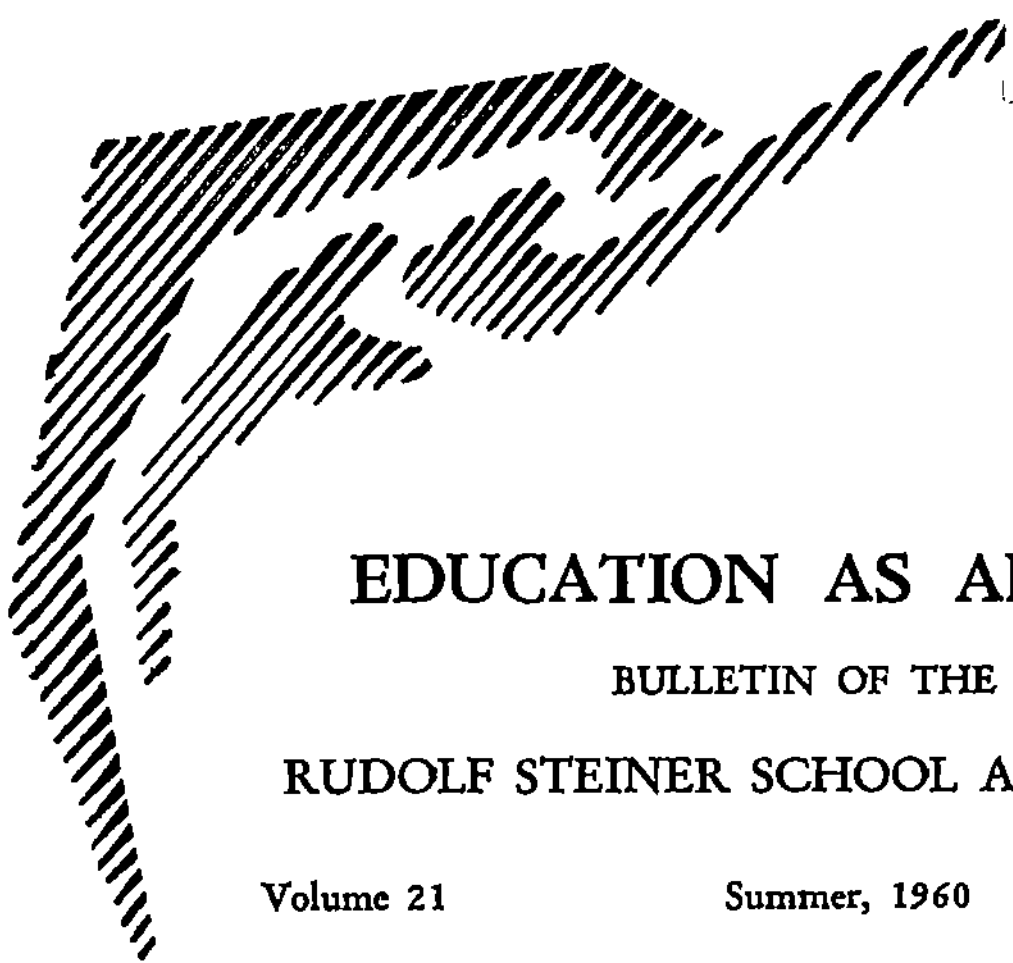




EDUCATION AS AN ART

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THE TEACHING OF WRITING

Teaching the first letters to children of six or seven years old is a happy experience. Even those who already know their alphabet are delighted to follow the curve of the W in the flow of the wave and the rearing form of the snake in the S. It is not hard for them to remember letters that are taught through pictures, and they enjoy expressing them in vivid colours in their books. The real difficulty comes later, when the step has to be taken from letters to words, and when the forms and pictures have to be associated with particular sounds. At this stage it is worth while for the teacher to ponder upon the development of writing through the course of the ages; for a deeper understanding of the history that lies behind these apparently arbitrary marks, called letters, guides us in building the bridge from the learning of the alphabet to the comprehension of words and sentences.

In teaching writing we should concern ourselves not so much with the shapes of the individual letters as with the powers of understanding and movement that are called forth. We need to consider what happens in the soul life of the child when it is shown a number of meaningless signs and is told that these stand for well-known words. Or again, what happens in the bodily development when pages have to be filled with niggly black marks.

Long ago mankind had not acquired the capacities for writing and reading. Whatever forces we use to-day for these attainments could be directed to other ends, and thus the powers of picture thinking and of the spoken word were much more vivid. Only those who had gone through the strictest training so that the living quality of thought and feeling should not be lost in the abstract signs, were allowed to write. The teachers of old would have been horrified if the art of writing had been used as it is to-day for utterly trivial ends. Only that which was most lofty and sacred was worthy of being expressed, and a scribe could even be put to death if a mistake were made in transcribing the holy texts. Children when they learn to write today should also be given the impression that wonderful meanings are hidden in letters and words and that these should be written with beauty and devotion.

