

LECTURE ONE - DR. E. LEHRS

Evening, 13th October, 1943.

Ladies and Gentlemen,

One of the questions you want to get answered through this conference is concerned with the historical position in the evolution of scientific thought, of the new methods of agriculture created by Dr. Steiner.

In order to answer this question, I must direct your attention to a decisive event about 150 years ago. It is an event which one can describe as a single one, although it is really composed of two components which at first sight seem to have little to do with one another. In choosing it for a starting point of my discussion I am making use of that method of historical research which Dr. Steiner has taught us in many of his lectures, and which he himself has called "Symptomatology of History". Facts and events in history are never anything for themselves alone, nor are they mere effects, caused by other preceding historical events. For the real moving force in history is a Power that is not to be found in the physical world at all; nor are the Ideas that shape the various happenings, from this physical world of ours, History is brought about by spiritual forces; better, spiritual beings who manifest themselves through the outer events.

Only the spiritual investigator is able to behold the acting and weaving of these beings and their forces directly. However, there is a way of approach to them, if one realises that the events through which they manifest themselves, are the SYMPTOMS of what is going on behind the curtain of the world of the senses. If one learns to take these symptoms as the letters of a kind of gigantic script, and if one learns to read this script, then one becomes able to decipher the great book of history in which there is written the spiritual destiny of mankind This is what Dr. Steiner meant by "Symptomatology of History", and in this sense I shall now try to show you what I believe to be one such great Letter, or rather a pro-syllable Word in the great language of History.

I have now to describe to you two simultaneous happenings which both took place during the years between 1780 and 1790 and which helped to transform completely western civilisation from two opposite angles. I mean the discovery of galvanism the one hand, and the translation of the Bhagavad Gita on the other hand. They really took place during exactly the same years when far away in the East Charles Wilkins, "Senior Merchant in the Service of the Honorable the East India Company, on their Bengal Establishment" opened the first seal of the hitherto unknown treasure of the ancient Sanskrit literature, and when down in Italy Aloisio Galvani saw his frog legs twitching under the influence of a near-by electric discharge.

Let us be clear of the fact that the moment the translation of the Bhagavad Gita arrived in the West, man's historical outlook became fundamentally changed. So far, the Bible and Homer had formed the earliest documents of human civilisation, and they had served as two foundation stones on which western man had felt to be building his own civilisation. Now suddenly the real roots seemed to have been laid open, and a spiritual element of quite a peculiar nature became known of which western man had not had the slightest notion.

The great surprise with which this document of an ancient past was met, is beautifully reflected in the accompanying lines with which the manuscript of the translation was sent to London. For it was no one else that Warren Hastings himself who had encouraged Wilkins to undertake the translation, and who recommended the printing of it to the London headquarters of the Company. Thus we read in the original edition of 1785, the following "ADVERTISEMENT": -

"The following work is published under the authority of the Court of Directors of the East India Company, by the particular desire and recommendation of the Governor General of India; whose letter to the Chairman of the Company will sufficiently explain the motives for its publication, and furnish the best testimony of the fidelity, accuracy, and merit of the Translator. The antiquity of the original, and the veneration in which it hath been held for so many ages, by a very considerable portion of the human race, must render it one of the greatest curiosities ever presented to the literary world."

A few passages from Warren Hasting's recommendation will show his own impression of this Holy Hymn of the ancient East.

"I hesitate not to pronounce the Gita a performance of great originality; of a sublimity of conception, reasoning, and diction, almost unequalled; and a single exception, among all the known religions of mankind, of a theology accurately corresponding with that of the Christian dispensation, and most powerfully illustrating its fundamental doctrines. I should not fear to place, in opposition to the best French versions of the most admired passages of the Iliad or Odyssey, of the 1st and 6th Books of our own Milton, highly as I venerate the latter, the English translation of the Mahabharat."

Warren Hastings sums up his brief sketch of the content of the Bhagavad Gita by pointing to the spiritual source of this ancient wisdom: -

"The Brahmans are enjoined to perform a kind of spiritual discipline, not, I believe, unknown to some of the religious orders of Christians in the Romish Church. This consists in devoting a certain period of time to the contemplation of the Deity, its attributes, and the moral duties of this life. It is required of those who practise this exercise, not only that they divest their minds of all sensual desires, but that their attention be abstracted from

every external object, and absorbed, with every sense, in the prescribed subject of their meditation."

He goes on to describe what he himself has watched as such a kind of practice at the principal temple of Benares, and illustrates the importance of this duty for the whole of the ancient eastern culture by quoting the last sentence with which Krishna closes his instruction to Arjuna, and which "is properly the conclusion of the Gita": -

"Hath what I have been speaking, O Arjuna, been heard "with thy mind fixed to one point? "Is the distraction, which arose from thy ignorance, "removed?"

Then he draws for his countrymen at home a comparison between such a method of truth-finding and their own, of whom he says that: Even the most studious men of our hemisphere will find it difficult so to restrain their attention but that it will wander to some object of present sense or recollection; and even the buzzing of a fly will sometimes have the power to disturb it".

He expresses his conviction that accumulated wisdom obtained in such a way by generations and generations training themselves to higher forms of perception, might "have led them to the discovery of new tracks and combinations of sentiment, totally different from the doctrines with which the learned of other nations are acquainted". In order to illustrate to his compatriots what might be possible to achieve through such well directed mental exercise, he compares it with what they are wont as the results of bodily exercise.

I expect it is clear what I have tried to bring near to your souls by these descriptions. Western man, who for a couple of centuries had busied himself with the building of a science purely making use of outer experiments and of what his senses could serve, and by using his mental powers without employing them in any other way than as they were given to him naturally, saw himself suddenly confronted with a spiritual culture whose great and lofty knowledge was the result of an inner transformation of the human mind achieved by the exertion of man's pure will on himself. Against this there stood what Western man had learnt to think about his own mental nature, who had as his basic philosophy that of Francis Bacon, the very denier of spiritual reality in human thought. I will let the latter speak for himself, as he has expressed himself on these matters in one of his works, called the "Novum Organon":

"Man as the minister and interpreter of Nature does and understands as much as his observation on the order of nature permit him; and neither knows nor is capable of more."

"All the perception, both of the sense and the mind bear reference to man and not to the universe, and the human mind resembles those uneven mirrors which impart their own properties to different objects.....and distort and disfigure them." "Everyone has a cave or den of his own, which refracts and discolours the light of nature."

It is on the foundation of this self-estimation of man that the discovery of Electricity was made and further developed, until it became able to transform to the very foundations, the human life on earth. Let us now see how this came about.

A short remark by Dr. Steiner in his first course of Lectures on Science has brought me on the track to find the real implications of Galvani's discovery. Dr. Steiner remarks that Galvani had actually discovered two different things together which "only must get separated from one another and which even today are not separated in an appropriate way - much to the harm of all scientific considerations." Trained by Dr. Steiner, not to be satisfied with the second-hand reports of historical events, as they are contained in our usual textbooks, I looked up Galvani's description.

