

Finding truth in art, beauty in science

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THE attitude towards music, painting and rhythmical movement as school subjects has very much changed during the last 50 years. A few decades ago these were not part of the normal curriculum but were extras for pupils particularly gifted or for those not capable of academic work. Today most educationalists have come to the view that the arts play an essential part in education. But they are now too often regarded as opportunities for self-expression rather than as studies with their own necessary disciplines. And in general there is little connexion between them and the standard school subjects.

In a Rudolf Steiner school all branches of knowledge are regarded as different aspects of one essential theme—the relationship of man as a spiritual being with the surrounding world. History, geography, physics, maths, chemistry, and so on are all studies in pursuit of this basic understanding. Literature, music and art cannot be kept in separate compartments. Children need to express their thoughts and feelings about history through drama and pictorial art; arithmetic and geometry are essentially related to rhythm and form; chemistry requires an imaginative observation comparable to that of a poet. But if these relationships are to be truly developed, then the arts cannot be regarded merely as safety valves for pupils to express their subjective feelings.

There are laws of colour as objective as those of mathematics. Early in their school life children begin to realize the qualities of colours. A red snake upon a green field leaps into life, while a blue one almost disappears. A yellow flower shines against a blue sky, but loses its brilliance among green leaves.

In physics lessons, when pupils are about twelve, they learn to observe complementary colours. It is for them an almost magical experience when, after looking intently at a bright scarlet disc, they turn their gaze to a white background and become aware of the delicate jade-green after-image. Later, in the upper school, their attention is drawn to the way in which leading artists use complementary colours. Exercises in copying some of the paintings of Turner or the Impressionists can alternate with their own experiments in colour contrasts.

Forms and patterns also have their objective qualities. In the

younger classes a great deal of attention is given to movement. Marching in a straight line has a different effect upon children from making circles or moving through spirals and lemniscates. The regular performing of certain patterns has a harmonizing influence on those who are restless and unconcentrated; walking backwards and becoming aware of dimensions in space strengthen the will and the memory. Drawing of forms and completing of symmetrical designs and mirror pictures are also of value. For the slow, dreamy child, sharp, angular figures bring awake consciousness; for the precocious one, flowing, rounded forms have a tranquilizing effect.

These exercises lay the foundation for a sound understanding of geometry. What children have experienced in their limbs comes to consciousness in their thoughts in later years.

The gift of expression in language is no less an art than music or painting. But now that the teaching of English is becoming freer from the formal disciplines of grammar and sentence structure there is a general uncertainty about how it should be taught. It is taken for granted that children should learn to express themselves, but the teacher is warned against providing the material to be expressed, for this would be preconditioning the minds of the pupils.

A good example of the general bewilderment is illustrated in "The Uses of English", Herbert Muller's report of the Anglo-American conference at Dartmouth College.

One possible approach is the inter-relating of the teaching of English language with other subjects. In their scientific studies pupils are taught to observe accurately. This training can be further developed in their exercises in writing. They can be led to describe the scenes and activities around them. The first essential is that details should be accurately recorded. Vague descriptions can be shown as of no value. Clearly observed characteristics of individual plants, animals or scenes are required.

The second stage in the art of describing is the inter-relating of details around a central motive such as the mood of a particular autumn day, the impression of a storm, the way in which the outer characteristics of an animal reveal its nature, and so on. The subject matter of botany and zoology lessons is approached from another angle.

Pupils can at the same time be introduced to the work of authors who have written of similar themes. In this connexion the poems of Robert Frost are especially suitable, as his faithful observations lead to a heightened sensitivity and awareness of the relationship between man and nature.

As it is often a hard struggle to get pupils to be willing to

express themselves, teachers are sometimes led to encourage the writing of horror stories and science fiction, or to arrange debates where personal views are aired. Though these methods may be justified as a first stage, there is a danger of establishing the assumption that language exists merely to express one's own opinions. We need to confirm that language is a medium of understanding and that this is impossible without a regard for truth.

A sense for the right use of words can be awakened by connecting language with history. Pupils are interested to discover the different qualities of words of Old English origin from those of French or Latin. They enjoy finding expressions which English pioneers have borrowed from countries all over the world. They can appreciate searching for synonyms and sensing the varied shades of meaning in their use.

Speech exercises can bring awareness of the qualities of sound. Alliterative phrases using "s" and "r" are stimulating and invigorating; those with "m" and "l" are calming and lulling. Pupils find pleasure in making their own examples and trying these out in various rhythms. They can be brought to realize that deep feeling lifts language on to another level than that of our everyday commonplace conversation. The expressions of blessing and cursing, of prayer and of grief, have their own grandeur.

Today a sense for the truth of imaginative knowledge has to a great extent been lost. Yet it is only in this light that the value of legend and literature can be known. They reveal more profoundly than history the aims and ideals of a race or civilisation. Pre-Christian myths resemble the stories of the Old Testament; they tell in imaginative form of man's loss of an ancient wisdom and union with nature and his development of independent consciousness.

Children themselves go through a similar stage and, if the stories are brought to them at the right age, they derive strength from the tragedy and courage of man's struggle to find his true being. In the upper school they learn to relate these great themes to the changing consciousness of man through the ages and to follow his development from a narrow tribal religious life to the Christian conception of world brotherhood, and his emergence from the guidance of a priestly cult to the sense of individual responsibility.

Today the teaching of scientific subjects has tended to become abstract and divorced from human values; the arts have become experimental and chaotic. They need to be reunited in the light of a truer understanding of man.