Speech and thought precede the written word and different qualities of thought or speech find different degrees of expression in the various alphabets. Some reveal most strongly the picture quality of thought, like the Egyptian hieroglyphics. Others are more concerned with its force and movement. For instance, in the cuneiform writing of the Chaldean epoch there is no picture quality. The wedge-shaped letters remind us of little arrows that shoot straight to the mark. The Chaldeans felt the will-element of speech that pierced the hearer with the power to hurt or heal. In the Greek alphabet we find that the growing, forming power of sound is represented. There is something plastic in the Greek letters, and we can often feel their connections with the movements of Eurythmy.

There is one ancient script that seems to have no connection with picture or sound, and this is the Ogham alphabet of the Celts. It was divorced from symbol and form, not because it was purely abstract and empty of content, but because the wisdom expressed was so sacred that none who were uninitiated must guess its meaning. The series of cuts or notches could give no hint of the mysteries they had to impart. The study of the Ogham letters is very illuminating for the teacher who would like to penetrate the processes that lie behind the forming of an alphabet. The first five letters of this script are formed by a series of scratches, one, two, three, four or five, below and at right angles to a line; the next five by a similar series above a line; the next set are drawn across a line at an acute angle, and so on. No ancient alphabet appears so lifeless; yet all the letters had names, and the one who knew these knew something of their significance. Robert Graves in his book *The White Goddess* has tried to penetrate the mysteries of the Ogham letters. They all had the names of trees, and he concludes that they express what he calls a "seasonal tree magic." The first letter is named "birch," the second "rowan," the third "ash," and so on. There are thirteen important consonants, and he relates these to the thirteen lunar months in the solar year, while the five vowels are more connected with trees related to the planets. The Druids preferred to express their alphabet by a kind of deaf and dumb language upon the fingers and only transferred movements to notches on stone or wood when they had to communicate with those who were not present. Each finger was felt to have its special quality. The thumb was the most able to sense love, the first finger knowledge, the middle finger was able to foretell the weather, the fourth finger diagnosed illness, and the fifth finger was able to divine death or make a corpse to speak. We need not accept all Robert Graves' conclusions as valid, but he has understood that the living qualities of the trees and the seasons of the year in which they attain their strongest forces are related to the qualities of the sounds to which they give their names. We also know through Eurythmy that each consonant has its

special quality in connection with the passage of the sun through the twelve groups of stars. And through the nature of their sounds, consonants can work in an enlivening or a soothing way upon the soul life of the child. We learn through Eurythmy also that each sound has its right and necessary form.

Picture, movement and sound—all these lie behind the letters which have now become conventional signs, and children should feel the presence of these powers when they learn to write.

Most teachers find that children differ very much in their abilities to grasp what they learn. Some more readily relate themselves to the picture element, while others are more aware of the sound. A few can form their letters very beautifully without waking to any consciousness of either picture or sound. In my own first grade I had several outstanding examples.

One little boy had a marvellous sense of colour and drew the most beautifully formed letters; but if I asked him for a word beginning with the sound "t," he would as likely as not reply "goat" or "pig." For a long time he could not relate words beginning with the same sound. On the other hand, there was a little girl who loved the story and the pictures of the snake and the fish; but when she came to draw them, her snake was a series of nervous jerks and her fish was more like a sausage exploding in a pan. She had no ability to control the form of what she really understood quite well. She was, however, very musical, and had no difficulty in providing a string of words beginning with any sound she was given. A third child who came from a farm could copy his letters with lovely curves and tender colours, but he lived in a dream and never remembered what any of them meant.

We should bear all these types in mind, and, in the teaching of the letters, pictures, movement and sound must all play their part so that the different children become harmonized.

As far as the pictures are concerned, every teacher should make his own, but it is better, I think, to give those which imply movement than those that are static. The snake, the fish and the wave are all good from this point of view. For "H" the picture of a horse is more alive than that of a house, although it is very tempting to draw a pretty little cottage with two high chimneys. For "G" a goose looking back over its tail is more comical and appealing than an open gate leading into a garden.

While the children are busy developing their letters, a good deal of attention should be paid to form for its own sake. In many round games and exercises they can run straight and curved lines, and it is a good practice to let them draw or write these on a large scale, perhaps with a wet mop on the floor or a rake in the sand pit. Nearly every main lesson I used to allow some of the children in my own first grade to come in turn to draw on the blackboard. They could choose their own colours to make strong straight lines or bold curves, and soon they gained confidence and could draw with strength and certainty.