Here I found to my surprise and satisfaction, something quite different from what one is usually being told nowadays. It became clear to me that the characteristic, though slight, deviations from the facts were due to the very confusion to which Dr. Steiner had pointed. For Galvani's discovery had come about in the following way: -

In the same room in which he was busy with preparing some frog-legs for his anatomical researches an assistant of his occupied himself, according to the fashion of the time, with calling forth Parks from a Wimshurst machine.

Suddenly the latter observed that at each discharge of the machine the frog legs at the other end of the table showed a twitching movement. As he drew Galvani's attention to this phenomenon, the latter had first to pull himself away from his own line of thought, into which he had deeply submerged. Then Galvani started upon a systematic investigation of the conditions under which this phenomenon could occur. (It would be beyond the scope of our considerations to go here into all the details. The gist of the discovery was this, that a sudden change of the electric conditions in the room could have such an influence on a specifically arranged nerve-muscle preparation of an animal's Leg that the latter was set into a kind of motion.

Some time later Galvani observed a similar phenomenon with frogs legs that had been suspended at an iron fence by means of a copper wire. With this description the tale of his discovery usually starts. However, Galvani naturally first ascribed the phenomenon to some atmospheric electricity (corresponding to the action of the machine in the room). Only after months of careful observation, during all possible weather conditions inside and outside the laboratory, he came to the conclusion that apart from the originally observed phenomenon there was also one caused purely by the inner conditions of the arrangement frog-leg and metals.

Again quite naturally he first ascribed the phenomenon to some inherent electricity in the frog's leg, perhaps similar to what had become known at the same time as the electric properties of certain species of fish. More careful investigation disclosed the cause of the electricity as being given by the contact of two different kinds of metals (the wire and the fence in Galvani's first

observation).

Then Volta came and imitated the thus discovered electric circuit in a purely inorganic way, and the seed of the electric age was sown.

Now let us put into simple words what Galvani had actually observed in the first instance. It belongs to the very foundations of our now approach to science, as this was first developed through Goethe, that we take pains to give the purest possible expression through the human word, to what we observe by means of our own senses. In this way we shall now try to put into words what Galvani had seen:

Under the influence of a sudden change of the electric as it condition in the environment of an animal limb, it behaves does in life under the influence of the animal's mind-guided volition. In both instances a certain interplay between the nervous and the muscular systems is necessary.

This is the one discovery. The other, quite independent discovery resulted in the finding that two different metals, when in contact under certain conditions, can be the source of an electric power. These are the two different things of which Dr Steiner spoke, and it is clear that the one has been completely buried under the other. If this had not happened, one would have at once noticed that with this electric power something from Nature's stock of forces had been played into man's hands similar to what he possessed as his inner power of Volition. However, instead of learning to explain Electricity in terms of Will, Western man was led the opposite way, namely to explain will in terms of Electricity. The path to the utmost materialism was thrown open.

If you ask me to-day: What is Electricity? - I can only give you one answer: Electricity is the released Will of Matter, For What we call Matter, is nothing but Frozen Cosmic Will, cosmic Will that has become stagnant through old age. That Electricity is nothing but transmuted matter has finally become evident through the discovery of Radium at the end of the 19th century. Here one is confronted with a metallic substance which continuously disintegrates and sends forth electric rays. However, instead of comprehending Matter as Will, and Electricity as freed Matter-Will, one again theorized the other way round, and to-day explains matter in terms of electricity!

That with the electric force a tremendous Will power has got into man's hands, can be evident to everybody in our own day. It is as if we have been enabled to prolong our very arms and to reinforce the energy of our muscles in an unlimited way. The youthful Americans with their playing attitude towards otherwise serious items, have shown an early appreciation of Electricity's nature and have applied it to their own manifold pleasure and thrill. You will remember what their arrangements had been when at the digging of the Panama Canal, President Theodore Roosevelt was called upon to solemnly remove the last bit of earth which separated the Pacific from the

Atlantic Ocean. There was no grand procession to take him to the spot there was no little silver Spade to serve the ceremonial act. No! he was just sitting at his desk in the White House in Washington, and, at a given sign, pressed a little electric button adjusted to his writing desk. And lo! by a tiny movement of a man's finger, far away in another part of the world, the earth's Geography was changed for ever!

About a quarter of a century later, at the occasion of the second World's Fair in Chicago, every evening, when dusk came up, the fantastic illumination of the huge area was switched on, not by a human hand, not even from elsewhere on this planet's surface, for meanwhile the American's had learnt to engage the starry world, the very Cosmos, to serve their own fun. It was the light of the star Arcturus that did the job. To this end a number of telescopes at different observatories all over the country were directed to this star and fitted with a photo-electric cell. They were so switched together that, wherever the sky was clear, there a telescope caught the star's light and sent its effect in the form of an electric impulse to release in the switchboard room of the World's fair.

And why just this star? The answer is that it was chosen because astronomers had calculated its distance as 30 light-years from the earth. This, however, was just the time between the two Chicago Pairs, or, in other words. the light which was doing the job in 1933 could be regarded as having left that star when Chicago was having its first World's fair!

It is amusing to observe what a widespread use the Americans make of this little ingenious device, called the photoelectric cell. You approach a door and it opens before you automatically. You bend your head over a drinking fountain, and the water springs to your mouth. Here you see how intelligence is coupled in quite a special way with volition. The following is perhaps one of the most uncanny devices: - as these cells are sensitive to the changes in the colour of the Light falling on them, use has been made of them for the rejection of discoloured beans. Whilst they pass along a conveyer belt at a rate of 90 a second, each bean is inspected by the Electric Eye, and if its colour falls short of a predetermined standard, a jet of compressed air kicks the bad bean aside.

It is quite wrong to think that the earth is populated by something like 1,000 million human intelligences plus just so many human will-entities. The real direction of man's affairs is taking place by innumerable more intelligences coupled with will units highly exceeding his own ones, however, of a completely non-human character. It will interest you to learn how Dr. Steiner looked at this problem at a time, when no one was yet imagining what humanity would be faced with in the future. When Marconi's discoveries became first known, and when in those early days of his teaching Dr. Steiner's theosophical listeners came to him with that story, convinced that this new means of communication would speedily help to weld mankind into one great brotherhood, Dr. Steiner had only this reply: that the time will not be far when by the same means someone, sitting

in a taxi cab in some town, could press a button and blow up a city far away elsewhere in the world. It remained a spiritual question which way round the possibilities of electricity would be made use of.

