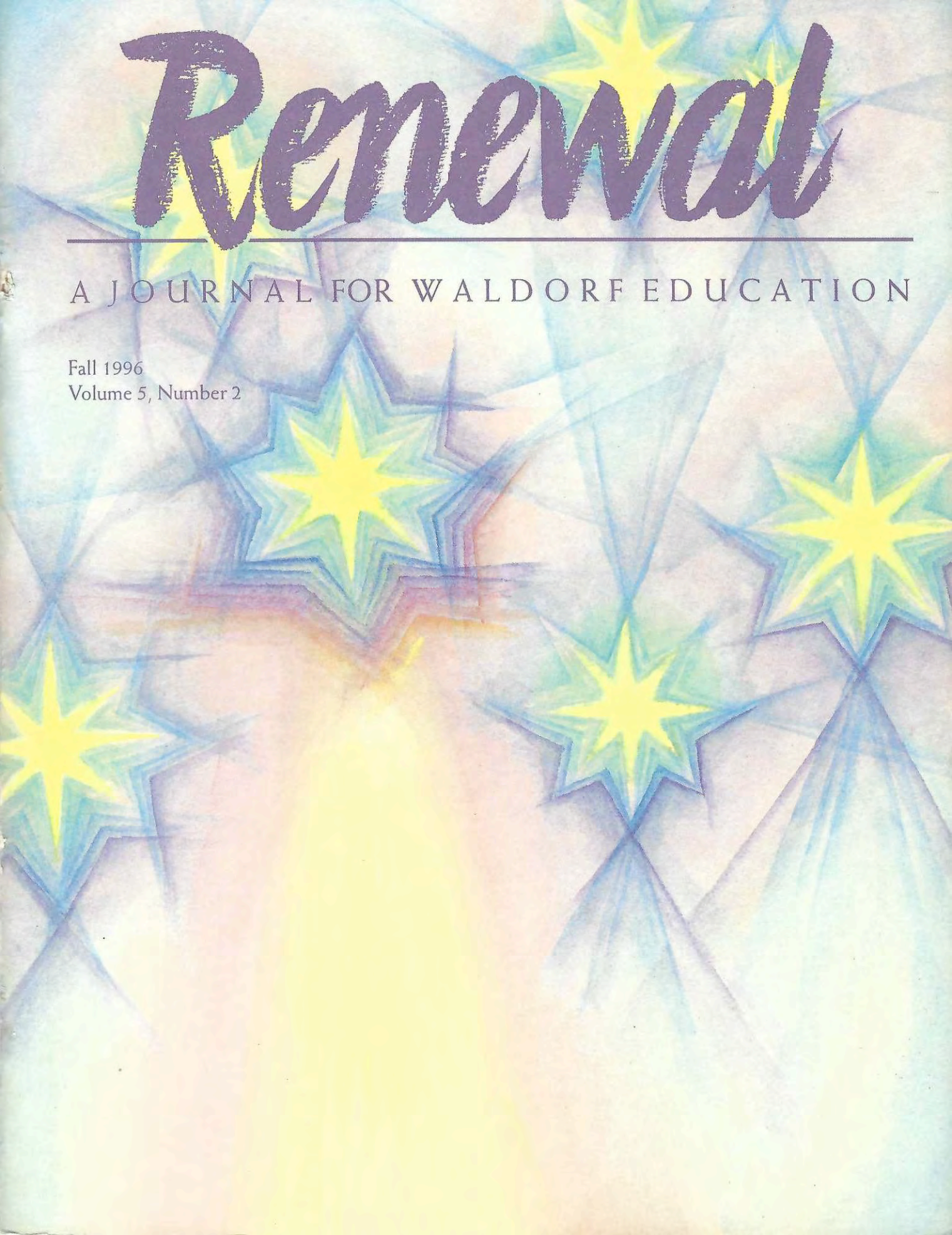


Renewal



A JOURNAL FOR WALDORF EDUCATION

Fall 1996

Volume 5, Number 2

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Editor's Column

Waldorf educators often speak of "the nine-year change." This occurs when the child — typically between the ninth and tenth birthdays — begins to experience self and world in a new way. The innocence and naïveté of early childhood and the sense of being at one with other persons and with the environment fall away. An awareness of self as separate and independent begins to develop. This stage, while often discomfiting to the child, is a necessary step on the way to maturity and adulthood.

Magazines, like human beings, pass through stages of development. *Renewal* seems to be going through its "nine-issue change."

Last spring, as issue nine (Volume 5, Number 1) was in production, those of us involved in *Renewal* all agreed that the magazine seemed to have passed through its infancy and early childhood and was ready for its next stage of life. AWSNA hired magazine consultant Leonard Jacobs of Boston to look at the magazine, how it was administered and how it was produced, and to suggest changes. After many visits, interviews, conversations, and conferences, Leonard submitted a report that included an appraisal of what we have done and a set of recommendations of what we might do in the future.

Leonard commented positively on the first five years of the magazine. He observed that *Renewal* has come to play an important role within the Waldorf movement as a forum for the exchange of ideas and information. He felt, though, that the magazine can and should reach out more effectively to a much wider audience — to all persons who are sincerely interested in the renewal of



education in our society. Leonard made many suggestions regarding editorial policy, production procedures, administrative structure, and marketing and distribution. In coming issues, readers will see evidence that these suggestions are being implemented.

Already in this issue, changes in format and layout have been made. We would be very happy to hear from you, the readers, about your reaction to *Renewal*'s new look. And we are, as always, interested in your responses, positive and negative, to articles and in your suggestions for future themes.

As *Renewal* moves into its next stage of life, I would like to draw attention to the work of its Editorial Advisory Board. The board consists of Patti Livingston, Henry Barnes, and James Pewtherer and has as its primary responsibility to select the articles that appear in *Renewal*. Donating their time and energy pro bono, Patti, Henry, and James have read and commented on every one of the hundreds of articles submitted during the past six years and have attended many long and taxing editorial meetings. Working out of a deep commitment to Waldorf Education, they have skillfully guided the magazine through its first years. They deserve the deep gratitude of all who have benefited from *Renewal*.

Ronald E. Koetzsch
Ronald E. Koetzsch

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Renewal thanks Amber Padgett, a twelfth-grade student at the Sacramento Waldorf School, for the illustrations accompanying the two articles about birthdays; Michaelmas Press for the artwork illustrating the article by Michael Miller; David Sciarretta for the photos accompanying his article, and the Anthroposophic Press for the cover art in the Book Review section.

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News From AWSNA - The Association of Waldorf Schools of North America

by Dave Alsop, Chairman

The initiatives undertaken and the decisions made by AWSNA delegates at their annual summer meeting are indicative of the important issues that live in the Waldorf movement today. The establishing of clear relationships is one such issue.

The delegates accepted as a full member school the Lake Champlain Waldorf School in Shelburne, Vermont. Founded in 1984, this school graduated its first eighth-grade class this June. Congratulations to everyone in this vibrant Waldorf community.

Also, the delegates created a new category of membership for schools in the early stages of development. This "New Initiative" membership allows young schools to feel themselves part of the Waldorf movement and to be included in many aspects of its collective life. The category also ensures that schools that claim to be Waldorf schools do in fact have a strong commitment to the essential elements of Waldorf Education. These elements include: a central role for Anthroposophy in the life of the school; properly trained teachers and staff; freedom from outside control or restraint; and a sense of collegiality and community with other Waldorf schools. These factors are critical to the development of healthy schools and of a healthy movement. AWSNA feels it can encourage and nurture as Waldorf schools only those which are committed to these essential elements and are



striving to manifest them.

This fall AWSNA mailed invitations to apply for New Initiative Member status to over 150

schools. We hope that perhaps forty or fifty of the schools will qualify and will begin a mutually beneficial relationship with AWSNA and with other member schools.

The delegates made two other important decisions, each difficult and each preceded by long, complex deliberations. One was that only independent, non-public schools are eligible for AWSNA membership. The other was that schools which do not qualify or do not choose to join AWSNA cannot represent themselves as Waldorf schools. Hence, the many Waldorf-oriented magnet and charter schools in the public system, are not — according to our definition — Waldorf schools, cannot join AWSNA, and may not represent themselves as Waldorf schools.

We hope that the clarity of this policy will remove the confusion that has surrounded the relationship between these schools and AWSNA and Waldorf Education. We are happy that public schools are working to bring something of Waldorf Education to public school children. We believe, though, that there must be a clear distinction between a Waldorf-influenced public school and a true Waldorf school that functions as a free cultural entity independent of outside control and restraint.

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LETTER TO THE EDITOR

The Waldorf movement claims that its primary challenges are low salaries, a lack of a deep understanding of Anthroposophy among parents and teachers, and too few teachers to meet demand. My experience with Waldorf Education as a movement suggests that there is another more basic problem from which this lack of abundance stems.

For most of its history, Waldorf Education has been separated from the mainstream culture, an island unto itself. An advantage of this isolation has been that a refined, elegant, logically consistent, and heartfelt approach to educating the whole child has been brought to full flower without outside interference and nay-saying. But the historical destiny of Waldorf Education is not to rest forever in the cozy womb of isolation. The seventy-five years of sequestration was the movement's period of infancy and childhood, a period that is now over. Living alone at home with mother is no longer age-appropriate. It is time for the Waldorf movement to come out and meet its social destiny with other like-minded movements.

In North America and elsewhere, a genuine renaissance of wisdoms is taking place. Rediscovered traditional ideas and practices, as well as new insights and approaches, are rapidly becoming a powerful cultural force, an alternative mainstream. Waldorf is not

alone as a vehicle for actualizing human potential. It can partake of greater abundance if its leaders build rather than burn bridges between Waldorf Education and movements with a similar worldview and aspiration.

I believe that the Waldorf movement's main challenge is to acknowledge the strong, natural affinity between itself and other holistic, healing, and heartfelt movements, spiritual groups, and therapies.

I share the concern of many that the integrity of Waldorf Education not be diluted by New Age, pie-in-the-sky fads. But the Waldorf movement must recognize the fact that many prospective parents participate in other spiritually oriented, forward-thinking movements, and that for most teacher trainees Waldorf Education is not their first encounter with the spirit.

Waldorf leaders can begin helping the movement to appreciate the similarities rather than the differences between the Waldorf movement and other movements that also have a spiritual view of the world and of the human being and also aim at the realization of human potential. When they do so, the Waldorf movement will compete much more effectively for prospective parents and teacher trainees.

Bruce A. Dickson
Los Angeles, California

PROFILE

BETTY STALEY



Some people believe that Betty Staley has at least three clones working with her on behalf of Waldorf Education. Betty denies

this. Still, her contribution to the movement during the past thirty-five years has been remarkable.

Betty was born of Russian immigrant Jewish parents in New York City and was educated in public schools there and in Florida. She encountered Anthroposophy and Waldorf Education while a student of Stewart Easton at the City University of New York. The many landmarks of her career since include

- Trained to be a Waldorf teacher at Michael Hall in England (1959-60).
- Helped "re-found" the Sacramento Waldorf School in 1965 and served there as a kindergarten, crafts, and class teacher.
- Helped "re-found" a teacher training program in 1971 at the Sacramento Waldorf School.
- Founded the Sacramento Waldorf High School in 1974, and taught history and literature there for twenty years. Also served as faculty chair.
- Helped found Rudolf Steiner College in 1976 as a center for Anthroposophical studies and for Waldorf teacher training.
- Wrote a classic book on adolescence entitled *Between Form and Freedom*, now in its third edition and translated into Japanese and Spanish.

Continued on page 7

Birthdays in the Kindergarten

by Holly Koteen

One of the strongest impressions I carried away from the birth of a friend's baby was of the "fullness" of the room where the event had taken place. Others I know have said they have had a similar experience upon visiting a family and their newborn shortly after the birth. Certainly the love of the parents and the warmth of family are perceptible, but the subtle feeling of fullness seemed to extend beyond these palpable realities.

In her book *Childhood*, Caroline von Hydebrand refers to the many artistic depictions of the birth of Jesus that include mountains in the background, plants and animals in the foreground, the cave with the mother and child in the center, and the whole scene surrounded by the starry heavens, with hosts of angels bending toward the child. What is represented, she reminds us, is the entire universe with all its kingdoms and beings in attendance at this birth.

She goes on to say that this same miracle happens at the birth of every child! Conception and birth arouse both heavenly and earthly forces, and all these forces must work in harmony in order that a spiritual being can become a human being on earth. These

thoughts resonated deeply with my own experiences around the newborn child.

I have also noticed in my kindergarten that a child whose birthday is imminent wears a certain glow around him- or herself. Many times I find myself thinking: Isn't this something more than excitement? After reading Caroline von Hydebrand's book, I began to imagine that cosmic beings and forces might also gather around a child on the anniversary of his or her birth. Together with the parents in



my kindergarten, I continually strive to understand the wonder of birth and incarnation and to find appropriate ways to honor the significance of an individual child's birthday in the years that follow.

When parents in my class attend a birthday celebration for their child, they often find themselves experiencing strong emotions — sometimes accompanied by tears. The intimacy of the birthday ceremony and the openness with which the rest of the children share in the joy of the birthday child can be quite moving.

We begin our preparations on the day before the birthday celebration. The other children draw colorful crayon pictures, which are made into a birthday book. Sometimes I also bake a cake with the children, and sometimes the child's parents bring in the birthday treat.

The birthday table is decorated with seasonal flowers and

Holly Koteen was born in the South Pacific and spent her first seven years in China and Japan. After traveling widely in Europe during her early twenties, she settled down on a farm in the Pacific Northwest.

She discovered Waldorf Education while helping to start an alternative school for her three young sons. Holly has been a kindergarten teacher at the Seattle Waldorf School for seven years. In 1991-1992 Holly, her husband, and two younger sons traveled around the world together.

greenery and candles on the day of the celebration and sits in the middle of the story room with the other children seated in a circle around it. When the parents and the birthday child enter, the children join in singing,

"In heaven shines a golden star...."

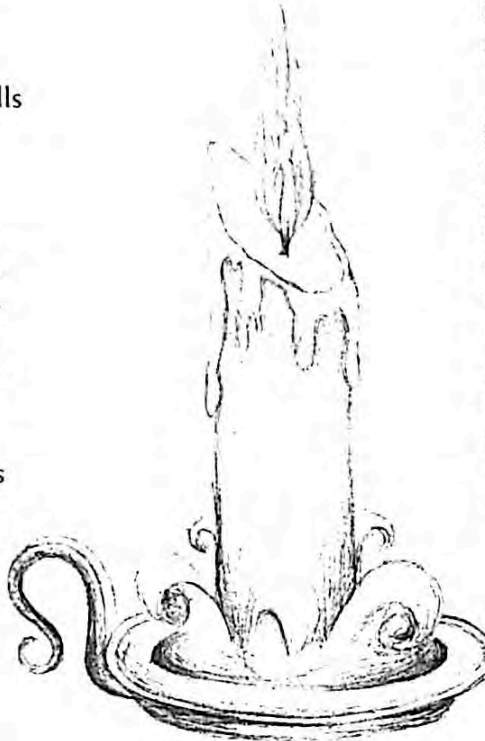
During the kindergarten birthday circle, the teacher tells a story of the child's journey from the spiritual world to earth with images that may include a walled garden with clouds, a rainbow bridge, or a golden boat. In my kindergarten, the birthday child and I walk slowly around the birthday table as I describe the "little angel's" first glimpse of earth and the various wonders of the season of his or her birth. I then return the child to the parents, light the candle representing the birth and say, "From the first moment, the family loved this child with all their hearts and called him/her

_____." The children pronounce their friend's name with great enthusiasm.

In some kindergartens, teachers (having already conferred with the parents about the child's birth and early years) tell a little story for each year of the child's life thus far, lighting one of the candles either before or after the anecdote. I prefer that the parents be the storytellers for this part of the ceremony as it brings them more strongly into the celebration. I also sense that the other children like to hear the stories in the parents' own voices and words

After the last candle is lit,

we sing "Happy Birthday," and the child blows out the candles. Parents are invited to join us for a snack and to spend the rest of the day with us. A teacher's gift for the birthday child may be a painting, a verse, or something handmade.