As children learn to know their letters, copying of writing should go hand in hand with words or verses which they already know by heart. Then gradually the writing takes on meaning for them. Nursery rhymes are very helpful in the first writing lessons, for children suddenly recognise with the great joy of discovery the familiar words emerging from a whole series of jumbled

letters. It is inadvisable to make special sentences of very simple words so that writing may be easy for them, for this is really boring and gives them the feeling that writing has not anything very important to say. They should keep best books, and their work in these should be a very serious and solemn affair. At the same time, as soon as children begin to recognise words I think it is helpful to give them dictations of tiny phrases which they know by heart, where the letters follow the sounds fairly closely. Thus they have continual practice in listening. Children readily accept the inconsistency in spelling. The teacher can explain that every word is like a family; and just as most families have babies or old grannies who do not do any work, so most words have letters that do not make any sound. Also just as their fathers sometimes like a change from the office and choose to dig in the garden, some letters like to change their work. "C" will sometimes do the work of the king "K," but sometimes it prefers to make the sound of the snake. English spelling is certainly a handicap to quick progress in writing and reading; but perhaps it is a saving grace for the English who so love to take life easily and judge from the standpoint of common sense, that in their spelling they cannot for a single moment feel secure. Perhaps they also owe to their spelling and their involved tables of measure and weight that they are very rarely pedantic.

The chief aid to the grasp of the sound in letters should be Eurythmy. It is best if a class teacher can work closely with a Eurythmist so that as the children learn to write they can also experience how movement and form are created in accordance with sound, and how poetry, which paints word pictures for the eye of the soul, can also be expressed in movement which calls to the spirit to dance.

It is a strenuous task for the teacher to help his class to unfold all the powers which lie behind the forming of the letters; but it is wonderfully worth while. Perhaps the greatest reward comes when a child whose faculties seemed to lie dormant suddenly begins to awake. The writing which was so crippled and ugly grows in beauty and strength; and the eyes which looked puzzled and fearful shine with a new light. May all of us who teach writing and reading take it as seriously as those masters of olden times.

—*Eileen Hutchins*

Eileen Hutchins is a teacher at Elmfield School near Stourbridge, England. Her article is reprinted with the kind permission of Child and Man.

THE SEVEN SECRETS OF THE SNAIL

The snail is one of those animals often looked upon with contempt, yes, even with disgust, unless (as in France and Spain) it is eaten as a delicacy. This is the large vineyard snail, which carries a shell. In order to build up its house, it must have lime, and therefore one finds it particularly in regions rich in limestone.

Insignificant as they are, the snails have many magnificent relations, great sea snails with glorious colorings and markings on their thorny spiked houses, which glow inside like mother-of-pearl. If you hold one of these shells to your ear, you hear your own blood rushing through it, and you are likely to say it is the roar of the sea echoing mysteriously within the structure. Such snails are often wrongly called mussels. But mussels, instead of houses, have only two shells joined together by a moveable joint. Precious pearls can form in

these mussel shells. The snails, on the other hand, have only a paper-thin layer of mother-of-pearl on the inner side of their house, and no pearls.

Whoever really wishes to understand snails must learn that all of them are water animals, even when they crawl around on land. The most magnificent ones are to be found in tropical waters. In comparison, our vineyard snail with her golden-brown house striped with darker color seems a most insignificant creature. One hardly even sees the markings on her.

Yet the snail's house is one of the most remarkable and wonderful of Nature's structures that one can imagine. Is it perhaps merely a metamorphosed bone? No, it is not. It is a house, as its name signifies. Someone lives in it, and she who lives there has built it herself. She can slip in and out, but because she has grown on to it, she must carry it about with her like a knapsack wherever she goes. Hidden far within it are her intestines. Many of the beautiful sea snails have much thicker and therefore much heavier houses, but the sea helps to carry them. The larger the snail grows, so much bigger, of course, must her house become. It has only one room and this is wound in a spiral. The snail must wind herself within it until she finally looks out in front. Wonderful secret, you winding snail house!

Occasionally one finds an old snail house in which there is no snail. If one takes a fine saw and saws it from top to bottom, what does one see? First of all, the house has a spiral staircase in the center, or, more correctly, a hollow spindle. This shows that the snail house is nothing more than a tube that is twisted around. It is narrow at the top and becomes wider at the bottom, wound up in the form of a spiral. As long as the snail is still growing, it continually puts new bands on the front of its house. At first they are thin and breakable, but when the snail has reached its growth, she thickens the rim of the house and turns it out a little. This is called the 'lip'. In this way the snail sweats out its own house, taking the limestone she needs out of her food. Sometimes one can see snails creeping high up on housewalls, where they gnaw the chalk from mortar and stones. According to what she finds to eat, her house grows in irregularly thin or thick stripes.