The peculiar nature of electricity has led to still another serious problem. So far as I remember, this has first been clearly expressed by Henry Ford in one of his books. Think for a moment of a great public work in the Middle Ages, say, the building of a cathedral. Practically everything was done by man-power. All these work-men had to be brought together on one spot. However, they, as living beings, required feeding, clothing, housing, etc. Other human beings were needed for these purposes. It can easily be seen that in this way there was always a natural limit for the massing up of productive power in one spot. For each Will-unit was not only a producing, but also a consuming entity. Even with the steam-engine certain limitations were given; for it needs water and coal, and these, being material substances require space.

The situation was completely changed as soon as man learnt to produce electricity from the natural source of the earth's waterfalls. Practically limitless amounts of working energy can be set free in practically no spatial extension at all; and no increase of the productive power, forces man any longer to plan the corresponding consuming capacity. What has naturally been in balance through all the past history has got out of balance, and the restoration of the equilibrium is a pretty social question, entirely given into man's free decision. Electricity indeed, proves to be the greatest moral, i.e. spiritual challenge for modern man.

Let us now ask what has become of the other component of that event of the last third of the eighteenth century. Against the Western challenge, coming from Electricity, there stands the Eastern challenge which we can sum up in the one word: Yoga. Can we trace its influence in a corresponding way?

The interest that was roused in the Western mind by the appearance of the Bhagavad Gita turned into two entirely different directions. The one was a purely literary, scholarly one. We see scores of learned men, a typical representative of them being, Sir Max Mueller, assiduously translating, compiling, commenting the ancient texts, however without the slightest interest for, nor understand of, their real spiritual nature. On the other hand, we see arising a wave of new interest in Occultism, which in itself took a most peculiar turn. For true to his characteristic trend of mind, the scientist when getting hold of the occult phenomena, wished to see the working of spiritual forces proved by way of physical experiment. In this way Spiritualism came into being, and the Society for Psychic research was founded in this country. Here now, we see once again in a most astounding way, Electricity slipping into the gap. For along the very ways of psychic research, the then president of the Society, William Crookes, discovered electric phenomenon of the cathode rays!

Crookes had set himself the task to discover the missing link between the natural forces and the undoubtedly existing spiritual forces of the world. A certain electrical play-thing called Geissler tube, was known to him, where in an exhausted glass tube electricity showed certain strange luminous effects. Here he could believe to have found one end of that bridge which connects the two shores of the Great River! There was, on the one hand, the most rarified state of matter, the gaseous one, which by means of a vacuum pump could be gradually brought closer and closer to pure Nothing. There was, on the other hand, electricity which, just when the material substance vanished from further direct percipience, lit up the scene in a most spectacular light. True to his spiritualistic background Crookes proclaimed his discovery as “radiant matter,” or the fourth state of aggregation.

Indeed, Crookes had arrived at the shore of a River between two lands. Only what he did not realise was the fact that it was not the river between man and the shining Will of the Gods, but down to the dark will of Matter. The cathode rays then have led to that we possess nowadays as the modern wireless, the X-rays, the Photo-electric Cell, the discovery of Radium, and the whole Electronic Conception of the Universe.

There still remained un-reconciled the Yoga-call from the East, with its one-sided turning away from tho world of matter, and the electric call from the West with its one-sided allurement into the submaterial world. Into this gap Rudolf Steiner came with his spiritual message which enables man so to transform his knowledge and his Will that he himself can become the true Link between the two worlds. Of this we will hear more in the next two lectures.

End of Lecture One

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LECTURE TWO - DR. E. LEHRS

Morning, 14th October, 1943.

Ladies and Gentlemen,

Perhaps it has been possible in yesterday's lecture to make clear to some extent what is meant by "reading History in Symptoms", and to what kind of spiritual impulse that remarkable twofold event of the last third of the eighteenth century, as a symptom points. From that moment onward our civilisation has been faced with the problem of an entirely new recognition of the dynamic forces of the world. In describing this we had to point to the twofold, as it were, polar nature of the power of Will. It is, of course, not difficult to realize that the call of Yoga, i.e. the call to a deliberate training of one's own cognizant being through well directed exercises, is a call upon one's innermost Will. On the other hand, it is at first sight a somewhat startling statement, if one defines Matter as: "frozen cosmic Will". Yet this it is, and just for this reason there is a mysterious connection between what is highest and most purely spiritual in our own human nature, namely our Ego, and what is lowest, and seemingly least spiritual in us, our physical-mineral body. For both are pure Will, the Ego being cosmically "young Will", whilst all material substance is "aged Will".

This accounts for the fact that without a proper understanding of the spirit of Matter, one is unable to understand the spirit of the Ego, and vice versa. It is, therefore, no matter of surprise that our present-day civilisation completely lacks in the understanding of both. Let me give you one outstanding example. I suppose you have all read, or at least heard, of that interesting book by Alexis Carrel, "Man the Unknown". Now, although I have set myself the task in these lectures, to speak to you, so far as possible, without applying the Anthroposophical terminology, I will use it here just to describe a certain phenomenon in the life of present-day science. You know that Anthroposophy must describe the human being as composed of a physical body, an ether-body - the bearer of our life-forces, an astral or sentient body - the bearer of what we call our soul-life. and our actual Ego; it is a remarkable phenomenon how many of the modern researchers begin to discover something of the working of the etheric and of the astral forces in the human organism. They don't give them these names, and they cannot describe them in their actual spiritual existence, but they learn to distinguish their reflections very clearly, for example in the different functions of our organisms. In this way you can find whole chapters in Carrel's book which could just bear the heading "Etheric Physiology" or "Astral Physiology", and it is most thrilling to read these descriptions which are based on such a marvellous knowledge of facts, sorted out and arranged by so modern a mind. Notwithstanding all these remarkable achievements, already the third page of the first chapter leaves one no doubt that Carrel's whole endeavour will be doomed

to frustration, for there one comes across the sentence that (against the many different views people are having about man's own nature) "a materialist and a spiritualist accept the same definition of a crystal of sodium chloride". If one reads such a statement out of an understanding of the world of matter kindled through Anthroposophy, one knows at once that this writer has blocked his way toward any understanding of man's spiritual nature, and that, therefore, the last chapter of his book: "The Remaking of Man", must needs be a failure. And this it is, for nothing can be more materialistic than what Carrel has to say there.

Let us now find our own approach to the spiritual nature of Matter and its relation to the spirit in man. Two concrete examples from Dr. Steiner's advices to the farmers will lead us on our way. From the series of prescriptions Dr. Steiner gave for the improvement of the compost and the manure, I will choose the preparations of the Yarrow and of the Chamomile. You know that the prescription concerning these two plants, as well as the various other substances, makes many an outsider shudder. He, as a farmer, so he would say, wishes not to have anything to do with Mystics! Now let us see what this "Mystics" actually is.

We are told to stuff a stag's bladder with the flowers of the Yarrow, whilst the Chamomile flowers are to be put into the guts of a cow. Both are then to be exposed in different ways to the influence of the outer elements. Now, you can certainly do this without at all understanding what it means. It will even work, and by its pure effect you can become convinced that, if this is "Mystics", it nevertheless contains a great deal of reality. However, I have understood from Mr. Duffy that you all have come together at this meeting not so much to discuss pure technique, but in order to obtain some understanding of the WHY of this technique. Why just the Yarrow and the Chamomile, and why just those two animal organs ?