While birthday celebrations vary from one kindergarten to another, there is a particular mood that teachers hope for. The experience of a colleague, which was shared in the newsletter of the Waldorf Kindergarten Association several years ago, has helped me characterize this mood

While baking a birthday cake for her friends, she had the realization that the two-layer round form of the traditional birthday cake could be seen as a symbol for the globe. The upright candle could be seen as the individual "I" with its head closer to the heavens and with its feet planted firmly

in the earth. When we blow out the light of the candle we are, with the breath of our own life, gently breaking off from the heavenly light and affirming our decision (consciously as an adult or unconsciously as a child) to have come down to earth. Our secret wishes, before blowing out the candle, help us to reconnect to our life's purpose.

For me, the whole kindergarten birthday celebration can be seen in the same way. The circle we form around the birthday child will, we hope, allow him or her to stand upright in the center and affirm (unconsciously, of course) the decisions in this life. Perhaps at the same time we are making a welcome space within the birthday circle for the spiritual presences who also care for the child and for all of us

Birthdays at Home

After experiencing a birthday in the kindergarten many parents want to re-envision how to celebrate their children's birthdays at home. My discussions with parents have yielded several wonderful possibilities for new family traditions.

An important point to keep in mind is that a birthday encompasses the whole day, from waking until bedtime. The birthday can be anticipated the evening before. The past year can be remembered with the sharing of stories by family members at the dinner table or after dinner. Before bedtime the parents can sit with the birthday child and look at the family picture album and add some recent photos to it. This

gently helps the child recognize his or her growth over the years.

There are various ways to honor the birthday morning. An early morning walk, a birthday breakfast prepared by the child's siblings, a candle and a flower at the child's place at the table are some ways that can mark the birthday morning as special. Such simple gestures and images speak to the young child more powerfully than repeated verbal expressions of recognition. Quiet reverence should be the keynote of both the birthday eve and the birthday morning and may require conscious effort and advance planning by parents.

A birthday party represents an opportunity for many creative activities. An activity that the birthday child especially enjoys can give the party a natural focus. One six-year-old boy in my kindergarten wanted to do a play of Peter Pan, so his father organized simple costumes for all of the children who wanted to participate and played Captain Hook himself.



Another parent asked each of the children invited to her son's birthday party to bring (with the help of their parents) a song or a game to share. Some parents have focused the

party around a seasonal craft activity such as the making of "herb dollies."

The birthday child can also enjoy making placemats, decorations, or favors for the children who have been invited to the party. A Japanese girl in my class and her mother made origami figures and set them on the table at each child's place. Being involved in the party preparation is a positive channel for the heightened energy of the birthday child.

Each birthday is truly a milestone for the growing child. This aspect can be acknowledged by parents with little rites of passage. One way to do this is to have the child help sort through outgrown clothing and toys and to choose special items to pass on to friends and siblings. Another is to give the child a new chore or responsibility in the household that reflects the child's growing capabilities. When such a change is made at a birthday, it is endowed with a sense of privilege and is less likely to be resisted.

As always, when we parents and teachers find ourselves having to become more conscious on behalf of our children, we benefit as well. The subject of birthdays touches on the mysteries of human biography. Working with our children's birthdays can also help us better understand our own lives and perhaps find new ways to celebrate our own milestones.



Continued from page 4

- Led groups of students to the Soviet Union and Eastern Europe in 1987 and 1988.
- Lived for a year (1992-93) in Eastern Europe, taught at the Waldorf teacher trainings in Latvia and Russia, and lectured on Waldorf Education in Poland and Lithuania
- Co-founded the (Waldorf) Multicultural Committee to explore how Waldorf Education can relate to children of the various ethnic and cultural groups in America. Published three journals on multicultural education.
- Chaired the committee that helped guide the establishment in Milwaukee of the first Waldorf-influenced public school in the United States.
- Founded, in 1993, the first Waldorf high school teacher training in the United States.
- Betty also raised three children, each of whom attended the Sacramento Waldorf School from kindergarten through grade twelve. She now has a grandson in The Waldorf School in Lexington, Massachusetts

Betty's deep interest in the education of children of all ethnic backgrounds is manifested in her new book, *Hear the Voice of the Griot: A Guide to African Geography, History, and Culture*. The book is a unique 400-page sourcebook that includes sections on African spirituality, fairy tales and myths, saints, art, music, songs, and games. It is available from the Rudolf Steiner Press in Fair Oaks, California. R.E.K. ☸

For information regarding AWSNA-sponsored "Celebrate Africa" curriculum conferences for teachers, scheduled for March and October 1997, please contact Marianne Alsop at AWSNA, (916) 961-0927.

A Child's View of Birthdays

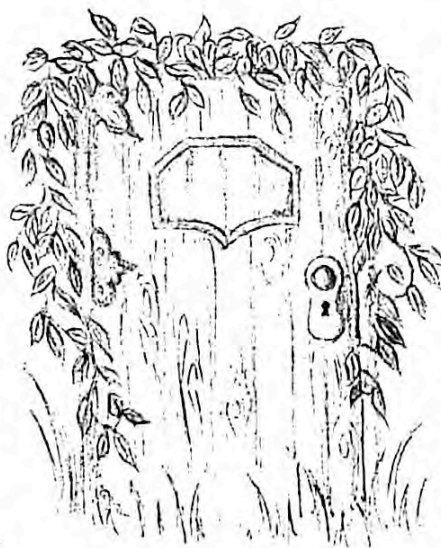
by Joan Almon

It is wonderful to see how young children perceive birth and the birthday experience. Of course, they cannot fully tell us, but sometimes they express an image or thought that is full of insight. One child said to me, for instance, "Soon my birthday is coming down," and I suddenly saw all of our birthdays circling above us like a mighty zodiac, each descending to us at the right moment.

Other children speak knowingly of the rainbow bridge that they crossed at the moment of birth. One child looked at a rainbow in the sky and said with joy to his mother, "Oh look, Mommy, a baby is being born." Another child, born in Germany, but now living in Spain, asked his mother with some concern, "Mommy, how are babies born in Spain? There are no rainbows." Another child drew an earthly garden with a rainbow above it and a child sliding down the rainbow into the garden. An angel hovered overhead watching.

A six-year-old recently drew a series of pictures as an end-of-year gift for his kindergarten teacher. The first was a rainbow, and with it he began dictating a story to his mother. He next drew a door with a knob in the middle and said, "This is the door to the earthly garden,

and every child needs a door on his or her birthday." Next came a circular form with a large cross in the middle, a picture often drawn by three-year-olds when they feel their "I" take hold and stand more firmly on the earth. "After the door opens, you see this," said the child, referring to the circle with the cross. Finally, he drew a small circle with a cross and placed it in the middle of four



pathways raying out in the four directions. Two paths were closed at the end, one was open, and one was open and led to flowers. Of this picture he said: "Then there are other paths [that go to nothing], but one goes to the flower garden."

In my kindergarten, our birthday story always included a picture of a flower garden with children playing in it. In the story, the child in heaven looked down and longed to play in the garden with the other children. Perhaps the children mentioned above had such a garden in mind, the garden of the earth full of flowers, abundant with colors and light. Even those children whose lives are very difficult see the earth as wearing a beautiful, glowing mantle, especially at the time of their birthdays.

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Joan Almon first encountered Waldorf Education while helping to start an alternative school in Baltimore in the early 1970s. She recalls, "What we took from Waldorf Education touched the children at a deeper place." Joan then spent about twenty years as a Waldorf kindergarten teacher, including time in schools in Austria and Germany. Since 1990 she has been the director and guiding spirit of the Waldorf Kindergarten Association, lecturing and consulting throughout North America and in other parts of the world. Joan is a member of the Initiative Group of the Anthroposophical Society in America and a member of the Pedagogical Section of the School of Spiritual Science.

The Study of Arithmetic: An Introduction

by Harry Kretz

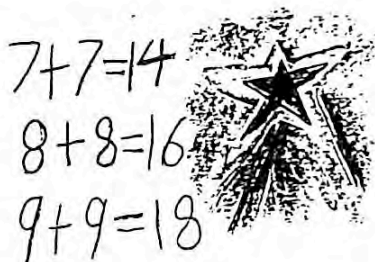
Arithmetic and geometry are essentially human activities. Animals are not interested.

It has been said that human evolution and the rise of mathematics are intimately connected, meaning that one can come to an understanding of the evolution of consciousness by studying the history of mathematical thought. The mathematical faculty is an essential attribute of the human soul, and each human being possesses it, whether he or she is particularly gifted or not.

Arithmetic — counting, working with the multiplication tables and with number sequences — has a relationship to our experience of rhythm. We experience rhythm outwardly in the rhythm of the day and of the year. We experience these cosmic rhythms inwardly also — in the beating of our heart and in the expansion and contraction of our lungs as we breathe.

Since rhythm is an intrinsic part of our experience of ourselves and of the world, the discovery of number patterns is a source of great joy and wonder in children — and in adults whose natural love of numbers and number relationships has not atrophied. A feeling of well-being accompanies such discoveries and a feeling also of

joy at having arrived at a deeper understanding of the secrets of the world. Some discoveries require hard work, but the confidence that the next discovery will be as satisfying as the last and worth the effort leads many people to be actively involved with numbers just for fun. Notice the many puzzle books available.



Geometry relates to our experience of space as arithmetic relates to that of time. The pleasure of playing circle games, square dancing, and working with designs of all kinds attest to this deep connection between geometry and our experience of the world around us. The symmetry of the Platonic solids — the tetrahedron (four faces), cube (six faces), octahedron (eight faces), dodecahedron (twelve faces), and icosahedron (twenty faces) — and the curves of conic sections and of spirals have a strong appeal. The "golden section" or the

divine proportion was so named by persons whose artistic sensibilities led them to recognize that geometry has its origin in the realm of the non-material, in archetypal space relationships, in cosmic forms made manifest.

The confidence in the reliability of number relationships and the joy in the beauty of geometric forms help the wholesome, healthy growth and development of the child. But for this ideal to be realized, students need to experience mathematics under the guidance of teachers who have imagination, enthusiasm, and a love for children. These are teachers in whom the mathematical faculty is alive and a source of inner joy.



Harry Kretz, a native of Canada, has been active in Waldorf Education for thirty-five years. He was for many years a class teacher at the Rudolf Steiner School in New York, and later taught mathematics, music, and other subjects at the high school level. Now retired from full-time teaching and living in Harlemville, New York, Harry is active as a consultant to schools and as a teacher in various Waldorf teacher education and teacher training programs.

Multiplication Tables Can Be Interesting

by William Harrer

This classic little piece about teaching arithmetic was written forty years ago and appeared in the Winter 1957 issue of Education as an Art, the bulletin of the Rudolf Steiner School (of New York) Association.

Memorization of the multiplication tables is an indispensable tool for the student of arithmetic. Even a young child can visualize fairly easily that $2 \times 2 = 4$. However, to visualize and to follow consciously the process whereby we multiply 7×8 is very difficult even for an adult, and is at best slow and inefficient. An adult knows that $7 \times 8 = 56$ because it has been etched into memory. Thus each child in school needs to learn the multiplication tables "by heart."

While this memorization is easy for some children, it is very difficult and tiresome for others, especially those to whom the world of numbers is yet strange. When the tables are memorized abstractly, as one memorizes historical dates divorced of meaning or understanding, the material becomes a burden and usually is forgotten as soon as the memorizing process stops. The whole experience can be a drudgery that leads to a deep and lasting dislike for everything dealing with mathematics.

There is no reason why the learning of tables should be a drudgery to any child. Every mother who observes her child knows of the joyful, untiring activity of counting when he begins to learn his numbers. It is not an accident that many nursery rhymes deal with numbers and with counting. Keeping alive this natural joy and desire in rhythmical counting is an old and successful method of working with the tables. It has been abandoned by modern educators probably because it has degenerated into a meaningless drill. The most interesting way of reciting the tables can become dull if excessively used without variation. If, however, the teacher succeeds in enlivening the old method by filling

the old basket continuously with new and attractive fruit, the rhythmical recitation of the tables will be an activity wholeheartedly enjoyed by the children.

When the kindergarten child recites his nursery rhymes, he satisfies an innate desire for rhythmical speech. When he reaches the grades, he can recite the multiplication tables and find in them the same sort of natural, satisfying activity as in:

Three is one times three,

Six is two times three,

Nine is three times three, and so on.

And when the recitation is accompanied by physical movement, it becomes also a pleasurable and effective exercise.

Of the many possible ways of working with the tables, only a few can be mentioned. In practicing the threes-table, for example, the children walk in a circle, counting 1, 2, 3, 4, 5, 6, and so on, taking one step to each count and clapping their hands with each step. Then they do this again, accenting 3, 6, 9, and so on, and stepping more firmly and clapping more loudly when they say the numbers that are multiples of three. After several rounds of this, 1 and 2, 4 and 5, 7 and 8, and so on, are not spoken or are spoken very softly, and the claps and steps that

William Harrer was born in Germany and trained as an engineer. He emigrated to the United States in the early 1930s and began teaching at the Rudolf Steiner School in New York City. William Harrer was for many years a class teacher at the school, a highly regarded teacher of mathematics, and the school treasurer. He was founder of Camp Glenbrook, Marlboro, New Hampshire. Mr. Harrer died in the late 1970s.

accompany them are rapid and light. The numbers 3, 6, 9, and so on, only are spoken and the claps and steps that accompany them are firm and loud. Also, the children stop moving each time they come to a multiple of three and thus experience a slight shock.

In another exercise of the threes-table one can make use of a eurythmy exercise — the short, short, long rhythm, for instance — in which two short steps are followed by one long one.

Still another excellent exercise can be used with any one of the multiplication tables. Let us use, for example, the eights-table. The children run swiftly and lightfootedly for eight steps, stop suddenly for a moment, and then continue as before, up to 16, then to 24, and so on.

When such exercises are thoroughly enjoyed, the tables do not become a burden in the storage house of the brain. One can say that they actually become part of the child because his whole being has been used in the learning process.

Instead of doing these exercises in a circle, the children can move along the sides of a geometrical figure that is at first drawn on the floor and, later on, just imagined. For the threes-table, the basic form is the triangle; for the fours-table, a square; for the fives-table, the pentagon, and so on. This creates the possibility of combining many interesting geometrical forms and transformations of forms. Thus the child not only learns to know the tables but also becomes intimately acquainted with geometrical forms. This lays the foundation for a natural understanding of geometry in later years.