Her house is the first snail secret and certainly not the least important. The second and third secrets have to do with the way the snail crawls. She has no legs: only a foot with a creeping sole. One could also call it a tongue which she sticks out and pulls in again, and on which she rides around. On her head she has two pairs of feelers. When she crawls, it seems as if she flows; one does not hear a sound or see any motion. But if one lets her crawl over a glass plate, one can see the beautiful waves that go along the sole. One can easily observe this too with water snails in an aquarium. Slowly and quietly one wave follows the other, and each time that a wave begins at the back, the foot is shortened. When the wave arrives at the front, the snail stretches itself again. And so proceeds this quiet gliding.

This is the second secret, and the third belongs to it. The snail does not really stand on terra firma. It is as if she were swimming on a very small pond, a pond which she herself over and over again spreads out before her. The slime, or mucus, which she excretes, sticks to the earth but not to the snail. Even when the slime dries up, it sticks to the ground and one can see it glittering there. The snail doesn't care whether she travels a rough or a smooth road, for she glides along on her own slime. She can climb up steep walls or crawl on the ceiling, and can even glide along on sawdust without any trouble.

For those who do not know it, it will come as a surprise to learn that not a single snail has ever touched the earth with its foot. This is quite a snail-wonder! With sea snails one would take this for granted — but land snails? What do they do? They take their own little lake everywhere they go in order to swim on it. The lake is their mucus. It is really so.

We need not be surprised that when there is a drought or hot sun no snails will be moving. They wander about only in moist weather, especially at night. Otherwise the lake they bring with them would dry up, and they with it. Whenever water dwellers go on dry land, they must be very cautious indeed.

The fourth snail secret has to do with the senses and the sense organs. Naturally one cannot expect a simple creature like a snail to have the well developed sense organs that a human being has. And yet they have to a nicety all the senses they need in order to crawl about and find leaves. The two eyes on the big feelers are very shortsighted. However, for a snail this is all right. As a matter of fact, she sometimes bumps into something, even though she moves so very slowly. If you bring your finger up close, she pulls herself together before you touch her, and draws her eye-feelers inside like the fingers of a glove. She can do so because the feelers are hollow. She probably feels the warmth of the body that approaches her. Her sense of touch extends over all her exposed body and is extremely delicate.

They have their favorite foods, these vineyard snails, and one of them is cabbage leaves, which they always know where to find. Tests have proven that the tips of their feelers are at the same time their organs of smell. Their sense of taste is naturally in their mouth on the underside of their head, and if one can speak of a sense of hearing in snails, it can probably be assigned to the naked skin which is so extremely sensitive. At any rate, they have no ears. If you are a snail, it is not so terribly important, after all, to have the senses exactly differentiated. Therefore Goethe says in *Faust*,

“You see that snail there? See her groping face!
Already, creeping hither steadily,
She’s scented something out in me.”

One might not think it possible but it is true that these wet, chilly snails are sensitive to warmth. They not only love it but they need it. Since vineyards are always planted in warm spots, many snails can be found there and take their name from them. However, it must not become too dry. If there is no rain in the summer, or it becomes too hot, the snail too is in danger of drying up. And so she draws back into the safety of her little house and waits until it rains again. This is her summer sleep. Beforehand, she crawls under a canopy of leaves where it is nice and shady. She then secretes slime on the outside of the door of her house which quickly becomes hard. Inside she can live for months, and some desert snails even for years.

The fifth secret is the snail’s mouth. This greedy creature has lips and even a tooth with which she can bite off little pieces of leaves. If one listens carefully, one can hear crunching sounds. The real wonder, however, is her tongue. The snail pushes it out only when she wants to scrape something off. Naturally it is not a real tongue but more like a tiny mangle or roller; it has no tongue tip. It is like a very small grater with innumerable fine teeth. When the snail presses this tongue roller to a leaf, she does not bite but rather rubs from front to back.