Why just the bladder from the stag, and the guts from the cow ? Why not everything the other way round ? And so on. No answer to this is possible, thinking about matter in terms of atoms, electrons and protons, or of the forces of the world in terms of Einstein's theory of relativity for then all these indications are pure nonsense. Our way must be a different one.

Let us first of all try to get hold a little more of the nature of the two plants in question. You know that in the folklore of old, the plants used to have beautifully descriptive names which are nowadays mostly forgotten. But there are botanical books which still give them, and in one such book I found to my delight that an old Teutonic name of the Chamomile had been: BALDUR'S EYEBROW, and that among the ancient Mediterranean people the Yarrow had been known as VENUS' EYELASHES. These are really very strange names, and all the more strange, as they are both taken from parts of the human hair coat. In order to understand this, we must see what the Eyebrows and Eyelashes themselves signify.

Of course we shall not get any light on the matter, if we remain satisfied with such

explanations, as for instance, our poor matric children from the Waldorf School were forced to swallow when preparing themselves for their examination, namely that our eyebrows have the purpose of keeping the sweat of the forehead from the eyes, and that therefore those primeval men who were fitted with them were in the advantage when pursuing the enemy or running away from him, so that they naturally survived. Or, as once the chairman at a lecture given by our friend Harwood, when, in his closing words, "kindly" giving his own Darwinistic interpretations, declared that man's lack of an animal fur was due to the fact that after he had once for all learnt to use fire, those without hair on their body had naturally "been least exposed to being caught by a spark from the fire" Well, these are supposed to be scientifically serious explanations!

Let us see if we can find a different interpretation of the significance of hair. I will give you a practical example. Years ago when I had to be in hospital for some time, I was partly attended by a male nurse who appeared to be very troubled by his very remarkably curly hair. He did everything to straighten it, but without success. A nurse, who happened to know that I was an Anthroposophist and who had the idea that such people might be able to do all kinds of wonderful things, asked me whether I could suggest a cure for the lad's troubles. Now it had already amused me for a while to observe the young man's way of speaking and gesticulating. For he did it always in a remarkably 'curly' way. The curves of his bows and gestures and of his locks were of quite a similar nature. So I told the nurse that, if he could cure his way of gesticulating and speaking, his hair might also become straight.

What I want to explain to you by this example is the fact that through our hair, features of our astral being are revealed. Dr. Steiner has shown to us how the hair does not grow by being pushed out of the skin, but by being sucked out through the forces of what he called an "etheric-astral cap" which we all bear around our head.

This cap forms part of our whole etheric-astral being and therefore our hair reflects something not only of our general life-forces, but also of our emotional being. I wonder whether you have ever noticed that the natural curls of the hair never shift with the growing longer of the hair itself, but that they remain static at their place, so that obviously the hair grows across them. Really we carry an invisible form round our skull which assumes visibility through the hair filling it in.

Hair is always the indication of a special intensity of the working of the astral body. The reason why man has not the fur of the animal is that he has an Ego which has the power to hold the astral body together and to make it to its own instrument. In the animal, however, the astral body is completely given over to the bodily functions and simply forms and colours the surface of the whole body. What you see in the parrot's glaring plumage is nothing else than the manifestation of his astral being, which he as an animal cannot conceal. Whilst man "can smile and

smile and be a villain".

Now this emotional being of ours, lives essentially in a rhythm between two poles. We experience this in a simple way as sympathy and antipathy. But we must learn to understand these two terms in a quite objective way. In them there comes to expression what in the astral body goes on as Contraction and Expansion, or Systol and Diastol. Neither of them can be called 'good' or 'bad', for both are necessary. Through sympathy the soul goes out with her feelings into the world, and through 'antipathy' she withdraws into herself to gain knowledge of herself.

Through this twofold rhythm, our soul has two ways of uniting with the world; the one is by pouring herself out into the world, the other by trying to get the world into herself. Whenever the soul has for too long a time been prevented from the one or from the other possibility, she reacts with certain strong feeling, which we can describe as on the one hand LONGING, on the other hand as GREED. There is something in us which necessitates us to collect, to take in, to unite the world with ourselves: but there is something else in us which urges us to dilute ourselves into the world, to become one with it. These are the two fundamental activities of the astral body, in fact of all what is astral in the world. Now these two activities, these two astral gestures we find clearly represented in two places of our hair-coat, the one in our eyelashes, the other in our eyebrows.

Suppose you enter a room in which you find a bunch of beautiful flowers. Someone beside the flowers wants to know some thing from you about them, and asks you about their names, their botanical classification etc. Your reaction will be to ponder, to screw up your eyes, to tighten the brows above your eyes. For in them there comes to expression the antipathetic, the concentrative gesture of the soul.

Now suppose the other possibility, that you behold the flowers, simply impressed by their beauty, without thinking about them, but simply opening yourself up to their impression in pure sympathy. Don't you feel, as if your longer were flowing out from your eyes along your eyelashes?

These two attitudes of our soul occur in still other connections. What I am now going to say, is meant in a purely scientific way, i.e. without the slightest tinge of any valuation. For I will now call the expanding gesture 'Female', and the concentrating gesture 'Male'. I do not think that the Greeks in their Mythology would have been interested so much in Zeus' eyelashes. His of course were the eyebrows, and when he frowned them, men on earth heard it thunder in the heavens. Nor could old Teutons have taken a particular interest in the eyebrows of their female deities. Thus eyebrows are essentially a manly attribute, and eyelashes a womanly one. (This is why the ladies in our time like to remove their brows, and sometimes even take Lashes by artificially enlarging them.) Let us see what all this has to do with our Chamomile and Yarrow. You will realise that there simply grows the eye brow attitude in the Chamomile and the eyelash-attitude in the Yarrow. You only need to look at both plants one beside the other in order to see

this. Both belong to the group of the Composites. This means that what seems to be one flower is a whole collection of flowers. This is a very high stage in the kingdom of the plants. For something like a community is formed in which each part succumbs to the greater whole. In this respect both plants resemble each other. But in what a different way do they both make use of this faculty! Watch how the Chamomile rounds off its little yellow head, bending its petals downward. The pure gesture of collection. On the other hand the Yarrow goes even beyond the composite stage and forms a whole umbrella of flowers of which each tiny single one is a composite flower in itself. And this umbrella or umbel is first formed in such a way that all the many small flowers form a part of a sphere leaning as it were against the vault of the heavens. Later, when the seeds ripen, the whole umbel bulges in and forms something like a chalice. Yes, the Yarrow is all 'Longing!'. There cannot be any doubt that in times when such names as Baldur's eyebrows and Venus' eyelashes were given, people were having an, at least instinctive, knowledge of such deep truths in nature.