Working with the tables as described so far, however, only partially completes the work. There is another side that must not be neglected. The mentioned activities make use of the child's will impulses and his desire to express himself rhythmically. A quieter approach, contrasting with this very active "doing" of the tables, should also be used in order to bring about a balance.

The young students are eager to write down what they have learned, especially if it can be arranged in a chart. Here again, there are many possibilities, and the children should be encouraged to invent charts of their own. Charts of the multiplication tables appeal to the students' ability to reason and to discover patterns and

thus help sharpen and develop these capacities. On page 12 is a chart representing the multiplication tables. This particular chart is not a device for learning the tables because it cannot be introduced before the fourth grade, by which time the children are already familiar with the tables, at least up to the sixes-table. Rather it is a device to show the tables in a new light and to reveal many interesting relationships between them.

On the chart, the lines of the multiplication tables are drawn in such a manner that each table appears only once, and yet each line crosses all of the others. The drawing we arrive at is pleasing in its symmetrical and harmonious construction. It offers opportunities for many interesting arithmetical exercises that fascinate the child and awaken and stimulate the powers of observation. The children are very curious and expectant as the teacher draws the lines of the tables on the board — beginning with the ones-table and the twelves-table and with each line in a different color. After all lines are drawn, the pupils are eager to help place the numbers.

They soon discover that there is no crossing of lines for 2×2 , 3×3 , and so on, and we mark these places with special little squares. When the children see that all the squares line up in a definite order on the inside of the chart, they are happily surprised. The table for the little squares is new, and we name it "the squares table." It does not take long before the children know it by heart.

As we continue our exploration of the chart, one child discovers that the numbers in the middle on the top of the drawing are all even numbers 42, 40, 36, 30, 22, 12, and so on. The adjacent rows of numbers to the right and left alternate, even and uneven:

36, 35, 32, 27, 20, 11

and 49, 48, 45, 40, 33, 24.

The row on either side of it is again even.

30, 28, 24, 18, 10

and 56, 54, 50, 44, 36.

A little hint from the teacher makes the class see that by taking the difference between the numbers in sequential order, we find, in all rows

of even numbers, the following differences, beginning with the lowest number:

Center row		First even row to right of center
$42 - 40 = 2$	or	$30 - 28 = 2$
$40 - 36 = 4$		$28 - 24 = 4$
$36 - 30 = 6$		$24 - 18 = 6$
$30 - 22 = 8$		$18 - 10 = 8$
$22 - 12 = 10$		and so on.

In rows that alternate even and uneven numbers, we have:

Beginning with the square right of center	Beginning with the square left of center
--	---

$36 - 35 = 1$	$49 - 48 = 1$
$35 - 32 = 3$	$48 - 45 = 3$
$32 - 27 = 5$	$45 - 40 = 5$
$27 - 20 = 7$	$40 - 33 = 7$
$20 - 11 = 9$	$33 - 24 = 9$

and so on.

By subtracting the corresponding numbers on the right and left sides of the chart, we obtain the thirteens-table, as follows:

$24 - 11 = 13$	$33 - 20 = 13$	$40 - 27 = 13$
$36 - 10 = 26$	$44 - 18 = 26$	$50 - 24 = 26$
$48 - 9 = 39$	$55 - 16 = 39$	$60 - 21 = 39$
$60 - 8 = 52$	$66 - 14 = 52$	$70 - 18 = 52$

and so on.

By adding corresponding numbers, as, for instance,

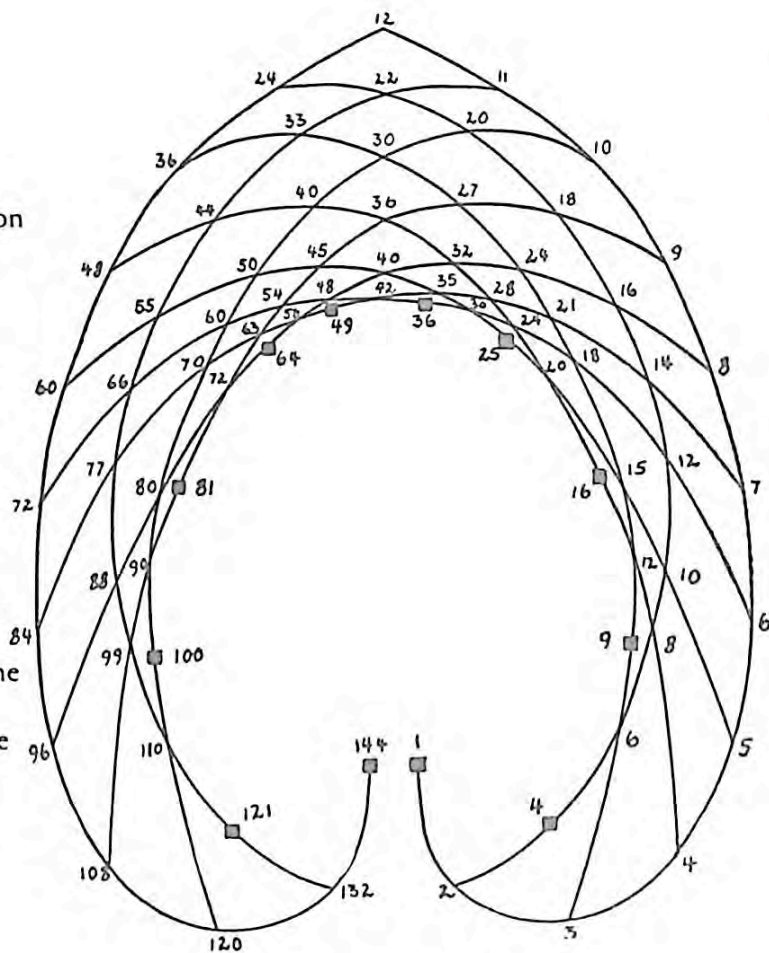
$144 + 1 = 145$, and $132 + 2 = 134$,
and then subtracting the sum, we always get the same answer, provided we follow sequential order. This time we begin at the bottom of the chart:

$144 + 1 = 145$	or	$132 + 2 = 134$
$132 + 2 = 134$		$121 + 4 = 125$
-11		-9
$120 + 3 = 123$		$110 + 6 = 116$
-11		-9
$108 + 4 = 112$		$99 + 8 = 107$
-11		-9

These are only a few of the interesting discoveries that the children make by studying the chart. They experience the multiplication tables in a new way. Exploring this and other charts helps to make the multiplication tables not only interesting but captivating as well. For the child who experiences numbers in this way, mathematics becomes a real experience of the whole being.

Working with the tables in the indicated manner is never drudgery. It is never dull. It offers ample opportunity for keeping the more quick, alert mathematicians in the class on their toes and at the same time keeps the slower ones constantly interested and alert

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The Ant and the Caterpillar: Geometry in the Eighth Grade

by Harry Kretz

In a Waldorf school, the first introduction to the observation that the square of the hypotenuse is equal to the sum of the squares of the other two sides comes in the fifth grade. I usually use the example of the ancient Egyptians. After the annual flooding of the Nile, the Egyptians reestablished their field boundaries using a twelve-foot rope knotted at the three- and seven-foot marks. Joining the end and pulling tight at the knots gives a 3 - 4 - 5 triangle. The students make such a surveying rope and experience the right triangle it forms and the relationship of the three sides ($3^2 + 4^2 = 5^2$).

In the eighth grade the children study the theorem of Pythagoras again. Mathematics needs frequent review, but the revisiting of a mathematical concept must be done so that the students have a new experience of it. How can students' interest be kept alive when we review the theorem?

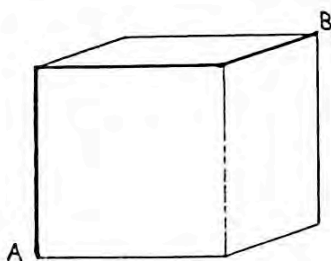
The story of the ant and the caterpillar does not present a real-life situation, but sometimes a piece of serious whimsy can be a quite effective teaching tool. I often use the story with an eighth grade when they study Platonic solids and have to use the theorem of Pythagoras. Afterward, if I ask, for example, how we can deter-

mine the distance from mid-cube to vertex, hands go up and the students remind each other that it is "half the distance of Termite's passageway!"

Here is the story of the ant and the caterpillar. A teacher might review the Pythagorean theorem on the day before telling it.

The Ant and the Caterpillar

It was a very busy anthill, but rarely did the ants suffer from overwork. One ant did, however, and she was required to rest for a time a short distance away until she felt better. It happened to be at one corner (Point A in the illustrations) of a child's cubical play block, lost in the garden under leaves and grass. Even an overworked ant cannot sit and do nothing. She decided one afternoon to explore the cubical shape, walking along an edge so as not to get lost. She came to a fork, took a right turn, then a left turn, and came unexpectedly to the home of a bug (Point B in the illustrations).



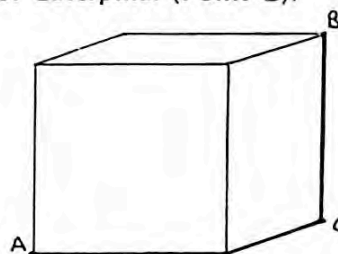
"Good afternoon, Ant," said Bug, "Join me in a cup of tea?"

"Thank you," said Ant, and they talked about the weather and drank tea.

"Come again tomorrow," said Bug, and Ant came the next day and the day after.

Question 1. It was a one-inch cube. How far did Ant travel to visit Bug?

One day Ant took a different route and passed the home of Caterpillar (Point C).

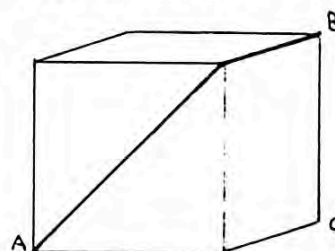


"Good afternoon, Ant," said Caterpillar. "Where are you off to?"

"I'm off to visit Bug," said Ant.

"But this is the longest way to go," said Caterpillar. "You could shorten the trip if you went diagonally across one face of the cube and then along the edge to Bug. I'll show you."

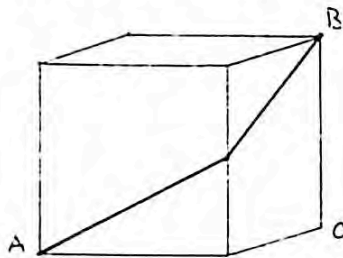
Now Ant knew a shortcut.



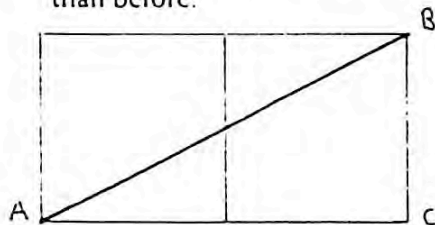
Question 2. How far did Ant travel using the shortcut?

After Ant had left, Caterpillar suddenly pointed to himself and said, "Stupid! There's even a shorter way."

He visited Ant and explained how she could go on a straight line to Bug, and even though it meant she had to turn a corner, she could save even more time.



It doesn't look like a straight line, but if you imagine the two faces of the cube laid flat, it would be a shorter distance than before.



Question 3. How far did Ant travel along this new shortcut?

When Caterpillar got home, he said, "Stupid, stupid!" With Ant's cousin, Termite, the way could be made shorter than ever." Caterpillar hurried to Termite's place and told him of his plans to shorten the path for Ant when she visits Bug.

Termite was happy for a chance to show off his skill. He positioned himself at the corner of the cube and began to eat into the wood. The chips flew, and in a very short time Termite had tunneled a passage from Ant's place straight through the cube to

Bug's place, shortening the distance more than ever.

Question 4. How far is it now through the center of the cube from Ant's place to Bug's place?

To celebrate, Bug put on the kettle, and they all talked about the weatherproof passage and drank tea. Ant soon felt better and returned to the anthill with fond memories of her adventures with Bug, Caterpillar, and Termite.

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Answers:

1. 3 inches.
2. The square root of 2 (1.414) plus 1, or 2.414 inches
3. The square root of 5, or 2.236 inches
4. The square root of 3, or 1.732 inches (a little more than half the original distance).

Psychological Points of View on the Teaching of Arithmetic

by Hermann von Baravalle

The following excerpts are from an article originally published in Mathematics Teacher, a periodical of the National Council of Teachers of Mathematics. The article and other writings of Dr. von Baravalle are contained in The Waldorf Approach to Arithmetic by Hermann von Baravalle, published by Parker Courtney Press, Chestnut Ridge, New York, in 1996

The psychological approach in the teaching of arithmetic focuses on the effect that the learning of a subject has on the mind itself. It seeks to discover the creative impulses that can be conveyed through the lessons of arithmetic in the various grades.

Already with children at an early age, even before they enter school, phenomena due to creative contact with numbers can be observed. When the child begins to count, he becomes aware of the fact that his use of the words *one, two, three, four*, and so on, is different from his usual speech. These number-words have their regular sequence. The word *one* always comes first in counting. The word *two* must wait until *one* has passed, and *three* must wait even longer, and so on. Each of these words (except *one*) is preceded by another one

and is the key word for the following. If a child is given the opportunity to count out loud repeatedly, the impression of this sequence of words is strengthened, and a joyful response is awakened. The fact that the child hears himself speak connectedly in counting calls forth the satisfaction of moving within an ordered sequence. This satisfaction does not derive from indulging in subjective arbitrariness but from partaking in lawfulness.

From simple counting, arithmetic lessons can proceed in the first grade to rhythmic counting, accentuating some numbers in contrast to others. This can be done by speaking them louder or by pronouncing them more distinctly and slowly in comparison to others passed over more quickly. As an example, accent every third number when counting, and the sequence obtained is:

1 2 3 4 5 6 7 8 9 10 11 12

By accenting every fourth number the following sequence results:

1 2 3 4 5 6 7 8

9 10 11 12 13 14 15 16

In connection with these exercises, the pupils can walk or clap their hands in rhythm with the counting or perform any similar motion. Introducing the element of rhythm into

arithmetic brings it close to the experience the child has had in music.

Another view of arithmetic from the psychological angle is derived from the very nature of numbers. Numbers lead the activity of the mind beyond immediate perception. We do not perceive numbers as sense phenomena as we do colors, sounds, and the like. Numbers arise in our minds sometimes as something apart from or beyond ordinary sense observation.

Hermann von Baravalle (1898-1973) was born in Vienna, Austria, and received his Ph.D. in mathematics and education from the University of Vienna. In 1920 he joined the faculty of the first Waldorf school in Stuttgart, Germany, and taught there for sixteen years. When the Waldorf schools in Germany were closed by the National Socialist government in the late 1930s, Dr. von Baravalle emigrated to the United States with his wife Erica and their son. For many years professor of mathematics at Adelphi College in Garden City, New York, he was active in the Waldorf movement as a teacher, consultant, trainer of teachers, and as a founder of the Garden City Waldorf School. Dr. von Baravalle's lectures on mathematics were so brilliant and entertaining that he was sometimes known as "the Magician."

This fact becomes apparent when we recognize the motive behind the impetus to count. The leaves on the branch of a tree, for instance, would not excite in us the desire to count them; the result obtained would not be worth the effort. The case is different with the petals of a flower, for their number is often characteristic of the blossom and determines its shape. What makes it reasonable to count in one case and not in the other is the existence or the lack of a relationship between the elements we count. This is recognized in the fact that apples and pears can be added only after a relationship between apples and pears has been established under the common concept *fruit*.

