

Rudolf Steiner and Technology

Translated by Ted Warren

From “The Destinies of Individuals and of Nations” lectures given in Berlin from September 1, 1914, to July 6, 1915—from the lecture given on January 19, 1915: “The Nature of the Christ Impulse and Serving the Michaelic Spirit”

[Today] we live among the hustle and bustle of the present age, and we can certainly say that the mechanized life has also spread everywhere. Fundamentally speaking, we are always within the mechanized life of the present age. When asleep, the soul merges into everything that is mechanism. These are mechanisms, however, that we have constructed ourselves. A mechanism we have built is something quite different from nature outside us, for this has been constructed by the elemental spirits. When we are out in the woods, for instance, where everything has been built up by the spirits of nature, we are in an environment that is totally different from the environment of mechanical contrivances created by ourselves. What are we doing when we take things from nature and put them together to make the machines and appliances we use in our lives? We are in that case not merely putting together physical components, for in putting together physical components, we always provide opportunity for a demonic Ahrimanic servant to unite with the machine. We do this with every machine, every mechanism, in everything of this kind that is part of modern civilization, providing a point of attachment for demonic elemental spirits of Ahrimanic nature. And living surrounded by machines, we live together with these demonic Ahrimanic elementals. We allow them to enter into us; we allow not only the squealing and groaning of machines to enter into us, but also an element that is eminently destructive for our spirit and our soul.

Please note—and I have often made a similar comment on similar occasions—what I am saying is not intended to be a criticism of our Ahrimanic age. It has to be like this, that we allow demons to stream into everything and allow ourselves to be surrounded by them. It is part of the evolution of mankind. We have to acknowledge the simple necessity for this and understand the real impulse of spiritual science. And so we will not sing the praises of people who

say it is necessary, as far as possible, to protect oneself from the demons and to shun civilization and that we should set up a colony as far away as possible in the wilderness to save us from having anything to do with these demonic Ahrimanic elementals. That has never been the tenor of my words. I have always said that we must entirely accept what comes to us out of the necessity of evolution, that we must not let ourselves be induced to flee from the world. We need to take heed, however, we need to understand that conditions are such in our age that we are filling our environment more and more with beings of a demonic nature, that we are more and more involved with the principle that is mechanizing our civilization. An age such as this calls for something quite different than the age out of which Joan of Arc was called to do her work.

From “Soul Economy and Waldorf Education” lectures given in Dornach, Switzerland, December 23, 1921 to January 5, 1922—from the lecture given on December 31, 1921: “Children from the Seventh to the Tenth Year”

To believe that anthroposophists always rail against new technology is to seriously misunderstand this movement and its contribution to our knowledge of the human being. It is necessary to see the complexities of life from a holistic perspective. For example, I do not object at all to the use of typewriters. Typing is, of course, a far less human activity than writing by hand, but I do not remonstrate against it. Nevertheless, I find it is important to realize its implications. So you must forgive me if, to illustrate my point, I say something about typewriting from the point of view of anthroposophic spiritual insight. Anyone unwilling to accept it is perfectly free to dismiss this aspect of life’s realities as foolish nonsense. But what I have to say does accord with the facts.

You see, if you are aware of spiritual processes, like those in ordinary life, using a typewriter creates a very definite impression. After I have been typing during the day (as you see, I am really not against it, and I am pleased when I have time for it), it continues to affect me for quite a while afterward. In itself, this does not disturb me, but the effects are noticeable. When I finally reach a state of inner quiet, the activity of typing—seen in *imaginative* consciousness—is transformed into seeing myself. Facing oneself standing there, one is able to witness outwardly what is happening inwardly. All this must occur in full consciousness, which enables us to recognize that appearance, as form as an outer image, is simply a projection of what is or has been taking place, possibly much earlier, as inner organic activity. We can clearly see what is happening inside the human body once we have reached the stage of clairvoyant *imagination*. In objective seeing such as this, every stroke of a typewriter key becomes a flash of lightning. And during the state of *imagination*, what one sees

as the human heart is constantly struck and pierced by those lightning flashes. As you know, typewriter keys are not arranged according to any spiritual principle, but according to frequency of their use, so that we can type more quickly. Consequently, when the fingers hit various keys, the flashes of lightning become completely chaotic. In other words, when seen with spiritual vision, a terrible thunderstorm rages when one is typing.

Such causes and effect are part of the pattern of life. There is no desire on our part to deride technical innovations, but we should be able to keep our eyes open to what they do to us, and we should find ways to compensate for any harmful effects. Such matters are especially important to teachers, because they have to relate education to ordinary life. What we do at school and with children is not the only thing that matters. The most important thing is that school and everything related to education must relate to life in the fullest sense. This implies that those who choose to be educators must be familiar with events in the larger world; they must know and recognize life in its widest context. What does this mean? It means simply that here we have an explanation of why so many people walk about with weak hearts; they are unable to balance the harmful effects of typing through the appropriate countermeasures. This is specially true of people who started typing when they were too young, when the heart is most susceptible to adverse effects. If typing continues to spread, we will soon see an increase in all sorts of heart complaints.

The first railroad in Germany was built in 1835, from Furth to Nuremburg. Before this, the Bavarian health authorities were asked whether, from a medical point of view, building such a railroad would be recommended. Before beginning major projects such as this, it was always the custom to seek expert advice. The Bavarian health authorities responded (this is documented) that expert medical opinion could not recommend building railroads because passengers and railroad workers alike would suffer severe nervous strain by traveling on trains. However, they continued, if railroads were built, despite their warning, all railroad lines should at least be closed off by high wooden walls to prevent brain concussions to farmers in nearby fields or to others likely to be near moving trains.

These were the findings of medical experts employed by the Bavarian health authority. Today we can laugh about this and similar examples. Nevertheless, there are at least two sides to every problem, and from a certain point of view, one could even agree with some aspects of this report, which was made not so long ago—in fact even a century ago. The fact is, people have become more nervous since the arrival of rail travel. And if we made the necessary investigation into the difference between people in our present age of the train and those who continued to travel in the old and venerable but rather rough stage coach, we would definitely be able to ascertain that the constitutions of those

latter folks were different. Their nervous systems behaved quite differently. Although the Bavarian health officials made fools of themselves, from a certain perspective they were not entirely wrong.

When new inventions affect modern life, we must take steps to balance any possible ill effects by finding appropriate countermeasures. We must try to compensate for any weakening of the human constitution through our outer influences by strengthening ourselves from within. But, in this age of ever-increasing specialization, this is possible only through a new art of education based on true knowledge of the human being.

The only safe way of introducing writing to young children is the one just advocated, because at that age all learning must proceed from the realm of the will, and the inclination of children toward the world of rhythm and measure arises from the will. We must satisfy this inner urge of children by allowing them controlled will activities, not by appealing to their sense of observation and their ability to make mental images. Consequently, it would be inappropriate to teach reading before the children have been introduced to writing, for reading represents a transition from will activity to abstract observation. The first step is to introduce writing artistically and imaginatively and then to let children read what they have written. The last step, since modern life requires it, would be to help children read from printed texts. Teachers will be able to discern what needs to be done only by applying a deepened knowledge of the human being, based on the realities of life.