We must now turn our attention to the alchemical processes in the human and animal organisms which are in special connection with these two plants. We shall then be able to understand what Dr. Steiner has done in bringing these things together.

Our blood is a very mysterious substance, having to fulfil many different tasks. One such task is continually to build and to re-build our body. To this end, the blood coagulates in our organs in most different ways: here it makes brain, there a liver, there the heart, and so on and one and the same blood has the wonderful faculty of doing all these different things.

It can even do more. Let us think of our eye. Before birth it must grow and is formed into its proper shape. This continues only for a certain while after birth. But already in our fifth year our eye has reached its full size. It is from then onward not much more than a dead body, and dead it must be in order to fulfil its task as a sense organ. Now whilst it grows in the embryonic state, it is wholly permeated by a certain blood vessel, from which, shortly before birth, the blood begins to withdraw. If one dissects the vitreous body of the adult eye, one can still see the remains of this embryonic blood vessel. Think only how you would see, if that vessel did not die away. Instead of seeing the world, you would see your own blood. Only the birds do see precisely in this way, for they keep this vessel filled with blood throughout their life. (This simply shows you that the eagle cannot see at all in our way of seeing!

Whilst the blood in our eye has withdrawn physically, it has by no means withdrawn its activity. It is one of the materialistic prejudices to think that seeing was the result of a mere activity of the outer light on to the eye. Certainly the coming-in of the light is one thing. But to this there is added the other half, which consists in our flowing-out into the world. People of old still know that to see an object meant to touch it with a kind of etheric limb which we stretch out

through our eyes. So Plato still describes the act of seeing. (One will never understand how the first stage of higher consciousness is working, which Dr. Steiner describes as spiritual imagination, if one does not learn to understand the act of seeing in this way as a twofold one).

In this hidden activity of our sense organ, again the blood is our helper. Only here it works in a purely immaterial way. We learn from Dr. Steiner how the blood in our body manages to rid itself to such a degree from its corporeal thickness, that it can serve us in so refined a way. What there takes place, I can best describe by comparing it with what in outer chemistry we call DISTILLATION. For by means of this process one separates the lighter substances from the heavier ones, catching what has become volatile in a special container, while removing what has been left behind, as the so-called Caput Mortuum (Deadhead). Precisely this function, though in an immensely more delicate form is carried out in our body by the kidneys in conjunction with the urinary bladder. They have the wonderful faculty of sucking from the blood its material coarseness, so that it can radiate up into the eye in an immaterial form, and ray forth into the World as our gaze along the traces of the former embryonic vessel.

I have no doubt that you are aware of the fact that I have here described the 'eyelash' activity of the blood. Let us now see where the blood works the other way round, not flowing out in Longing, but taking in with greed. It is obvious that this activity is fulfilled by our whole digestive system. Here we must make the world to ourselves, even by totally destroying and transforming it. One of the remarkable things of the mysteries human organism, which Dr. Steiner has been able to disclose to us, is the fact that our food stuffs are not only chemically broken down into simple compounds, but that they are actually completely dematerialised before entering through the intestinal wall into the blood stream of our body. Thus here we observe substance from the outer world being refined by the activity of our organism, however, not through being separated from coarser parts, as in the process of distillation. For in this case the whole material substance itself is lifted up to a finer stage of existence. Also for this we have a simile in outer chemistry, where we call this process SUBLIMATION. Only in outer sublimation we are not able to lift the substance higher up than to the gaseous state, whilst in the digestive process it is elevated one degree higher, namely into the purely etheric form. This is the whole difference between Chemistry and Alchemy!

Now we go out to find in the animal kingdom, i.e. among the astrally endowed beings, where these two processes of Distillation and Sublimation are performed, to perhaps an excessive degree. We find them on the one hand as the antler-bearing deer, on the other hand as the horn-bearing cattle.

In the formation of the antlers every year, again nothing else takes place than what we have described as the change of the blood activity from our pre-natal to our post-natal life. Watch

how every year anew the antlers of a stag are formed, starting from a tiny bud and breaking forth with mighty power, all blood action that streams forth through the skin surrounding the growing bone. High up it streams until it has built the wonderful tree-like structure of the antlers. Then the blood-filled skin dries off. yet whilst no physical blood streams anymore along the dead bone, the blood goes on raying forth etherically from the stag's head far into the space surrounding. Many people have wondered how this animal manages to carry the heavy load of its antlers. They do not weigh at all, for they are carried by the uplifting etheric forces of the outer space. With an enormous sensitivity the stag flows forth into the world around as in a great longing. This sensitivity also accounts for the fact that he can dash through the dense wood without ever bumping against a tree with his far outstretched antlers. An animal in which this etheric blood process works so powerfully, must obviously have an equally powerful counter process of alchemic distillation in his urinary system. Hence the application of the stag's bladder in conjunction with the 'Venus eyelashes!!

On the other hand, is there any other animal in which there takes place such a thorough process of intestinal digestion, of foodstuff-sublimation as in the cow ? Is not the heavy COW lying on the grass and chewing the cud, a perfect image of 'collectiveness'?

Now every healthy plant, and especially our food plants, must possess these two faculties. the 'longing gaze of the eyelashes' and the 'collecting gesture of the eyebrows'. For the plant must be able to look into the cosmos whence most essential things stream forth for its own benefit, and it must be able to Collect and to accumulate what its immediate surroundings have 2 store for the building of its body. Now can the plant be stimulated to exert these two activities in an appropriate way?

Here then Dr. Steiner comes and discovers where these two faculties are most powerfully displayed in nature. With his one hand he grasps into the world of the plants, and with his other hand he takes hold of certain animal organs, and by bringing them together, he unites what is otherwise distributed in nature among two different kingdoms, yet having one and the same source in the spiritual world. Through getting so closely together, the stag's bladder now works on the flowers of the Yarrow, and the cow's guts on the Chamomile, in such a way that of all the original stuff there just remains the pure force of Longingness on the one hand, and of Collectiveness on the other.

Now let what I have thus described, be your background, when once more reading the Agriculture Course, and you will see that each word in it is a new revelation. If you read properly, you will find that every adjective, every verb, as it is used, is full of meaning. Watch how Dr. Steiner describes the manufacturing of these 'precious little sausages', and so on, and you will see that down to the very gesture of the farmer's hands, something new and wonderful has been

given.