An important factor from a psychological point of view is the continuity of thoughts during the lesson. If the problems introduced in a lesson deal, for instance, first with stretches traversed by trains, then with pipe lines that fill a container, and thereafter with the sales price of fruits and vegetables, the continuity of thought is disrupted with each new problem.

For example, after taking up $12 = 5 + 7$, one can give other compositions of this number.

$$12 = 1 + 11$$

$$12 = 2 + 10$$

$$12 = 3 + 9 \text{ and so on, until}$$

$$12 = 11 + 1$$

We learn that there are eleven different combinations adding up to 12. Then we can move on to the factoring of the number.

$$12 = 1 \times 12$$

$$12 = 2 \times 6 \text{ and so on, until}$$

we see that six combinations of numbers give the number 12.

Different numbers have different numbers of possible factors — pairs of numbers which multiplied together give the number. Thirteen has just two (13×1 and 1×13); 14 has four possibilities (14×1 , 1×14 , 2×7 , and 7×2). The children will seek the numbers with the most possibilities. As a rule the number of possibilities increases with the higher numbers. To judge the relative number of possibilities of a number, we investigate how far one has to proceed from it before encountering one with more possibilities.

Introducing the element of rhythm into arithmetic brings it close to the experience the child has had in music.

One of the numbers with many factoring possibilities is 12. No number below it offers more than four possibilities, while 12 itself offers six. Continuing from 12, that number of possibilities is not exceeded until 24 is reached. In the range from 1 to 100 the number 60 has the most factoring possibilities, which is not exceeded by any of the following numbers, including 100 itself. This fact explains the predominating role of the numbers 12 and 60 in our units of measurement. The clock shows 12 hours, the year has 12 months, the foot 12 inches, and so on. An hour has 60 minutes, a minute 60 seconds, the 60th part of $1/6$ of the

circumference of a circle is 1 degree, and so on.

What is of special importance from the psychological point of view for all school grades is the quality of thinking activity which is provoked by the methods employed. The result of arithmetic class may be a mechanical and primitive thinking that is concerned with the external world and its manipulation. Or it may lead to an intensive rather than extensive thinking, one that is inward, creative, and synthesizing. There are students who, when given a mathematical problem, will at once ask for a fixed rule or formula with which to solve it. Their work is not based on insight. There is no continuity in their consciousness just where the most real thought-connection should set in. They usually have primitive, mechanical mathematical concepts, conceiving any length as the sum of so and so many inches, any weight as the sum of so and so many grams. But neither a length nor weight is composed of parts; each forms a whole that is to be compared with others.

A more intensive thinking will be more apt to aim at comparisons, at proportional numbers, and less at dissecting and combining. If a measurement is three times that of another, this fact remains whether the measuring be done in meters or in inches. Nearly all the numbers used in the sciences are fundamentally proportional numbers. If a stone is said to have a specific gravity of three, that means that its weight is three times that of an equal volume of water, it is not a combination of three units

Psychological effects produced by various kinds of mental activities are naturally not limited to their respective realms. They continue to act in the conscious as well as in the unconscious as well as the sub-conscious spheres of our mind, and their influence finally affects even social life. No healthy relationship and cooperation between human beings can be founded on mechanical and one-sided thinking. Such thinking isolates one within oneself and builds no real link toward the understanding of the other person's point of view. Thus such thinking is often the cause of dissatisfaction and lack of self-confidence. It leads to an attitude of self-defense toward life without courage or initiative, or to a uselessly critical and cynical attitude.

The psychological effect of creative studies in arithmetic is at least as important as the knowledge of the subject it imparts. Whoever looks only for the "practical" side in arithmetic overlooks the truly practical effects within the psychological realm. Particularly in our day, working beneficially within this realm is increasingly essential. The dangers threatening cultural life and civilization today are not primarily due to any lack of detailed practical knowledge, but rather to psychological factors, which, in the final analysis, are the outgrowth of distorted thinking. The teaching of arithmetic as a means to educate the child toward sound and straight and creative thinking holds a key position in our work for a future society throughout the world.



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Waldorf Education and the Goethean Approach to Science

by John Barnes

Sooner or later anyone who becomes involved with Waldorf Education will encounter the term "Goethean science." It is generally accepted that this approach to science, pioneered by the great German poet and scientist Johann Wolfgang von Goethe, plays an important role in the way science is taught in Waldorf schools. It is also generally understood that the Goethean approach is phenomenological, holistic, and experiential. This sets it apart from modern reductionist science.

Over the past hundred years, mainstream scientists have generally dismissed Goethe as an amateur scientist who missed the boat of modern scientific development. This perception of Goethean science is slowly beginning to change. New interest in Goethe's science is beginning to see his approach as a very vital and much-needed complement to mainstream science. The realization is dawning that modern science itself can in fact be said to have missed the boat that Goethe began to construct two hundred years ago.

Given these circumstances, parents may wonder whether Goethean science is in fact real science and whether Waldorf students exposed to this approach

are receiving an education that will prepare them for life in a highly technical world that cannot be understood without a firm grounding in modern science.

This article briefly addresses these critical questions. In this issue of *Renewal*, the Book Review section introduces two new publications by scientists who have adopted the Goethean method.

What is "Goethean Science?"

In order to establish whether Goethean science is in fact real science we will do well to inquire first into the nature of science itself. Let us take the example of a scientific discovery that is well known and that demonstrates, though perhaps only through anecdote, the process of scientific inquiry.

Hiero, king of the ancient Greek colony in Syracuse, Sicily, suspected that his goldsmith had secretly substituted silver alloy for the gold given him to make a crown. The king consulted Archimedes, the renowned geometrician and inventor, and asked him to determine what proportion of silver alloy was contained in his crown. We do not know how Archimedes approached this task, but we can attempt to put ourselves in his position. We can assume that he knew that

gold was heavier than silver. A crown containing silver alloy would weigh less than an identical crown of pure gold. Replacing the crown in pure gold for the sole purpose of weighing it against the existing crown would, however, be an embarrassingly crude and costly solution — hardly an option for Archimedes. Was there no more elegant way of

John Barnes was born in New York City in 1943 and attended the Rudolf Steiner School there and then the Waldorf School in Stuttgart, Germany. His early interest in Goethe's scientific approach came to expression in his Master's thesis comparing Goethe's style as a poet and as a scientist.

*After teaching for five years in Stuttgart and for twenty years at the Hawthorne Valley School in Harlemville, New York, he resumed his work in connection with Goethean science. His book *Nature's Open Secret: Rudolf Steiner and Goethe's Scientific Approach* will be published in the spring of 1997. He is Series Editor of the *Renewal in Science* series, published by Lindisfarne Press.*

solving the problem?

According to tradition, the solution came to Archimedes in his bath. As he climbed into the bath and the water level rose, he may have come to the realization that his body displaced a quantity of water equal to its volume. He may have also noted that his submerged body had lost much of its weight so that it almost floated in the water. He also knew from experience that, by contrast, a lump of gold would not lose so much of its weight but would sink directly to the bottom. Why? Was it not because its volume was smaller in relation to its weight? An inflated skin on the other hand, with a large volume and insignificant weight, would float upon the surface of the water and require considerable force to submerge. It was becoming increasingly clear: The greater the weight of a body in relation to its volume, the greater its relative heaviness or density.

Thus:

$$\frac{\text{weight}}{\text{volume}} = \text{density}$$

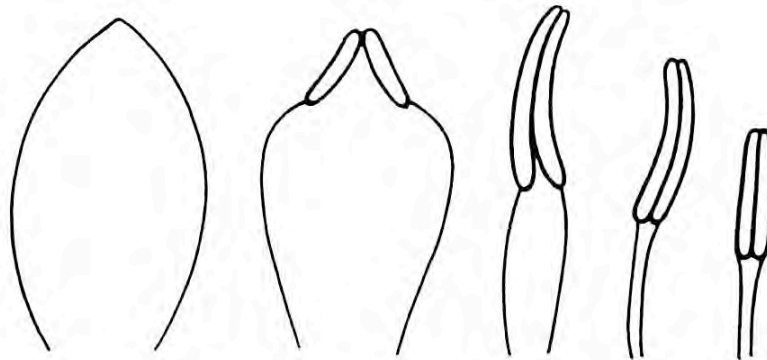
In a flash Archimedes must have "seen" the solution: by measuring the amount of water displaced by the crown he could determine its volume. An equal volume of pure gold could then be weighed against the goldsmith's crown! His exultation was reportedly so great that he ran, unmindful of his naked state, straight to the king's court crying, "Eureka!" ("I've got it!")

Wherein did Archimedes' scientific achievement lie? Why was it such an exhilarating experience? All of the factual components of his solution

— the relative heaviness of gold, silver, and other substances, the displacement of water by submerged bodies, sinking and floating, and the like — had long been a matter of experience. Archimedes' achievement lay in discovering the hidden relationships among these observations. And it was the experience of intuitively seeing these relationships that was the source of his exultation. His engagement led to further thought and experimentation, which culminated in his discovery of the principle of buoyancy still known today as Archimedes' principle.

whelming variety of plant forms. Goethe's achievement lay in recognizing the relationships among the specific forms that Linnaeus had isolated and defined.

For example: Linnaeus's system of classification distinguishes the green bud leaves, or sepals, the colored petals, and the thread-like stamens which surround the pistil in the center of the blossom. These organs are clearly defined in most plants — think of an apple or cherry blossom, for instance. Goethe saw that they were related. He noticed this relationship through his study of



Sequence of intermediate stages between petal and stamen in the white water lily blossom.

Now let us turn to Goethe's achievement in the field of plant morphology. Goethe was an extraordinarily astute observer of nature. But he acquired much of his botanical knowledge from the great Swedish botanist Linnaeus, who established a comprehensive method of plant classification. By systematically distinguishing various families and species as well as the various organs of the plant, Linnaeus brought order into the over-

such plants as the white water lily (*Nymphaea tuberosa*).

In this sequence of separate organs we see a gradual transformation, or metamorphosis, of the petal into the stamen. The white water lily reveals a metamorphosis that is not manifested in most other blossoms. Goethe observed similar metamorphoses in the vegetative leaves and in the fruits of plants and concluded that all the varied organs of the plant

can be understood as metamorphoses of one basic organ.

The water lily might have played the same role in Goethe's discovery of the metamorphosis of plants as did Archimedes' bath in his discovery of the principles of density and buoyancy. Both served as a place where natural laws manifested themselves. However, the phenomena offer only clues; their lawfulness is not given to us through sense perception. The hidden, yet manifest laws of nature are anticipated through interest and wonder, sought after through active questioning, and finally discovered through intuitive perception. Both Archimedes and Goethe were able to see beyond, or through, the fragmented facts and apprehend their hidden lawfulness. In principle, their methods were the same.

The Goethean approach does not limit itself to one specific approach but seeks to develop appropriate methods to apprehend the richness and lawfulness of each realm of nature.

There are, however, subtle but essential differences between the laws of inorganic and organic nature and, subsequently, between the kinds of cognitive activity required to grasp them.

The relationship between

the weight and volume of an inanimate object is fixed. It can be abstracted through measurement and formulated as a numerical ratio. The density of a body is no more than a summary of the relationship between its weight and its volume. This relationship as such remains external to the phenomena.

The relationships between the various parts of a living organism are of a different kind. The organs of a plant are related in a more dynamic way. One appears as a metamorphosis of the other. The seed, the leaves of the sprouting plant, the blossom, and the fruit are all diverse expressions of the same living entity. The lawfulness in their relationships is the organizational principle that actually brings forth the phenomena. This is not an abstracted, quantitative relationship as are the laws of physics. It is, rather, a dynamic principle, which works in the organism as a whole as well as in each of its parts.

As we have seen, the discovery of the concept of density required intense inner involvement and intuitive insight. However, now that the principle has been formulated, calculating the density of a substance can be accomplished by abstract, mechanical thinking. To actually follow the process of metamorphosis requires, in contrast, the rigorous employment of a dynamic, yet highly disciplined participatory thinking, which Goethe sometimes called "exact sensory imagination."

Popular mainstream biology still strives to explain organic life as resulting from complex biochemical processes. These

processes are certainly the necessary conditions without which organic life could not function. But the laws of chemistry are simply not rich enough to explain organic life. Chemical processes can be analyzed into sequences of causally determined, isolated events. Within living organisms, however, chemical substances are raised to such a complex and sublimated state that they become the vehicles for dynamic principles of a higher order. Thus plant morphology reveals the principle of metamorphosis. Animal behavior can be seen as the direct manifestation of sentience. Like the human physiognomy, gesture, and other "body language," behavior can be "read" as the manifestation of inner sentient life. Though dependent on physiological functions and biochemical processes, sentience comprises a reality in its own right, a reality governed by its own principles. Human actions, finally, can be determined by conscious insight into principles, such as justice, which involve human feeling but are irreducible to the principles of sentience. The Goethean approach does not limit itself to one specific approach but seeks to develop appropriate methods to apprehend the richness and lawfulness of each realm of nature. In this way, Goethean science can be seen as a necessary complement to contemporary mainstream science.

Waldorf Education and the Goethean Approach to Science

While it is true that the Goethean approach is often

taken in Waldorf science courses, its relationship to Waldorf Education goes deeper. It would in fact be correct to say that Waldorf Education itself is based on Goethean science as further developed by Rudolf Steiner to include research into human nature and child development in particular. Just as Goethe explored the metamorphosis of plants, Steiner explored the more internalized metamorphoses that take place in human life in the phases of childhood and youth. Observation enhanced through active inner participation leads to direct insight into the nature and development of the child and thus provides the basis for educational work. A good teacher will be able to "read" not only a child's physiognomy, but its posture, movements, writing, artwork, speech, and behavior. For these can be seen as immediate expressions not only of a child's momentary state but of its health, its particular stage of development, its temperament, gifts and handicaps, as well as of its deeper inner being.

In addition, a Goethean approach to the subject matter can be helpful in teaching. Young children respond to imaginative pictures presented in the form of stories or characteristic descriptions. These appeal to the child's feelings and give expression to a wisdom that is deeper and more nourishing to the soul than abstract principles or bare facts. A "physiognomic" approach, which allows the inner nature of the subject matter to speak through its external manifestations, engages and

meets the needs of young children.

The abstract intellect develops only gradually beginning around sixth grade. This is when the Waldorf science curriculum begins. From now on, students are no longer satisfied with a purely pictorial approach. High school students wish to penetrate through all externals to the underlying principles. However, they are not interested in bone dry abstractions but are deeply satisfied when they succeed in directly apprehending the principles in the phenomena. This requires a teacher's lively interest and inner flexibility in adapting his or her pedagogical approach to the phenomena under consideration.

Rudolf Steiner stressed that science and technology courses in Waldorf schools should bring the students as close as possible to the cutting edge of contemporary research. But rather than teaching finished facts and theories, Waldorf science teachers will want to involve their students in the scientific process itself. An appropriate way of achieving this is by reenacting the process of scientific discovery, beginning with the phenomena, proceeding to engage the students' inner participation, then penetrating to the underlying principles, abstracting them, and finally testing them. Scientific models should be introduced as such, i.e., as useful theoretical constructs, not as empirical facts.

It is essential that the students develop a fundamental grasp and adequate factual knowledge of contemporary

reductionist science. Teachers versed in Goethean methods will want to enhance and complement this knowledge through a phenomenological, holistic, and participatory approach to the phenomena, which leads to a still deeper, more comprehensive understanding of them. Through Waldorf teaching methods they will be able to encompass all of these various aspects of nature and make science an extremely interesting subject.