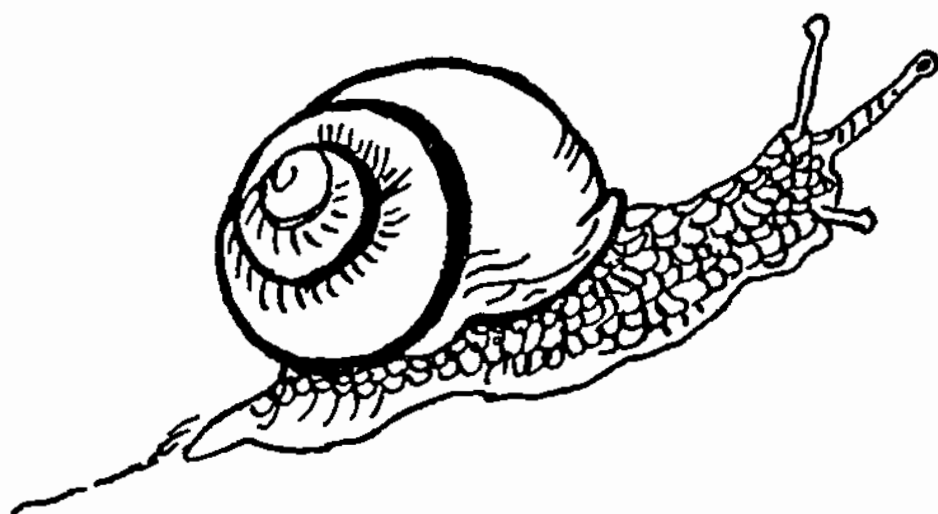
With a microscope one can see very clearly that the little teeth of the snail's tongue are placed in a wonderful order, many rows behind one another like the scales of a pine cone. So carefully are they formed that the snail investigator can classify by them particularly the different kinds of snails. Is it not queer that animals can be distinguished through their tongues? But then there is nothing firm about a snail. That is why she is called a mollusk, i.e. soft.

The snails' sixth secret is their breathing. Their lungs lie hidden under their house, but one can see a breathing hole, one only, which leads to the breathing, or mantle, cavity. The snail can open and close the hole, but she doesn't really breathe. She simply lets the air stream in and out of herself. When one moves as slowly as a snail, one never gets out of breath; a snail sort of lung is sufficient.

Reproduction is the snail's seventh and last secret. Vineyard snails lay eggs, white ones, which have a thin, chalky, parchment shell. They are as large as peas, which is very large for a snail. When one considers that the snail lays sixty of these eggs, one after another, one can call it quite an achievement. Beforehand, to prevent the eggs being found by the many gourmets that would appreciate them, Mother Snail first of all digs a hole in the earth. This, to be sure, is a difficult job for her. She needs from ten to twelve hours to do it, for she has no other tool than her soft foot. When the pit is four inches deep, she begins to lay her eggs. If one catches her at this egg-laying, one finds her sitting halfway in her hole. Yes, it is a toilsome work to lay such large eggs. The process lasts many hours, because the eggs follow each other only at intervals of a half hour. However, snails have time, lots of time. When she is finished, Mother Snail covers the eggs carefully — and doesn't bother about them any more. After 30 days tiny snails crawl out of the eggs.

How lucky that it is not granted to every young snail to grow into a large one! For each one, in that case, would lay sixty more eggs. The earth would swarm with big and little snails, and soon every leaf would be eaten up. But Mother Nature has made other calculations. She has considered the many hungry stomachs of the animals which like to eat snails, large or small. The blackbird, for example, cracks the hard shell on a stone. One can sometimes find stones surrounded by many broken snail houses. The blackbird always uses the same stone for his cracking. Other snail exterminators are the starling, the song thrush, the shrewmouse. In nature everything has its compass and its purpose.

Finally when it gets too cold for an animal that must creep around as naked as the snail, she hunts up a little hiding place to spend the winter. Then she draws herself back into her shell and sleeps. Before doing this, she expels some limestone in front of the opening of her house, to make a cover that will keep out the cold. As she draws herself ever further back into the shell, she makes several such covers, one behind the other. Often she spends the winter in a hole in the earth with the cover upwards, leaving open only a tiny breathing hole. When spring comes and the frost is gone, the snail pushes her cover away and looks out of her house again. One can find these covers lying around everywhere. Pick one up and examine it: you will see how fragile they are and what a beautiful form they have.



And so there are seven great secrets that the snail can teach us. Which one is the most important? None or every one! Who can say? — for truly, the one that seems the greatest is just the one we are wondering over at the moment.

—Gerbert Grohmann

(Translated by Anne S. Barnes)

"The Snail" is a chapter from Grohmann's book, Lesebuch der Tierkunde, a nature book for children. Besides his work as a scientist and writer, Dr. Grohmann was a teacher at the Waldorf School in Stuttgart, Germany. This is the third excerpt from his book; the others were "Praised Be the Earthworm" and "The Brown Bear" in Nos. 3 and 4, Vol. 19.

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