The father of one of our Waldorf pupils, who was a famous opera singer told us once the following story. As a young man, when still learning his profession, he once attended rehearsals for a performance of Wagner's Parzival in Bayreuth. One day the singer of the part of the aged Gurnemanz was ill, and in order to keep the rehearsal going, the conductor, a celebrity of his time, asked the young apprentice to fall in. After the rehearsal, in which our friend seemed to have done his part satisfactorily, the conductor asked him for a personal talk in which he put this question: "Am I right in assuming that you are either a good old Roman Catholic, or else a pupil of Rudolf Steiner?" Highly surprised, the young man replied that, indeed, he was a pupil of Dr. Steiner, but how did the conductor know this? The latter replied that he had watched him taking the holy spear from the hands of Parzival. "People have no sacramental attitude to-day" he said toward material objects. A few may still have it traditionally through their adherence to the Catholic sacraments. One can have it again in a new form only through being a pupil of Rudolf Steiner."

Now study from this aspect the Agriculture Course, and you will realize that what is there taught as the preparation of the home the Chamomile sausages or the Yarrow in the bladder is a new sacramental act with the substances of nature through the farmers' hands.

What we have learnt to realize through our description as the attitude of Longingness and the attitude of Collectiveness in the animal and plant is by no means confined to the living beings in nature. For we even find back these two astral gestures among the very mineral elements of the earth. Dr. Steiner mentions them in the Course. They are Potassium on the one hand, and Calcium on the other. It is, of course, now a marvellously interesting thing for the chemist to study these elements from the point of view of these, their spiritual properties.

You will realize where I have tried to lead you, when you compare the result of our investigation with what I have pointed out in the beginning. As long as man remains blind for the spirit of matter, he finds no way to the understanding of his own spiritual being; and without investigating his own spiritual nature, the reality of matter will remain concealed to him. In our own way of looking at things, guided by Dr. Steiner's advice, we have been able to draw from two fundamental gestures of WILL in the world, and we have been able to pursue them right down from our own psychological experience, via our bodily functions, into the kingdoms of the animals, of the plants and of the mineral substances, You see what this means: you do not only gain satisfaction for your own desire for knowledge, but you attain to new means of practical action right down into the realm of matter, which is beneficial to your fellow human beings. This, indeed, is the Westerner's true spiritual way.

No doubt, you realize that this kind of knowledge cannot be gained without to some degree transforming oneself inwardly. Really what we have done together to-day, is a first

beginning of the Westerner's appropriate practice of Yoga. How did the ancient Yogi practise when he wanted to raise himself to a higher knowledge of the world? He had to change the rhythm of his breathing. As children of the present age, and in our Western bodies. we must not go this way. Our Yoga must not take its start from breathing in order eventually to transform thinking, but it must take the opposite direction. Actually throughout our whole description we have gone through a certain exercise of thought-breathing. For while we were thinking along the lines of what we have called 'Longingness', and while following this thought with our whole inner being, we have passed through an exercise of thought-Exhalation; whilst through pursuing the idea of 'Collectiveness', we have practised thought-Inhalation. However, no such thought-activity, when carried out with full surrender of the soul, can take place without our actual breath accompanying it by the same actions.

Again this you find mentioned in the Agriculture Course, In the same lecture in which Dr. Steiner so significantly speaks about the spirit of the four building stones of the protein substance, he shows to the modern farmer what Meditation may mean to him. Read there in what wonderfully matter-of-fact way Dr. Steiner describes the effect of meditation on your breathing, how when giving ourselves over in Meditation to some spiritual content, we naturally breathe out more gently, not pushing out the air quite so 'bull-like': and how he compares this with the difference between the bumping against an outer object, and the gentle rubbing over it. For whilst our breathing has always an effect on our consciousness, the ordinary exhalation only makes us aware of ourselves, whereas the spiritually refined breathing lets the farmer grow sensitive for the inspiration of the wisdom bearing nitrogen of the atmosphere.

Indeed, Dr. Steiner's Lectures to the Farmers, with their whole Anthroposophical background. ARE the Baghavad Gita of the modern husbandman.

End of Lecture TWO

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LECTURE THREE - DR. E, LEHRS

Evening, 14th October, 1943.

Ladies and Gentlemen,

In my previous lecture I tried to show you what our answer has to be to the Yoga-call from the East. It is an answer which includes also a definite solution of the other problem, that of the Call of Electricity from the West. For we have seen how this answer allows us to dive into the realm of matter, without losing ourselves into the down-pulling forces of matter-bound Will. Today I would like to say something more about this side, again by using quite a concrete example from the Agriculture Course.

I will deal with the all-important concept of Chaos, which Dr. Steiner applies in two significant passages of his lectures. This concept is such an important one, because rightly understanding it and applying it in our daily practice, we counteract a certain highly destructive effect of Electricity.

In my first lecture I have mentioned the discovery of Radium as among the decisive events along the line of Electricity. With this substance a form of matter has become known to man which continuously disintegrates, and, whilst breaking down, issues pure electric energy. It is a most interesting fact that in whatever direction we pursue the electric phenomena, we shall always find them delivering certain ghostly counter-pictures to certain cosmic-spiritual realities. Now here in Radium we are faced with some process of Chaotisation. What otherwise remains concealed before man's investigating eye, seems here to lie open; the very mystery of matter seems to reveal itself. What hitherto had been mere theory, regarding the construction of matter, seems to find its final proof. This is the reason why the findings in connection with Radium have been able to transform the whole modern conception of the world.

What has not been possible to realize along this way, is the fact that there are two entirely different forms of Chaos, the one being the result of Death and Destruction, and the other being the cradle of Life, of Birth and Creation. The latter conception has been re-introduced by Dr. Steiner into man's thinking and doing. Let us see how he speaks of it in his lectures to the farmers.

In the first instance he describes the formation of a daughter-being out of the mother-being. He shows the fallacy in assuming that a seed must be a highly complicated organic structure in order to bring forth a whole new plant. In reality, the material substance, after having been carried into the highest state of complexity in the seed, is completely broken down, as it were, into 'cosmic dust'. A small Chaos is produced in the little seed, and as soon as this chaotic state is achieved, the entire surrounding universe begins to work on the seed and makes its imprint into it. Dr. Steiner shows us that wherever we aim at bringing the Cosmos into action, we must push

earthly formation into the state of Chaos.

The other mentioning of Chaos occurs in connection with the description of the true nature of Hydrogen. This chemical element, being the youngest and therefore the lightest of all, thus forming the very counterpart to Radium, is the great helper for the restoration to the original formless condition of all that has assumed Form on earth. For in all that has form in the realm of matter, Spirit has become physical. There the spirit lives, as it were, in a state of enchantment, from which it must be freed time and again. Hydrogen is the great disenchanter, carrying all things back into the state of Chaos.

I suppose you realize what a different conception of Chaos this is from the ordinary one. We usually speak of chaos when a town has been blitzed, or if a room is untidy. We also might speak of chaos in a human being's mind, if we are met with complete disorder in his thoughts. However, this is not the original meaning of this word. How it has been used, we shall see in the course of this discussion.