By instilling in their students a strong interest in the phenomena and in the process of scientific discovery, and by introducing them to methods appropriate to living nature, Waldorf science teachers will prepare a new generation not only for further progress in technology but also for working toward a truly ecological culture.



Thoughts On the Christmas Plays

by Michael Miller

When Rudolf Steiner — the founder of Waldorf Education — was a student in Vienna, one of his professors, Karl Julius Schröer, introduced him to three plays, known as the Oberufer Christmas Plays. Oberufer is an island in the Danube River, which, although it is in present-day Romania, has for centuries been home to a community of Germans. These people had brought from their homeland and preserved as a living tradition a cycle of three medieval folk dramas — The Paradise Play, The Shepherds' Play, and The Three Kings' Play. These are often referred to as mystery plays — not because they involve an unsolved crime — but because they depict events that relate to the deepest mysteries of human life. Rudolf Steiner recognized these plays as expressions of a simple yet profound spirituality, which had largely disappeared from Western culture. He encouraged performance of these plays among his colleagues and students and, when the first Waldorf school was founded, made their staging part of the cycle of the school year. In many North American Waldorf schools only the first or the first two plays are performed. R.E.K.

In autumn when the leaves on the trees change their color and begin falling, it is a signal that the year has reached its maturity and that a harvest is to be made. Each year, at the end of the season, the custom has been that the teachers of Waldorf schools around the world present their respective communities with a special gift. The teachers work together, combining their various talents and energies, to perform for their school community — for the students and their parents and friends — one or two of the three remarkable, medieval, mystery Christmas plays, commonly referred to as "The Christmas Plays."

As a longtime Waldorf parent and as a spouse of a Waldorf faculty member, I have many times received this unique gift, and I now welcome this opportunity to express my gratitude. I will do so by sharing some thoughts about what this special gift has meant to me.

In those years when my wife has taken part in these productions, I was able to see close-up what a tremendous effort is called for on the part of each teacher and to appreciate the special mood of loving sacrifice involved in the annual giving of this gift.

Watching from the sidelines, I saw the teachers who not only choose to take on the demanding activities of memorizing lines and undergoing long rehearsals and living through the anxieties of the final performances, but who do so in such a spirit of intensely joyful devotion, that it is nothing short of inspiring.

This selfless and self-transcending behind-the-scenes activity expresses the spirit in which these gifts are given, but what I really want to talk about is what my experience of these gifts has been — as one of the fortunate recipients. It may be that those involved in this activity of giving might now and again like to hear what their gift can mean for someone sitting in the audience.

The Paradise Play and *The Shepherds' Play* are different from most other medieval mystery plays. The first thing that struck me about them is that their self-mocking good humor toward sacred subjects indicated that they probably did not originate in church liturgy, that they were not the products of a staid and jealously defensive church hierarchy bent on keeping the faithful in line. I have since learned something about their history, and I have no doubt that they represent a genuine folk tradition undistorted by church politics. That

Waldorf teachers involve themselves in preserving these rare and unique cultural and spiritual treasures by sharing them with us adds a dimension to the special nature of their gift.

Already in 1920, Hermann Hesse could lament the fact that, in our rapidly advancing technological society, many of the folk traditions are being lost and that this loss is somehow symptomatic of our dying culture. This is what he wrote:

*As a feeble substitute for these lost traditions, what does our typical modern man have? He has fashion. Changing from season to season, fashion gives him the indispensable precepts for social life, tosses him the necessary stylish expressions, catch-words, dances, tunes — better than nothing, but nevertheless ephemeral, perishable, valueless. There are folk plays no longer, but instead this season's stylish entertainment, no folk songs anymore, but last month's smash hit tune.**

The same process of cultural decay that spurred Hermann Hesse to write these words three-quarters of a century ago has continued unabated and is more pervasive than ever. The opportunity to view the Christmas Plays — thanks to the Waldorf faculties around the world — is nothing less than a chance to be touched by a cultural event that is much more profound than the usual "flash-in-the-pan" products of changing fashion.

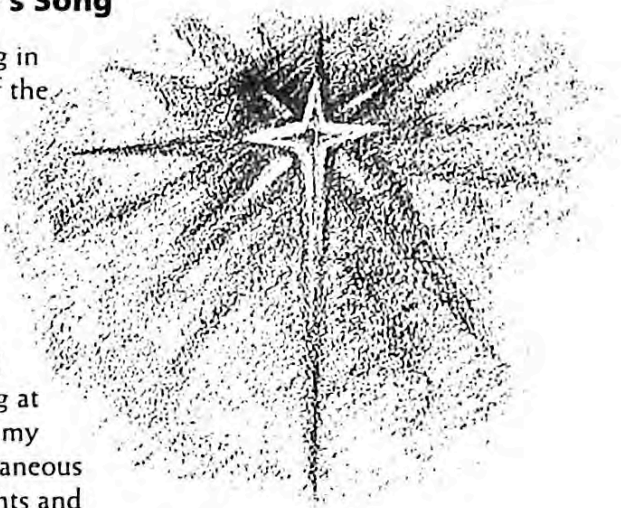
But beyond all the things that make the performance of these plays, as gifts, special, there is the more personally magical event that can happen for one who opens himself to the mystery these plays hold.

The Tree-Singer's Song

I remember sitting in the darkened gym of the Denver Waldorf School one year, watching and listening to *The Paradise Play*. I remember that while the old, familiar story of the play was unfolding, I was also experiencing at some deeper level of my consciousness a spontaneous stream of new thoughts and feelings. I could sense the presence of the children in the audience and feel their enchantment at this magical event. At the same time, I felt that the special charm of this play had the capacity to set the self-conscious adult free from such habitual attitudes as pretended piety and false humility.

I thought to myself, the purpose of this play is not to make converts, but to present a picture of the true mythic depths of man's common spirituality in familiar images, and to do so in a way that leaves the individual psychologically free to respond out of his own inner nature. True, the imagery of *The Paradise Play* and that of *The Shepherds' Play* is more specifically Christian, but I could not help but feel that any Hindu or Buddhist or Muslim, sufficiently mature in his own spirituality, would nevertheless be able to appreciate the mythic dimension of this play without feeling any proselytizing pressure.

For instance, *The Paradise Play* begins with a procession of all the players walking and singing around the hall, in effect circling the audience.



This is a gesture that says to the audience: What you are about to see and hear is about you, each and every one of you, and all of you together. As the play continued, I became aware of an intimation that in some sense this parade of characters, the Tree-Singer, the Angel Gabriel, God, Adam and Eve, and the Devil, all taken together, are a composite picture of one grand being, the spiritual being of Man himself, which is to say, myself in the complex and mysterious depth of my own mythic and spiritual being.

The Tree-Singer became for me the "Ancient of Days" whose narration of events was

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itself outside of time and prior to the whole drama of the Fall of Man. The tree, of course, is a very ancient symbol for the growth of consciousness, which springs out of the earth and reaches up into the sky. It is usually pictured with a snake coiled around its trunk and with a bird poised upon its topmost branch.

At the level of consciousness represented by the Tree-Singer where the growth of consciousness has reached its pinnacle of completeness, one may indeed be inwardly free enough to pull the Devil's tail in easy good humor. And the Tree-Singer does just that in the play.

However, while one is still caught up in the drama of the struggle for growing consciousness, one necessarily experiences that dynamic tension between God and the Devil. This binds the man to the woman and the woman to the man — as personifications of "will" and "imagination" — into

a single but self-divided being. This being, whose destiny has been to succumb to temptation, is then expelled from the primordial unconscious unity of Paradise into the chaos of this world which is east of Eden. Here, overcoming the trials to be experienced upon the Tree of Good and Evil, it may rise, at last, to the heights of consciousness that are possible on the Tree of Life, and which are personified in the Tree-Singer.

Such is the mythic depth of this play that, by experiencing one's own mythic being in this composite cast of characters, one can experience one's own being before the Fall and feel reassured that, from the very beginning, the possibility for rebirth and resurrection was given along with the Fall. *The Paradise Play* is the play of the Fall and points toward *The Shepherds' Play* as its natural and inevitable sequel. In *The Shepherds' Play* we are definitely in the world. We are lowly and ignorant shepherds haphazardly caught up in the drama that is taking place high above our heads but that yet involves us intimately.

Twixt Ox and Ass

Early in *The Shepherds' Play*, Mary asks Joseph a very important question: "Why is the world so faithless grown?"

This is a question that seems not so much concerned with asking, "Why has the world evolved toward that pervasive lack of faith which is characteristic of our own day and age and which makes life so difficult?" but rather

with asking, "Why is it the nature of the world per se that, once we are in it, we tend to lose our faith so quickly and easily?" This question is not a question about history. It is a question about the present moment, about our present conscious experience of being alive in the world, and it is therefore a timeless question, which could be rephrased: "Why is it the case that the world, by its very nature, seems to rob us of our faith?"

There is a mystery here, a mystery about what it means to be a human being alive on the earth between birth and death, alive in the world. In *The Shepherds' Play* — a medieval mystery play that has come down to us *not* as something preserved by ecclesiastical authority, but as a legacy of a pristine folk tradition — the mystery is rendered in images which tell of the birth of Christ, that is, in images specific to the culture out of which that tradition arose. The mystery itself, however, is not specific to any culture or tradition: it is specific to Man, to mankind.

To approach this play with any kind of parochial attitude would be to miss the point — for both the Christian and the non-Christian alike. For the mystery is about, as the angel says, "that Holy Thing which shall be born of thee . . ."

What Holy Thing is this? It is nothing other than that love which is able "to enter the hearts of all the earth." In other words, that love which can only enter the world via the human heart, and without which the world must needs remain "faithless grown."



If you are a Christian, you celebrate the birth of Christ, which is to say, you give this mystery a name and a place in a certain religious tradition. But that Holy Thing — if it is to be born at all — can be born "only of thee" — of you as a human being, be you Christian or not.

The play is called *The Shepherds' Play* for good reason. The play revolves around the shepherds coming together and each one asking in one way or another, in his turn, "What? Am I not first? I thought so to be." This is how it is with us human beings. To begin with, each thinks of himself first. This is our starting point with the mystery.

Like these shepherds, we human beings seem to awaken on a cold, dark night and are barely able to recall the messages that some angel has given us in our dream. We stumble about and converse with one another, trying to piece together our similar but separate dreams. And, by the by, "leaving our flocks afield," we do eventually find our way "to the stable, the manger . . .," by following the brightest light in the sky. But in response to our knocking at the entrance, we hear this immediate answer:

*With searching look and eager mind,
Say, friends, what seek you here to find?*

Indeed, what have we come here, to the earth, to find? What else, but that Holy Thing which can only "be born of thee," of you and me? But where shall we find it, and how? Under what conditions?

*No featherbed hast Thou this day,
Thou must lie in rough straw and hay.
Thou wast not born in summer's time,
But in bitter winter's time.
And for Thy lily and Thy rose
Seest thou nought but frost and snow.*

The birth of that Holy Thing, which is born of thee, happens in the darkest night of the soul, in winter's time, when we are all encrusted with frost and snow. But *where* is this Holy Thing to be born?

*Eh, lads how is't befallen thus,
That He is born where none could guess,
In such poor place to see the light of day,
Who shall the whole world rule and sway?*

Here, at just this point in the play, the anonymous author rightly brings in the message of King David, who was also a shepherd and who, as we are reminded, "Goliath, the dread giant, he did smite." The world, that is, that which exists without this Holy Thing that is born of thee, is this dread giant. And it is only this small wonderchild who can bring down this dread giant, who can overcome the world.

This is a priceless and delicate discovery that the shepherds have made, that twixt the ox and the ass, in a stable, in a manger where none could guess, in the shabby human breast that Holy Thing is born. But, who can believe such a thing?

*But when we to our fellow tell
Of things that here to us befell,
They'll not believe what we report,*

*But will of us make mock and sport,
In such strange fashion is this come about,
The wisest head may thereon doubt.*

The mystery in *The Shepherds' Play*, a specifically human mystery, is a timeless story that can be told over and over again, in many ways. But the form it takes in this traditional play has its own special charm, one which we can only hope will not get lost as we rush around on the information superhighway. Its timeless quality speaks to the sense of wonder in every small child; the unspoiled character of its folk tradition speaks to the adolescent's deep longing for authority in a chaotic world; and its mythic imagination speaks to the free adult spirit. To all ages, it speaks the same profound truth of the mystery of human existence.

It is a mystery at once so delicate that we are ever in danger of losing it and yet so diamond-like that we could easily crack our skulls on it. As we are told, even "The wisest head may thereon doubt."

And if, having heard our report, some friend should happen by and ask, "Is it far to go?" there is but one answer we could give: "Till thou comest there!"

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*Hermann Hesse, "Our Age is Yearning for a Philosophy of Life," in *My Belief: Essays on Life and Art* (New York: Farrar, Straus and Giroux, 1975), 137.

Waldorf Tuition: Gift or Investment or Something In-between?

by George Eastman

Strong gusts of wind drive sheets of rain against the rhythmically moving windshield wipers as

Brenda and I drive from Cambridge to Lexington. We are going to an open meeting at the Lexington Waldorf School to discuss school finances. The meeting is to be chaired by the president of the Board, and in attendance to answer questions will be the school's Finance Committee. Siegfried Finser is a guest and will open the meeting with some thoughts on Waldorf financing. Brenda is the full-time director of development at the school, and I am a parent of a third-grade boy and a kindergarten girl. My wife is at home, tending to the important bedtime hour. We take turns going to meetings, and this one seemed more in my domain of interest.

Eventually thirty-five persons are assembled in the eurythmy room. In a handout entitled "Finance Committee and the Forming of the Budget," the sources of revenue and the expenditures are described. Special effort is made to clarify how the anticipated addition of a ninth grade in the fall will affect the budget and tuition costs. The handout asks, "How can parents help the school's financial picture?" and suggests that parents need to inform themselves about the

school's finances, pay tuition in a timely fashion, and contribute to the Annual Giving Campaign. The inevitable budgetary pie charts show that for 1995-96, tuition and fees account for 96 percent of the revenue, and that of the expenses, 51 percent is for faculty, 18 percent for tuition-waiver and assistance, and 20 percent for general and administrative purposes.

Siegfried Finser opens the meeting with a story. He is a veteran Waldorf teacher with much experience in school start-ups and financing, but also with much experience in the corporate world. Suppose, Siegfried proposes, we go into a furniture store to buy a sofa. We take our time examining the selection, and as we perhaps sit down on a sofa to test it, a salesman says, "Comfortable, isn't it?" This is the start of a process of selling and buying. You, the buyer, probably have some idea of what you want to spend. Because you want the sofa, you bargain with the salesman and eventually agree to a figure.

Siegfried's story then takes an unexpected turn. After you have paid and are leaving, the salesman runs after you and exclaims, "I was impressed with you and our transaction. May I borrow two thousand dollars from you for a project which is likely to yield large profits in a

short time?" Siegfried notes that most of us would be surprised and probably put off by such a request. It would seem inappropriate and would probably be dismissed at once. However, someone might be willing to listen, and this would probably lead to asking the salesman personal questions concerning his education, training, competence to pursue the project in question, his place of residence, marital status, and so on.

Siegfried does not make explicit the moral of his story. To me he is suggesting the different ways that we can relate to money. In purchasing something, we have a right to purchase only what we truly

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desire. It would be a paradox in North American culture if we went into a furniture store and were told that we *must* purchase a particular sofa. Purchasing something should be a voluntary act, both with regard to choice of object and to price. A different relationship, however, is involved in borrowing or lending money. In this case, we, if we are the lender, or the bank — which is more likely the case — have a right to check out the borrower to safeguard our loan. We will want evidence the person is capable of paying back the loan, and we will want the loan backed up by collateral.

Having presented his story, Siegfried raises the question, "What type of money transaction is paying Waldorf tuition?"

My mind scans the possibilities. "Am I purchasing something?" I ask myself, and respond, "Well, yes, to some extent." And I ask myself further, "Am I giving a loan?" "No," I answer right away, because my tuition is a payment for something, and I expect to get that "something" in return, rather than money back with interest.

At last, Siegfried reveals the point of his story. Waldorf tuition, he asserts, is a gift. It is a gift that we give to the school to support the teachers to whom we entrust our children. "Waldorf schools," Siegfried exclaims, "are buoyed up by gifts."

Initially, I am carried away by the graciousness of the idea of gift-giving and by the warmth and conviction of Siegfried's manner. But very quickly I begin to feel uncomfortable. "Wait a minute," I say

to myself. "It is true I have entrusted my children to Waldorf teachers, but the tuition is not a gift. I do give gifts to the school, in the form of monetary gifts to the Annual Fund Drive, in the form of pro bono professional hours spent training mediation teams for the school, being a member of the Parent Council, and in other ways. These are gifts because there are no strings attached. To me, the primary feature of a gift is that it is given as free as possible of any expectation of return. Given what we are as humans — self-oriented beings driven by a host of conscious and unconscious needs — we probably seldom give a gift in this ideal sense. Pure altruistic giving is no more likely than pure altruism. Nevertheless, I feel the highest gift I can give is one free of any expectation of return."

If we see our tuition as an investment, and we see ourselves as active, rather than passive, investors . . . then we take on the responsibility to ensure that our investment yields the results we seek.

As I run these ideas through my mind it becomes clear that the tuition I pay is an investment. However, I make this investment not in the hard-nosed, self-protective way that I might purchase stocks or bonds or property. My Waldorf tuition is an investment made in goodwill, with a lot of trust, and with a certain spirit of

giving.

At this point I share my thoughts with the group, pointing out that I see the tuition I pay as an investment and not as a gift. The investment, I point out, is in the future of my children and, by extension, in the future of the world. As an investor, I am concerned with how my money is used to achieve certain purposes I have in mind. Whereas one can give a gift with no other motive than to express love and caring, in making an investment one always has an explicit objective.

The discussion then turns to the topic of the projected ninth grade, which dominates the rest of the meeting. Except for two speakers who support the idea of tuition as investment, no one discusses further the distinction between gift and investment.

I feel compelled to write on this distinction, however, because it raises some of the most fundamental questions regarding the governance of Waldorf schools and the role of parents in the decision-making process.

To whom are Waldorf faculty responsible? Are they responsible to the parents who provide, in the case of the Lexington Waldorf School, 96 percent of the revenues? And what does it mean to be "responsible?" Parents sign a contract with the school each year. In the current year at the Lexington Waldorf School each parent is even assigned a "Customer Number." The contract consists entirely of an itemization of the tuition and fees, with totals and with payment terms. In legal terms, it is a

poor contract at best in that it does not spell out the conditions that *both* parties are to meet or the safeguards both parties have against default. So although the word "contract" is used, it appears to be a euphemism for "bill" or "bill of sale." It states simply what I, the parent-"customer," owe the school and states nothing about what the school is giving in return.

We are entering murky and difficult waters here. Historically, teaching contracts have differed from commercial or fiduciary contracts. At the college level, where I have taught for over thirty years, a teaching contract spells out the number of teaching hours and of weekly office hours, the minimum number of student advisees, as well as committee assignments and other special services to the institution. It specifies the length of the contract and the conditions for renewal and for abrogation. It may even explicitly note the type and extent of scholarly contributions expected. The contract also states that the institution in return agrees to reimburse the teacher a per annum amount in specified installments. Usually accompanying the contract is a faculty handbook that spells out in more detail all of these conditions, plus what behaviors on the part of the teacher would release the institution from its contractual obligations.

The danger — the downside — of thinking of Waldorf teaching as a gift is that it implies an unrealistic and, in my judgment, an undesirable *carte blanche* given to Waldorf teachers. "Here," it may imply,

"you take my child and do what, in your Anthroposophic wisdom, you think is best for him. I give you this salary with no expectations and with total trust."

Certainly there needs to be trust, for trust is at the very heart of any voluntary organization, particularly one to which we entrust our precious children. But the fact is that our tuition is an investment of a most complex kind. For me, I am investing first of all in a philosophy and practice of education that embraces the whole child — his body, heart, and soul, as well as his mind. Second, I am investing in maintaining and strengthening a community of parents, teachers, and staff — a community dedicated to a vision of human life and of the world that I can personally support. Third, I am investing in a special type of education that provides a corrective to the reductionism, the escapism, the "virtual" reality that progressively pervades North American society and the industrialized East and West. Fourth, I am investing not only in my children's future, but in the future of generations yet unborn who will have an opportunity to attend the Lexington Waldorf School. And fifth, I am investing in maintaining a physical school, a building with desks, chairs, books, and supplies, a physical school that is attractive and functional and is an expression of Anthroposophy.

If we see our tuition as an investment, and we see ourselves as active, rather than passive, investors — which some Waldorf parents may choose to be — then we take

on the responsibility to ensure that our investment yields the results we seek. This means that we, as parents, need to be as clear as possible about what we seek for our children. We need to understand the Anthroposophical worldview that undergirds Waldorf Education. We need to understand our own motives, our own inner needs that are being met through our children. We need to become involved in the life of the school in whatever way we can, to tune into its pulse, to respond to the ebb and flow of energy. It is no coincidence that many Waldorf teachers begin as parents of Waldorf children and through their children come to appreciate the important way of being that Waldorf Education offers.

By the time the meeting at the school ends, the wind and rain have ceased. A calm, slightly foggy New England night makes one look forward to the warmth of hearth and of quiet time for thought. Driving home, I realize that the tuition I pay is somewhere between an investment and a gift. It is at a balancing point on the continuum between my right to expect accountability from the faculty and to have my expectations met, and their right to be trusted to make sound decisions in all of the domains affecting my child's developing mind, heart, and soul. It is perhaps our greatest responsibility as Waldorf parents to find where we stand on that continuum and then to act energetically and in good faith to have our expectations met.

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Discovering a New Community: A Waldorf Alumnus in Latin America

by David Sciarretta

In August 1993 I set foot on Mexico's Yucatan Peninsula for the second time in my life. My introduction to this arid, limestone slab, where colonial legacy meets the ruins of a once-mighty Mayan culture, had come four years earlier on my Green Meadow Waldorf School senior class trip. This second encounter, occurring under very different circumstances, marked the beginning of a twelve-month fellowship journey that would take me from Mexico over the tiny chain of tortured nations known as Central America and back again. I wrestled with fear, doubt, and loneliness on the path of discovery and self-knowledge. The capacity for independent thought and action and the flexibility to adapt to the constantly shifting kaleidoscope of situations life offers — qualities developed through my Waldorf education — became my most cherished travel companions through a year of struggle and transformation.

David Sciarretta is a graduate of the Green Meadow Waldorf School in Spring Valley, New York. He is currently a teacher at the Harriet Tubman Village School in San Diego, California.

Cual es tu profesion? What is your profession? This was the most common question put to me after the ones concerning my name, hometown, and the job prospects for Latinos in the United States. My answer was: *Soy estudiante*. And when pressed, I replied: *Soy estudiante de la vida*. I am a student of life.



My answer was a truthful one. I had spent fourteen years exploring my world from an independent Waldorf perspective, through the study of foreign languages, music, eurythmy, and the arts, and through the traditional academic subjects as well. The fact that by my high school graduation I had, in addition to completing the usual term papers, science experiments, and math problems, also knitted a scarf, shaped a darning egg from a

rough hunk of maple, patterned and sewed a shirt, and performed in countless musical and theatrical presentations prepared me well for the myriad challenges of my fellowship year. My exposure to foreign languages and musical training proved invaluable in absorbing not only the grammatical structure of Spanish but also the subtleties of accent and gesture which give life to a language. And although it was not until my college years that I even heard of multicultural education, I plunged into unfamiliar cultures, exulting in their similarities to my own while respecting the differences that color human experience.

Entering the dark, hieroglyph-covered tombs of the mysteriously disappeared Mayan culture, I was transported back to main lessons spent exploring the dreams of pharaohs and the toils of slaves in ancient Egypt. As I descended precariously through Guatemala's numerous climatic zones in an overcrowded 1970's American school bus — passing from the twisted pines and chilling mists of the highlands to the lush vegetation of the steamy coast — a long-forgotten main lesson book drawing sprang to life: a block crayon depiction of the world's climates found at varying altitudes on the face of a mountain. And living and working



The school construction project, organized by the author, on a coffee plantation in Flores, Guatemala

alongside the Latin American poor evoked memories of lessons devoted to an all-but-forgotten time when our lives were a struggle for survival, bound to the rhythms of the natural world.

There were many practical applications of my Waldorf education. In addition, the ability to think, feel, and act in an independent manner — nurtured by my schooling — awakened within me at the most crucial junctures and allowed me to address the emotional and spiritual aspects of my undertaking. Two of the inward challenges I faced remain particularly vivid in my memory. The first took place on the site of a development project organized on the Pacific coast of Guatemala. Utilizing volunteer labor from the community of impoverished plantation laborers, we had begun the construction of two desperately needed school-

rooms. Despite the difficulty of working in a country where something as simple as the delivery of a truckload of sand may take weeks if one does not have the right political connections, I worked with the community, digging the foundation, mixing cement, and raising the walls block by block. Then came the devastating rumor: Norteamericanos were kidnaping Guatemalan children and selling their organs in the United States. Widespread hysteria followed, along with attacks on foreigners in Guatemala, some of them alarming in their severity.

Although I had heard the rumor, I was unprepared for what occurred as I arrived on the work site, sweat-soaked from the jungle hike. Upon seeing me, barefoot children, until then intent upon their play, shrank from me in fear. The project codirector, a Guatemalan teacher, sadly

informed me that the community suspected me of child smuggling, and that the children had been warned to stay clear of the gringo in their midst. For my personal safety, the teacher urged me to "take a break" from the project and leave the area.

My first reaction was one of outrage. I struggled to refrain myself from running from shack to shack in the village, confronting the adults who had spread the false rumor and proving them wrong. Any Green Meadow graduate unlucky enough to have witnessed one of my infamous temper tantrums during my student days would have no difficulty imagining this scene and feeling pity for those at whom my tirade would have been directed. But, as I left the scene, blinding rage gave way first to a feeling of betrayal, then frustration, and finally to sadness — the emotion I still feel every

time I think of the incident. How could people, adults, be so ignorant? Couldn't they see that what I was doing could only be positive for the future of the community? Wasn't this a typical case of their biting the hand that feeds them? As I struggled to deal with the emotional shock, I surprised myself. I was able to resist the temptation of falling back upon the stereotypes of the Third World that we often use to justify a situation we do not fully comprehend. For example, we think, "These people are simply not as sophisticated, perhaps not even as intelligent as we are, and consequently are unable to plan for the future with their own best interests in mind."

By forcing aside conventional thoughts, I gradually eased the inward bitterness and anger I felt regarding the incident. I approached it from another point of view, experiencing the villagers' isolation — arising from ruthless exploitation and marginalization — and the increasing uncertainty of their future.

The second crucial occasion came on a stifling July evening in San Salvador. En route to Guatemala three friends and I were mistaken for common criminals and arrested when we stumbled into a citywide police "cleanup" operation. We rode for an hour in the back of a cattle truck. Images of every film I had ever seen and book I had read about police brutality in El Salvador flashed through my head. What followed were hours of anxious waiting broken by our attempts to convince the police captain of our innocence. I somehow found

an inner calm as the night wore on, overcoming my panic and anger as police officers, who were unable to distinguish one country's visa from another's in my passport, repeatedly told me that I lacked a visa for El Salvador. I suspect they were illiterate.

When we finally walked free into the foul-smelling city, which felt more humid at 2:00 A.M. than it had at midday, I wrestled with intense feelings of anger, even hate, and a desire for revenge. Later, as with the Guatemalan incident, I was able to justify and understand what had happened by approaching it from a different angle, that of the human experience of a policeman trapped in a system that glorifies might over right.

The wooden welcoming sign at the Green Meadow Waldorf School reads "Education Towards Freedom." These words were, and probably still are, the butt of numerous jokes by restless students, eager to reach beyond the narrow confines of the tiny campus and its intimate atmosphere. My fellowship year allowed me this journey outwards to an unknown end. Reflecting now on my experiences, I am thankful for the gifts I have received from my Waldorf education, and for the capacity for independent thought, feeling, and action that came forth at critical moments. I am left with the most precious heritage of my Waldorf experience: an opportunity to be a true *estudiante de la vida*.



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Waldorf Education in Romania

by Natalie Reed Adams

Since August 1994, my family and I have been living in Bucharest, Romania. My husband is a foreign service officer in the U.S. State Department working in the economic section of the American Embassy. In 1992 I read with interest the issue of *Renewal* that featured articles about Waldorf Education in the former East Bloc, and I noted the piece by Aurea Barnes on Romania. At the time, our children were enrolled at the Washington Waldorf School, and I was teaching part-time there. Once my husband and I knew that Waldorf Education was developing in Romania, that became one of the reasons he lobbied to be assigned there. When we arrived in Bucharest, we decided, after much discussion, to put our children in Waldorf classes rather than in the American School — the preferred school within the international community. Jay, our son, entered a second grade, and Sasha, our daughter, a kindergarten class in September 1994.

The experience of my son's class has given us an inkling of the difficulties that face the teachers and parents of Waldorf children in this country. We enrolled Jay in the single Waldorf class in State School Number 10, a gray, U-shaped building surrounded by cracked

blacktop. It stood in one of the nicer residential areas, and a few trees around the school softened its institutional heaviness. The year before, having at the last minute been denied the classroom that they had been promised in another school, the parents found the director of State School Number 10 willing to accept their class on the condition that they fix up the classroom that he had to offer. The room previously had been a mechanic's workshop. The parents spent a week clearing out and thoroughly cleaning the room. They painted the walls pink, made and hung curtains, and, with money from the Center for Waldorf Pedagogy in Romania, bought attractive desks and chairs for the children. The classroom stood out from the other classrooms and the halls, which were painted institutional dark and light browns. The director, a gruff, charmless man, complimented the parents on their hard work. The children and their class teacher felt at home in the classroom, and the first year went well.

Shortly before the beginning of the second year, the class teacher went to the school to prepare the classroom. She found the door to the classroom locked and the desks and chairs piled in an upstairs hall. The director told her that a partition would be

built to create a classroom for her there in the hall, this despite the fact that the desks were so wide that no one could have passed from the front to the back of the partitioned space without moving desks. He said that he needed her first-grade classroom for another, larger class.