Let me now make a general remark concerning the mode of thought we have to apply for our considerations, and in what respect it must differ from the ordinary, so-called scientific mode of thought. For this then will help us to see our endeavour in its correct light. In my first lecture, when speaking about a spiritually inspired study of History, I used the term *READING* for the way in which we have to look at the single historical events as symptoms for what is going on in a higher world behind them. You will have realized that we have done exactly the same thing when studying the Yarrow and Chamomile, and all that is connected with them in the Bio-dynamic practice. We have not side-tracked into any theory or hypothesis regarding atoms or electrons or wave-pockets or the like but we have simply brought together different 'letters' of a 'word' or rather of two words out of Nature's script, and we have endeavoured to read them with appropriate understanding. This you can take as *THE* new scientific method, different from the nowadays common one. Do not think out any intellectual theories, but use our of Sense-perception and thought solely for so arranging the outer phenomena that they become readable, and that through their being read, they reveal their inner meaning.

However, this method is not entirely new. For the first to apply it in modern times has been Goethe, in whose scientific research Dr. Steiner has therefore taken so deep an interest. There have been other 'Readers in the Book of Nature' who remained more or less unknown, and I am particularly happy for having found two outstanding ones in this country. They are John Ruskin and Luke Howard. Something of what these two men have thought and achieved I will bring before you tonight. It is no matter of chance that this has a special bearing on our question of Chaos. Through Luke Howard our thoughts will be led into the realm of the clouds, and there is, indeed, no better approach to the problem of the creative Chaos than through the study of these

meteorological phenomena.

Ruskin, besides his reputation as a writer on the arts (in which capacity he seems to have become somewhat obsolete) belongs to those few human minds at the high tide of the 19th Century materialism who experienced with full vigour the widening split between the scientific (i.e. 'true') and the artistic, (i.e. 'human') world conception. Let us hear what he has to say about this:

"It is in raising us from the first state of inactive reverie to the second of useful thought, that scientific pursuits are to be chiefly praised. But in restraining us at this second stage, and checking the impulses towards higher contemplation, they are to be feared or blamed. They may in certain minds be consistent with such contemplation, but only by an effort; in their nature they are always adverse to it, having a tendency to chill and subdue the feelings, and to resolve all things into atoms and numbers. For most men, an ignorant enjoyment is better than an informed one: it is better to conceive the sky as a blue dome than a dark cavity, and the cloud as a golden throne than a sleety mist. I much question whether any one who knows optics, however religious he may be, can feel in equal degree the pleasure or reverence which an unlettered peasant may feel at the sight of a rainbow".

Ruskin usually takes up the attitude of the artist against the 'philosopher', as in his own time still the scientist used to be called. Yet he was fully alive to the general problem as such, and often shows his concern regarding its social consequences right down into the sphere of practical economy. Through his artistic nature he was able to realize how the scientific outlook was unable to understand Life. In order to grasp the latter, he gives this advice: -

"Always stand by Form against Force! To a painter the essential character of anything is the form of it: and the philosophers cannot touch that. They come and tell you, for instance, that there is as much heat, or motion, or caloric energy in a tea-kettle as in a Gier-eagle .. but we painters, acknowledging the quality and similarity of the kettle and the bird in all scientific respects, attach, for our part, our principle interest to the difference of their forms. For us the primarily cognisable facts in the whole thing are, that the kettle has a spout, and the eagle has a beak; the one a lid on its back, the other a pair of wings - not to speak of the distinction also of volition, which the philosophers may properly call a form, or mode of force; but then to an artist, the form, or mode, is the gist of the business. The kettle chooses to sit still on the hob, the eagle to recline on the air. It is the fact of choice. not the equal degree of temperature in the fulfilment of it, which appears to us the more interesting circumstance."

It is the secret of 'useful thought' that it can cope with what is dead in nature only. Its real usefulness is limited to the sphere of Mechanics. However, with Isaac Newton, science began to

introduce the idea of mere mechanical forces into the explanation of the cosmic happenings. In this way Death was introduced into the explanation of the whole universe. It is most amusing and enlightening to see how a Ruskin deals with this problem. In a lecture which he called "Storm Clouds of the 19th Century", he points to the well-known legend that Newton came on his idea when being struck by an apple falling from an apple tree whilst he was lying under it. All right, says Ruskin, let us suppose this to have been so but then we must still ask what has first brought the apple to the top of the tree? This question, he concludes, Newton has forgotten to answer!

Let us - to speak in Ruskin's manner - always stand by Reading against Explaining, and let us once more go to School and learn to read as we have done in our early days. There is even a primer published for the special use of the beginners in this school, written by Dame Nature herself. It is the script of the Clouds which has infallibly been used by all those who became the great Readers in the Book of Nature. For Ruskin, as well as Goethe and Howard, and in much the same way others have been cloud-minded men. The reason is that while in the more or less fixed forms on the immediate surface of the earth, Nature's script appears as in a printed text, in the heights of the atmosphere she keeps it in the active state of writing. Here forms seem to come out of nothing and to vanish into nothing again, for ever changing. Some recollection of a long past state of creation is here displayed before our very eyes. This is the reason why the study of the clouds has for so many been a source of inspiration.

Let us now see what the clouds have taught a Luke Howard to whom we the first systematic discrimination of their forms, as well as their universally adopted terminology. In the introductory chapter of his Monograph "On the Modification of the clouds", which was published in London London in the year 1803, Howard at once reveals himself as a true "Reader in the Book of Nature."

"If Clouds were the mere result of the condensation of vapour in the masses of the atmosphere which they occupy, if their variations were produced by the movements of the atmosphere alone, then indeed might the study of them be deemed a useless pursuit of shadows. an attempt to describe forms, which being the sport of winds, must be ever varying, and therefore not to be defined...."

He refuses this idea and continues:

"They are subject to certain distinct modifications, produced by the general causes which effect all the variations of the atmosphere; they are commonly as good visible indications of the operations of these causes, as is the countenance of the state of a person's mind or body. It is the frequent observation of the Countenance of the sky, and of its connection with the present and ensuing phenomena that constitutes the ancient and popular meteorology. The want of this branch of knowledge renders the predictions of the

philosopher (who in attending his instruments may be said to examine the pulse of the atmosphere) less generally successful than those of the weather-wise mariner or husbandman".

Luke Howard himself was a trained scientist in the full meaning of his time. For some years he worked as the superintendent of a chemical laboratory in Essex. And yet, quantitative scientist though he was, he had no illusions as to the limitations of the mere measuring, weighing and counting method. It was, on the other hand, clear to him that the value of the results obtained by scientific methods lay in the fact that they could be communicated, whereas the more instinctive knowledge of the "Weather-wise mariner or husbandman" was confined to the latter's personal memory. Therefore he endeavoured to develop a way of observation through which the instinctive capacity, which was in danger of being lost by man. could be raised to the standard of scientific investigation.

To this end he had a special observatory built for his meteorological studies, fitted with windows all round. Only after many years of careful observation he published his results. It had become clear to him that there were altogether four distinctly different formations of clouds. He gave them the following names and brief definitions:

CIRRUS Parallel, flexuous, or diverging fibres, extensible in any and all directions.