Interestingly, no one to whom I talked believed his explanation. There was speculation that he had not been sufficiently "tipped" the previous year. The parents had given him a telephone, which a parent who worked for the phone company had installed for him in his home, but perhaps that had not been enough. Another theory was that he had employed a familiar Balkan trick:

Natalie Adams is a graduate of Harvard University, where she studied philosophy. She did the Anthroposophical Foundation Year at Emerson College in England and the Waldorf teacher training in Stuttgart, Germany. She was a class teacher at the Rudolf Steiner School of New York and also taught at the Washington Waldorf School. Natalie Adams is now living in Romania, where her husband is in the foreign service. She is the English teacher for Waldorf classes in State School Number 28 in Bucharest.

rent your property to someone who will renovate it and then, once the renovation is complete, break whatever contract you have and take it back. As an outsider I found the director's high-handed treatment of the parents and their speculation as to his motivation puzzling and shocking.

For a week after the start of school the class migrated from one unusable space to another, and the parents negotiated fruitlessly with the director. During this time the Waldorf Federation of Teachers (a fledgling national association analogous to AWSNA), with the help of a well-connected friend, was able to obtain a letter from the Ministry of Education. The director was forced to return the classroom to our son's second grade. By that time, however, dilapidated desks with attached folding chairs had been nailed to the floor and a non-Waldorf fifth grade had been given the classroom for the afternoon session.

A year of hostility followed in which the director ignored or rudely treated our son's teacher. Sharing the classroom meant that objects from the nature table and potted plants from the windowsill were often discovered on the floor in the morning. Also, during the winter months the class had to end before eleven o'clock in order that the fifth grade could begin at this time. The blackboard, which was useless for drawing, was replaced only in the spring, and small repairs lay unattended. Traditional teachers felt that they should not be seen talking to the Waldorf class teacher. At the end of the class's second-grade year, the

director bluntly told the class teacher and me (I had volunteered as the English and German teacher) that he did not want the class back the next year. After a long period of uncertainty, the class was able to find a space in a school which already had three other Waldorf classes. We moved at the end of the summer, fixing up the new classroom for the third grade.

These incidents reveal much about current social conditions in Romania. Those having

Waldorf teachers in Romania work without many of the basic materials that we take for granted: decent painting paper and watercolor paints, proper chalk and blackboards, good quality crayons, and wooden recorders.

power, whether small or great, exercise a petty despotism. The incidents also indicate the difficulties facing the Waldorf movement here: the lack of money for basic school materials and the stress that Waldorf teachers experience by being embedded in the state school system.

How did this come about? Immediately after Romania's revolution in December 1989, in which the most oppressive communist dictator in Eastern Europe was executed, a spirit of

euphoric openness captivated many Romanian people. Romanians now talk of that time as an exhilarating period of promise. The post-revolutionary government appointed a new Minister of Education, a man of ideals and vision. When he was approached by Romanians who had lived in Germany and who had a background in Anthroposophy and Waldorf Education, the Minister responded positively. Because of his backing of Waldorf Education, the Ministry agreed to incorporate Waldorf classes within the state school system. The Ministry also agreed to support a certain number of students each year at a Waldorf teachers seminar. This gave Waldorf Education a real chance to develop and, many hoped, to influence the direction of change in the country. Traditional Romanian education had been modeled on the rigid French system and had been "reformed" under communism to even further discourage practical work and imaginative, individual thinking. The system needed to be dramatically transformed, and the hope and the possibility existed that Waldorf Education could participate in the transformation. With post-revolutionary optimism, a marriage was made between Waldorf Education and the state school system.

The Minister of Education was subsequently replaced, however, and voices of opposition arose within the Ministry. The general process of reform slowed and, regarding some aspects of education, reversed direction. Pressure to hold onto what was viewed as the specifically Romanian traditional

education began to be felt. Pride in the existing system's rigor and high standards, believed to be guaranteed by difficult tests demanding much memorization, showed itself often within the educational bureaucracy. A number of inspectors and school directors, still in place from the communist era, stood ready to resist what they viewed as a foreign invasion. By that time, however, Waldorf Education was guaranteed by new laws.

The Center for Waldorf Pedagogy, the central organization promoting Waldorf Education in Romania, continues to wrestle with the Ministry of Education and the local inspectors for classroom space and for an agreement on educational standards. Such an

would be subject to.

Many things are still in flux, and the Center must involve itself if the freedom necessary for the existence of Waldorf Education is to be given. This takes up a great deal of the time and energy of the leaders of the Center. The Center also directs the teacher training course. This year a small second year has been added in what will be a three-year program. The Center is working to get the course accredited so that graduates lacking a teaching certificate can be certified. The Center is also responsible for visiting and advising the classes throughout Romania and for leading the teachers conferences — one in the summer and one usually after Christmas — which provide

Anthroposophy, worlds open up. But no Waldorf training is complete after one year, yet many leave the course at that point to take on a Waldorf class. Except for a foreign language specialist, the class teacher usually is his or her class's only teacher, covering the music, handwork, sports, and one foreign language, as well as the main lesson.

Waldorf teachers in Romania work without many of the basic materials that we take for granted: decent painting paper and watercolor paints, proper chalk and blackboards, good quality crayons, and wooden recorders. The classroom space can be ugly, in winter unheated, and the school surroundings depressing. In one fourth-grade classroom where I



teach English, the temperature held steady at just under fifty degrees for weeks. In the same school the water is often turned off.

The class teachers also individually shoulder the burden of working with the

agreement would stipulate what tests would be required of Waldorf pupils and at what age; what curriculum the Waldorf schools would commit to (they must by law commit to some written curriculum); and the kind of inspections they

continuing education to practicing teachers.

Anyone who has done a Waldorf teacher training knows what an extraordinary and enriching experience it is. For some Romanian students, with no previous knowledge of

parents who have many doubts and questions. The teachers have to put up with petty harassment from school directors or do more aggressive battle with inspectors who decide to move them into less desirable neighborhoods on short notice.

They do all of this, of course, on the meager salary — approximately sixty dollars per month — that is the lot of most Romanians. Financial stress affects both teachers and parents since, with a thirty percent annual inflation rate, the purchasing power of most Romanians is declining. Time and again, I have been impressed with the strength of character of the teachers in the face of such conditions.

Experience is proving that Waldorf teachers in Romania need to come together into groups, to form collegia, especially if their classes are not under the same roof. They need emotional support to weather difficult situations. They also need artistic activities and pedagogical study to keep their teaching fresh, and they need organization to face the challenges that come from the outside. However, working together as equals is an unpracticed skill in Romania. As in many former communist countries, individual initiative needs encouragement, and the tempering abilities to listen and to be open to the ideas of others need to be developed. Democratic decision-making and acting by consensus are little known. During the communist era teachers were forced into very passive roles, listening, in teachers meetings, while the school director held forth. I have witnessed the beginnings of a healthy working together in two teachers groups in Bucharest and believe that something similar is happening in other groups. In the major cities of Iasi, Brasov, Cluj, and Timisoara, among others, collegia have formed and have

even managed to bring together their Waldorf classes in wings or sections of state schools. Some collegia have begun plans to build their own purely Waldorf schools, although the financial support that they might receive from western Europe will not be sufficient to realize these dreams. The situation in Bucharest is more complicated. Bucharest is a significantly larger city, and several different groups have formed.

One can ask the question. Are these difficulties particular to the Waldorf movement or are other sectors of Romanian society suffering from similar problems? From many conversations with Romanians and non-Romanians, it has become clear to me that any endeavor here is likely to encounter immense difficulties. The United States commercial attaché told me that the first two concerns of his office were the development of "transparency" (meaning that rules and regulations are clear and accessible) and the rooting out of corruption. Little is accomplished here without giving a substantial gift. Bureaucratic requests for yet another document are like the mythological Hydra, which grew two new heads when one was cut off, and a gift or bribe is often the only Herculean weapon capable of slaying the beast. Despite the diplomatic clout of the American School in Bucharest, Board members spent months in fruitless negotiations trying to acquire one or two rooms into which they hoped to expand.

What, then, is the justification for fighting so hard for

Waldorf Education when frustration and compromise seem of necessity to be woven into its progress? One senses that if Romania is to become truly part of Europe — where Romanians feel they culturally belong — things must change. As one woman, who is trying to establish a business producing and selling handwoven carpets, said to me, "If we can just survive the next five years, maybe we can make something successful when the right laws are in place." In the educational sphere, Waldorf Education must be a strong presence now if, through the influence of those fostering it, good laws are to be in place in the future

Waldorf Education has the task of rooting the children in the particular spirit of their country, not only of connecting them with the universal spirit of the time.

Under all the numbingly tragic history of this country is a rich and deep folk spirit that needs to be freed from the retarding forces of Romania's past. The great beauty of the countryside and the variety and spiritual quality of the landscape strike one deeply as one travels into the rural areas. Ironically, because Romania has been held back at various times in its development by repressive regimes — the Turks until the last quarter of the nineteenth century and the

communists until 1989 — it has also preserved certain older qualities that have disappeared in the West. In rural villages peasant life has changed little in hundreds of years, and even in Bucharest most residents are only a generation or two removed from their ancestral villages. There is a rich literature from this and the last century, ranging from nature stories to delicate, humorous social parody. This literature is hardly known outside Romania. From even earlier times, Romania has a heritage of fairy tales and myths that also remain largely untranslated. And, of course, there are the beautiful churches and monasteries throughout the country and the deeply mystical tradition of the Orthodox church that stands behind them. One can develop a deep respect for something there that is hidden by the difficulties of daily life.

The European Union and the United States are making their presence felt in Romania. Most of their influence is directed toward introducing a free market economy to Romania and to bringing some rationality into its legal system. The cultural effects, however, of the expanding Western influence is viewed by most Westerners as purely positive.

Within the Waldorf movement lies the possibility of reaching deeper into the folk spirit. Waldorf Education has the task of rooting the children in the particular spirit of their country, not only of connecting them with the universal spirit of the time. For the Waldorf movement in Romania, as in many countries, the question is to find, to know, and to

strengthen this particular spirit. In order for this endeavor to have a chance, Waldorf Education in Romania needs support both from within and from outside the country.

In involving ourselves with the Waldorf movement in Romania, my husband, children, and I have, for part of our lives, sailed off the protected island of the international community and landed on the problem-riddled mainland of Romanian society. Our experience has had its painful sides, but we are grateful for its enriching us. The children have gained immeasurably by their friendships with the children here. They have stayed with friends in rural villages, drunk sweet water from country wells, and eaten farmyard chickens. They have pressed grapes to make family table wine. They have learned wonderful Romanian Christmas carols and poetry and heard Romanian folk tales. They have learned the language far better than their parents have. Jay and Sasha will return to their classes in the Washington Waldorf School with a broader sense of life's possibilities.



Note: There are at present in Romania one hundred ten Waldorf elementary classes and about fifty kindergarten classes in twenty-three different towns and villages. Most of the classes are conducted in Romanian, but in towns with a significant Hungarian-speaking population, teachers attempt to offer parallel Romanian and Hungarian classes. In Transylvania, some of the classes are held in Hungarian.

Erica von Baravalle née Smith: A Unique Teacher of English

by Rex Raab

Erica Violet Smith was born on December 18, 1900, in Rawalpindi in what was then British India. She was the daughter of an officer in the Indian Army, and her family came from Ireland. Erica spent a happy childhood in palatial circumstances surrounded by much-loved Indian servants. Before the First World War the Smiths moved, after a time in Hong Kong, to England, where the father soon died. Erica had to leave her girls' boarding school and to live very modestly with her mother in Douglas on the Isle of Man. There she found work in a little factory.

In 1918 Erica was discovered by Reginald and Claire Raab, who were immediately struck by her lively nature. The couple made arrangements for her to join them and their children, Betty and Rex, in their temporary household in Peel on the other side of the island. Later, Erica traveled with the family to London and was given an opportunity to create a career and life for herself. Whilst she was with the family no day would pass that was not enlivened by her inexhaustible humor, by her always new "song of the day." She had the Irish love of poetry in unusual measure, and this love, which helped to overcome her home-

sickness for India, was to become one of the secrets of her success as a teacher.

In 1920 Erica chose the teaching profession. As a student teacher in North London, she soon made the acquaintance of the pioneers of Waldorf Education in Great Britain. These pioneers were to found the New School — later to be called Michael Hall — in 1925



Teacher Erica von Baravalle with her class in Stuttgart, July 1935

in the south of London as the country's first Waldorf school. Thus it came about that Erica Smith attended the Anthroposophical summer conference in Torquay in 1924 and heard Rudolf Steiner's lectures on education, both there and subsequently in London.

Questions dormant in her were awakened, and Erica's lively and enthusiastic nature was noticed on all sides. Her alertness alone preserved for posterity an episode at Torquay of importance to every educator. It has never been related in print before.

One afternoon that summer Rudolf Steiner was to give a lecture especially for teachers. He gave his listeners to understand that he had something important to say before continuing with his talks. Everyone held their notebooks at the ready. Dr. Steiner then proceeded to unwrap a piece of chalk — as if he were about to illustrate his words on the blackboard. He held the shreds of paper in his hand whilst looking around for a wastepaper basket. (Perhaps he knew already that there wasn't one in the room.)

One of his listeners then said — whilst the others put their notebooks aside — "Dr. Steiner, please put the shreds of paper in the corner of the room, and we will clear them up afterwards." But Rudolf Steiner had a wastepaper basket fetched and then ostentatiously dropped the shreds of paper into the basket.

He then continued:

What I wanted to say is this: You may have ever so much knowledge.

But if you deposit the shreds of paper from the chalk on the floor and not in the wastepaper basket, then all your vaunted knowledge has no value whatsoever!

I do not know how many of the other participants took note of this incident. For Erica, Dr. Steiner's point became a mainstay of her teaching activities. Order and cleanliness, not only externally in the classroom but in her inner soul life, were an integral part of her work as a teacher. I visited her class many times over the years. No lesson could begin before the classroom was neat and tidy, spick and span. And she would accept no notebook before its contents had been written out neatly. Today this attitude and practice is — unfortunately, I believe — not so common.

Also decisive for Erica was a private interview with Rudolf Steiner in Dr. Larkin's house in Harley Street in London. Dr. Steiner insisted on conducting it in English, having the translator, George Adams, wait outside the door in case help was needed. This interview must have been a unique experience even for Rudolf Steiner. When he invited Erica to visit the Waldorf School in Stuttgart and said he intended to ask Dr. Hermann von Baravalle, the mathematician, to accompany her, Erica's elation got the better of her — she lifted Rudolf Steiner from the floor! Small wonder that he referred to her as an "elemental upheaval" (*Naturereignis*).

Dr. Steiner went on to encourage Erica to become a member of the Anthroposophical Society and The School of Spiritual Science. When at first

her sense of independence caused her to raise objections, he simply repeated the question, "We join?" Dr. Steiner signed her pink and her blue cards for membership, wrote out a personal meditation for her in English, and handed these to her. Erica treasured these things to the end of her life seventy years later.

When Erica mounted the steps of the Waldorf School in Stuttgart at the beginning of September 1924, she was welcomed by Emil and Bertha Molt, the founders of the school, Graf Bothmer, the first physical education teacher there and the creator of Bothmer Gymnastics, and by Rudolf Steiner himself. Dr. Steiner asked Erica if she were satisfied to be there. He was "very dear," she later recalled.

On September 3, Dr. Steiner took Erica into the pedagogical and internal faculty meeting — it was to be his last — saying: "You just listen and look." Rudolf Steiner told the teachers that Dr. von Baravalle had brought a young Englishwoman, Miss Smith, to the school, whereupon von Baravalle protested, asserting that it was Dr. Steiner who had invited her to Stuttgart! Erica recalled of that day, "I was very privileged." She had fallen in love with the school and stayed on, visiting classes.

In April 1925, Erica Smith and Hermann von Baravalle celebrated their marriage in Dornach, Switzerland. At the beginning of the 1925-26 school year, Erica von Baravalle was installed as an English teacher in the Stuttgart Waldorf School. She taught mainly in the lower school, but her

work with the eleventh grade made a lifelong impression on class member Ilse Klink, who was to become a noted eurythmist, and on other students. Her pupils can still remember the poems, tongue twisters, and passages of prose, introduced by "Frau von Baravalle." She was a stickler for correct pronunciation and gave the students an excellent foundation for facility in the English language in later life. Erica felt a strong connection with the elemental beings of nature that play an important role in the exciting Irish and English tales she would tell.

In 1929, when her son Edward was born, she absented

*Rex Raab was born April 7, 1914, his father a Londoner, his mother a New Yorker. He became a licensed architect in London in 1938 and then did artistic studies at the Goetheanum in Dornach, Switzerland. After service in the Friends' Ambulance Unit in World War Two and post-war relief work in Austria, Rex Raab resumed architectural work in 1948. In 1951 he went on invitation to Germany and at age forty opened an architectural firm there. He became a leading architect in the Anthroposophical style, designing schools, churches, homes, and institutional buildings in many countries, including Britain, Germany, Austria, Sweden, Norway, France, and Israel. He worked on the completion of the Goetheanum and its grounds. Rex Raab has also done furniture design and color consultancy. His books include *Eloquent Concrete* and works in German on Waldorf school architecture and on the development of the Goetheanum grounds.*

herself from the school for a while but then resumed her teaching until the end of the 1937 school year. At that time, pressure from the Nazis made it necessary to reduce the staff. In 1938, Dr. von Baravalle visited the United States and decided to emigrate there the following year. The family departure was threatened by the impending outbreak of war. But Erica, never at a loss in a tight situation, took over and managed to get her family party on the last boat bound for New York.

In America, Erica taught first at the High Mowing School in New Hampshire. Then she was at the New York Rudolf Steiner School, and the well-known Dalton School, which also uses "block periods," and later in the public school system. While in her fifties, Erica got her Master of Arts degree from Adelphi College. Her written thesis bore the characteristic title "Moral Values in Education." When she retired at age seventy, she was a school principal

Dr. Steiner's emphasis on moral education and his practical approach to it was one element that had attracted Erica to Waldorf Education. A strong sense of moral values informed her teaching throughout her career. It was one secret of her success as a teacher

In American public schools a teacher is not allowed to discuss religion in the classroom. Although there was nothing moralizing in Erica's nature, she felt that spiritual values should enter into education and not be withheld from children in their formative years. Her creative and poetic nature found an acceptable way of doing this.

On occasion she would bring a beautiful copper bowl to school and place it in front of the class. At an appropriate moment in the lesson she would point out the bowl and say that it could only hold things that cost some sacrifice from the donor. Then Erica would go around with the bowl and ask the students to put something in it. At first they might put in a pencil stump, an eraser, or a stick of chewing gum. Then Erica would tell them that these things did not cost them any real sacrifice, and that there were more precious things which one could not see nor touch.

Then came the moment of revelation — someone would realize what she was driving at. A child would reach into the bowl and say: "Here is some fair play," or "Here is a good turn," or "Here is friendship," or the like. Now no material object went into the bowl, but it began to fill up with the good things of the spirit.

As the gentle game continued, the children thus became conscious of moral values and spiritual qualities, and of their importance. But it was clear to everyone that the bowl was full to overflowing only when the gift of "true love" was made.

Erica's long years of "retirement" were filled with helpful actions toward innumerable friends. In 1991, she went to Japan to live with her son. On December 8, 1994, all but ninety-four years old, Erica died in her son's arms. On that day, as was their wont, Edward and she had gone for a drive in the car and Erica had sung three little songs for him.

It is hard to imagine another human being in whom the qualities of soul and spirit could be so clearly distinguished from one another as in the case of Erica von Baravalle. She was a little lady with a powerful presence, great sheer ego-force, and a melting persuasiveness. When she returned to England after World War Two, her naturalization in the United States had not yet taken effect, and she was disgusted by the identification papers she still had from Nazi Germany. She set her heart on having a valid British passport. Erica marched to Whitehall without a birth certificate or any other valid papers whatsoever and did not leave the passport office until she had procured what she wanted. The event probably was unprecedented. My mother, Claire Raab, who witnessed it, said was it was a tour de force that had to be seen to be believed.

Perhaps we can summarize Erica von Baravalle's life's message to her fellow teachers as follows:

- Love the children and strive to meet their needs.
- Take an interest in the world.
- Create order, cleanliness, and beauty in the classroom.
- Dress neatly.
- Use imagination, humor, and resourcefulness in your teaching.
- Put your whole heart and soul into your work.



Erica's Copper Bowl

I am a beggar for spirit,
a beggar with a bowl,
a bowl of burnished copper,
a chalice of the soul.
The alms I gather in it
are lighter than the air,
no mortal eye can see them,
and they are there to share.
Pray open up your heart, friend,
and make a gift today,
the most precious that you have —
a sacrifice, I pray.
For truth and beauty and goodness
my bowl has endless space,
and sacrifice and duty
both go before in grace.
Yet when the bowl is brimming
with gifts of selflessness,
and it might seem replenished,
with nothing left to bless,
Still come, arrayed in fullness,
outpourings of true love,
to fill to overflowing
my burnished treasure-trove.

Rex Raab
12/29/94 – 1/1/95

This poem was written as a tribute
to Erica von Baravalle

Book Reviews

WALDORF EDUCATION: A Family Guide

edited by Pamela Johnson Fenner and
Karen L. Rivers

Michaelmas Press, Amesbury, Mass., 1995.

Reviewed by Dick Oliver

Most Waldorf schools have a school handbook that presents the school policies and perhaps some practical information that parents need to know. But parents usually have many questions that few school handbooks even begin to address: questions about the curriculum, about celebrations and festivals, about the role of the home and community, and about the philosophy behind Waldorf Education. Teachers often suggest books such as Linda Cusick's *Waldorf Parenting Handbook* and Marjorie Spock's *Teaching as a Lively Art*, among many others. Few parents, however, have the time to read six or ten books to address the variety of questions they have about their child's education.

Waldorf Education: A Family Guide takes a different approach, and the result is a book that already a number of Waldorf schools are handing out along with or even in place of their own handbooks. This collection of sixty-two short, delightfully readable essays and resource lists covers a wide range of topics, from pedagogy and child development to family life and community celebrations. Originally started as a

handbook for the
Marin (California)
Waldorf School,
the guide has
grown to include
contributions
from many
school communities
around the world.
There are articles
by Rudolf Steiner,
by leaders in the
Waldorf commu-
nity today such as

René Querido and Joan Almon, and by teachers and parents. The book recently earned a first-place national award for its beautiful large-format design and production.

Beginning with three brief overviews of Waldorf Education and Rudolf Steiner's life, the guide then offers one essay on each of the twelve grades and the kindergarten. These give parents a glimpse of what to expect, both from their developing child and from the Waldorf curriculum. The next ten articles focus on specific aspects of the curriculum, including literacy, drama, science, handwork, and more general considerations such as rhythm, beauty, and the temperaments.

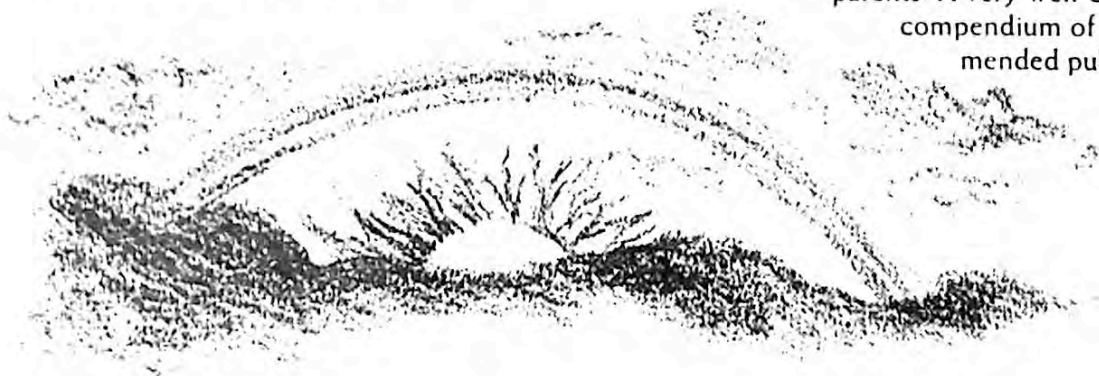
The seven contributions in the "What About...?" section of the book address common parent concerns, including community-building, religion, multiculturalism, and a comparison of the Waldorf and Montessori approaches. Reflections of Waldorf teachers, and a commentary on Waldorf graduates by a non-Waldorf high school teacher are also included. Finally, ten articles on family life and fifteen on seasonal celebrations provide both philosophical viewpoints and practical advice for parents. A very well-chosen compendium of recommended publications

WALDORF

*Waldorf
Education*



DESIGNED BY LINDA CUSICK AND KAREN L. RIVERS



and organizations rounds out the two-hundred-page volume.

Overall, *Waldorf Education: A Family Guide* is probably the most readable and comprehensive resource available for English-speaking Waldorf parents. Still, some of the more "didactic" Anthroposophical articles, including the very first article on social change, are likely to turn off some parents who aren't already familiar with the Waldorf movement. The essays may also give parents the impression that Waldorf schools are much more uniform in their practices and philosophy than they actually are, despite the editor's note stressing that each Waldorf school — and each class within a school — is unique. The more liberal young Waldorf schools and public schools utilizing some Waldorf methods will want to review all the articles carefully before endorsing or adopting the book as representative of their school. More conservative and traditionally oriented schools, on the other hand, may find a few of the essays a bit too loose in their interpretation of the curriculum and philosophy.

Caveats aside, if your children attend a Waldorf school you are certain to find plenty of information and inspiration in this guide that would be difficult to glean from any other single publication. Margaret Fuller Ossoli cautions that, "Children . . . should not through books antedate their actual experiences." But parents, in contrast, can benefit a great deal from reading about Waldorf schooling before they are finished experiencing it. Indeed, parents of Waldorf graduates who pick up *Waldorf Education: A Family Guide* are likely to wish that it had been printed back when their children were in kindergarten.

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Dick Oliver is the editor of "Head, Heart, Hands: A Family Newsletter," a Waldorf-oriented family publication distributed free to 12,000 families by the Green Mountain Waldorf School in Wolcott, Vermont. The author of twelve books on science, mathematics, and computers, Dick is also an enthusiastic Waldorf parent. He has taught classes and given workshops for all ages in Waldorf and other schools.

Two New Books Based on a Goethean Approach to Science

GENETICS AND THE MANIPULATION OF LIFE: The Forgotten Factor of Context

by Craig Holdrege

Lindisfarne Press, Hudson, N.Y., 1996.

THE WHOLENESS OF NATURE: Goethe's Way Toward a Science of Conscious Participation in Nature

by Henri Bortoft

Lindisfarne Press, Hudson, N.Y., 1996.

Reviewed by John Barnes

Lindisfarne Press's Renewal in Science series is committed to publishing works that deepen and enliven our understanding of nature and science and to making these works widely available to the American public and scientific community. *Genetics and the Manipulation of Life* by Craig Holdrege and *The Wholeness of Nature* by Henri Bortoft, the first two books in the series, have just been published and are currently available in bookstores throughout the United States.

Craig Holdrege is a high school science teacher at Hawthorne Valley School in Harlemville, New York. In this very readable, well-illustrated work, Holdrege succeeds in placing the highly specialized, highly controversial field of genetics and genetic engineering back into the full context of life itself. By letting the phenomena themselves speak, as it were, he provides a basis for healthy judgment in a field that may have an unprecedented impact on future life on earth, a field in which, however, our current understanding lags far behind our ability to act.

The book begins with striking examples of the plasticity of plants as they develop in response to their environment. Holdrege shows how, through their extraordinary responsiveness,

plants actually express — as a whole and in every part — the qualities of their environment. He then describes how Gregor Mendel, in his experiments, limited his attention to fixed hereditary traits less subject to the mobile plasticity of the organism and how these traits were later found to correspond to the genes at a molecular level. He points out how the thinking involved in this reductionist process leads inevitably to the popular belief that DNA must contain the information that ultimately determines every aspect of the organism

Closer examination, however, reveals that this information, projected into DNA, emerges only when the DNA is seen in the light of its context within a particular organism. The information lies clearly "in between" the parts and can be apprehended only through an understanding of the organism as a living whole. The moral issues raised by genetic engineering are shown to be intimately connected with our scientific approach. When we view organisms as composed of discrete, interchangeable parts and as isolated objects removed from their context in life, we remain detached observers. Responsibility arises as a separate issue.

Viewing organisms as living wholes within their greater context involves inner participation and leads of itself to a sense of responsibility.

The book includes lively accounts of detailed factual information rarely found in popular literature. By virtue of its approach and content, it will be of vital interest to specialists and to the general reader alike. As prominent biologist Lynn Margulis commented, "This essay by Craig Holdrege is for all of us who want to understand the biological revolution of the late twentieth century."

Henri Bortoft is a physicist and a student of David Bohm —the noted British physicist who wrote *Wholeness and the Implicate Order*. Bortoft has written an excellent general introduction to Goethe's scientific method, intended for those who wish to understand its underlying principles. In this major work Bortoft succeeds masterfully in articulating the essential nature of Goethe's approach and contrasting it with that of conventional science. He shows how, for example, in Goethe's study of color each color has its meaningful place in the generative order in which the colors arise, as when light passes

through a prism and a spectrum is formed. The reductionist approach, in contrast, explains the phenomena in terms of theoretical models. Here the sequence of colors in the spectrum is arbitrary, corresponding only to their wavelength or angle of refraction.

Turning toward the organic realm, Bortoft shows how, in Wolfgang Schäd's view of mammals, each facet of an animal's physiology reveals an essential quality of the animal as a whole and each species brings a specific aspect of the greater mammalian "type" to one-sided expression. Thus animals are no longer seen only as arbitrary results of the random mutation and recombination of genes, subjected to natural selection, but as meaningful expressions of a dynamic potential that reveals itself in the multiplicity of animal forms. Having illustrated Goethe's approach through such examples, Bortoft proceeds to place it within the framework of twentieth-century scientific and philosophical thought.

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Henri Bortoft will be on a lecture tour of the United States this fall: October 24-26, Sacramento; October 28-30, San Francisco; October 31, Portland, OR; November 1-3, Boulder; November 5, Ann Arbor; November 6-7, Chicago; November 8-9, Spring Valley, NY; November 13-16, Greensboro, NC; November 19-23, New York, NY; November 21, New Palz, NY; November 25-27, Harlemville, NY. (For information on the tour, call John Barnes at 518-672-4736.)