CUMULUS Convex or conical heaps, increasing upward from a horizontal base.

STRATUS A widely extended, continuous, horizontal sheet, increasing from below.

NIMBUS The rain cloud.

Howard's discovery has hardly been taken in any other way than for its convenience for practical use; quite differently from the importance we must attach to it, and which was at once seen in its true light by that other great Reader in the Book of Nature, GOETHE

I must refrain from a detailed description of the various appearances of these four formations of the clouds. However let us think for a moment of the massive impression a cumulus cloud can make on us, and yet how gently it keeps its lofty place. Whilst turning into a stratus-like form at the bottom, its summit often opens into fringes and threads, in this way passing over into the state of Cirrus. The Cumulus really is the "cloud of clouds" keeping the most perfect balance between the expanding forces of the heights and the contracting forces of the depths, occupying in this way the middle region between the Cirrus and Stratus.

We see how we are here faced once again with the great polarity underlying all life in the world, namely Expansion and Contraction. There is a highest region dominated by the heavenly forces of expansion, of uplifting and rarefaction. Where this region predominates, the delicate,

feather-like cirrus cloud is formed. Here the cloud becomes most akin to the imponderable elements of Heat and Light.

If, on the other hand, the nether realm prevails, which is dominated by the earthly force of gravity, the cloud drops and widens and is stretched out into the horizontal layer of the Stratus. In this formation we see already indications of the aqueous element of the earth with its horizontal surface.

These are the three different kinds of clouds according to the two polar forces and their interplay in the middle sphere. The fourth formation, the Nimbus, as defined by Howard, seems to disturb the beautiful symmetry of the picture. It is not even a real cloud any more. For here already liquid water is formed in a multitude of little drops which are irresistibly attracted by the gravitational power of the earth. The phenomenon in this way ceases to be a truly atmospheric one.

Howard was not able to get any further. For as a child of his time he could not yet cross, in a scientific way, the Rubicon between the Material into the Immaterial. That he felt something more behind the outer phenomena, he clearly shows through his bold comparison between the meteorological phenomena and the human countenance. However, it is left to us to go that step further which then also allows us to restore the equilibrium in Howard's description of the cloud formations. To this end we must rid ourselves from the materialistic prejudice that the earthly water vaporises only as far as the gaseous state, whence it is supposed to re-condense directly into the liquid form.

The Cosmos does not work in such material shortcircuits. In reality, most of the water becomes entirely dematerialised in a sphere which is situated above the realm of the Cirri. Up there all earthly stuff is transformed into its primeval state, in which it is each time newly endowed with regenerating cosmic forces, on its way back it gradually passes through all the various cloud formations in order finally to appear as the fertilizing rain. We have thus to reckon with two entirely different kinds of Cirri, namely the "outgoing" and the "incoming" ones. It is an interesting item of observation to learn to distinguish the ones from the others.

Our present age has the task to bring to full scientific cognition what men like Howard could not yet clearly express. Yet the knowledge of that uppermost sphere which, as a fifth, borders on that of the Cirri, is an ancient one and has only been lost in the age of "useful thought". Thus when Dr. Steiner chose the term Etheric World for it, he revived a Greek word in its true ancient meaning. For ETHER, actually A_I_TH_EE_R, means that agency of the universe, which is beyond the four elements Earth, Water, Air and Fire, in which there are borne the seeds of all that exists in the physical world. Its proper meaning is "the blazing one" or "the radiantly flaming one". How must this sphere have been beheld by man of old to induce him to give it such a name!

However, the Greeks had still another name for this sphere which they used when they wanted to indicate that in it no distinct forms could be found, in which everything was in the state of potential existence, whence all Life streamed forth upon the earth: It is the word CHAOS with precisely the meaning to which Dr. Steiner has restored it in his agricultural lectures.

The same state of existence is described in the beginning of the Bible, where we read: - "And the earth was without form and void" - the original Hebrew has the term TOHU-WA-BOHU. We now realize that a reflection of that mighty condition of creativeness is still present in our otherwise shaped out world of to-day, being at work in the heavenly womb into which the Cirrus clouds vanish in order to return as fertile rain.

We now understand how we have also to see CHAOS at work in the life-cycle of the plant, and how without passing through this state the plant could never produce a new living seed, When the plant in its flower nearly overcomes all material heaviness. when the volatile substances are produced which are called "essential" oils (also "etheric" oils), when finally the flower bursts into the pollen - then Chaos is prepared, as essential for the plant as for anything living in the world.

In this way the plant becomes an image of that which goes on in the region of the clouds; and the clouds let us see an image of what goes on in the life-cycle of the plant on earth. We now see:

In the "SEED"	the plant's state of	CHAOS
In the "FLOWER "	the plant's state of	CIRRUS
In the "LEAVES "	the plant's state of	CUMULUS
In the "ROOT"	the plant's state of	STRATUS

When Goethe had made himself fully acquainted with the views of Howard he wrote four most beautiful verses on the nature of the four different cloud formations to which he gave as titles, Howard's four terms. I will quote to you two remarkable lines from the verse on Cirrus which clearly show that Goethe knew something of the mysterious transition of physical matter into spiritual essence up there at the border of the greater earth.

"Thus lastly, what below had gently been brought forth, Above flows quietly into the FATHER'S womb and hand."

Perhaps you will now see yourselves where the cross-roads lie to which we have been led by the course of our materialistic civilisation. One can very well understand the startling effect it must have on a farmer when he is told that he has to learn to include "chaos" into his calculations.

But it is here as with all other things in our age: We have brought forth great things in the way of Production, but we have forgotten the importance of Consumption. The modern farmer's daily concern is to produce, to produce, and to produce. And he makes the strongest appeals to Nature as the great producer while overlooking the fact that she must time and again be allowed to consume her own products in order to consummate them. However, precisely here lies the answer to the call that comes from the Radium out of the electric powers of the world. When dead matter has grown so old, as in the case of Radium (for as the heaviest element it is the oldest), that it has overstepped its cosmic life-time, then it begins to disperse into atoms releasing cosmic Will-forces that have been buried for Aeons in the dark grave of matter. With them, something is played into the hands of man which one might truly describe as active Death. Out of her own forces the Earth cannot prevent herself from becoming older and from nearing her final death. Let us not be blind to the fact that every use of her forces of old age, i.e. of her electric forces, through us human beings cannot but speed up this process of dying.

However, there is also close at hand the realm of rejuvenation, and it is left in our age to man himself to re-establish again and again the link between that which lives on the earth and the cosmic well of eternal youth. Through Dr. Steiner's gift to the farmers it is given into the latter's hand not to let the earth go the path of the Radium, i.e. into the Chaos of eternal atomisation, but to spare her this fate through making himself the servant of creative Chaotisation.

End of Lecture Three