

# Science Group of the Anthroposophical Society in Great Britain

## Newsletter – March 2014

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### Meeting Report

#### Fundamental Aspects of Natures Forming

Projective Geometry Seminar 17th - 19th February, at The Field Centre, Nailsworth, Gloucestershire.

This was a really heartening gathering for me, we were 16 or so souls from 5 countries. One could sense the tremendous scientific significance of the steps made by those who initially explored the realm of Projective Geometry in relation to the natural world, especially George Adams and Lawrence Edwards. However not only are there also significant steps being made now but there is still so much potential.

I cannot describe every talk but some highlights for me were the following:

Graham Calderwood's exploration around the issues of human freedom in our forming of the laws of nature, gave much stimulation for thought.

John Blackwood gave two wonderfully illustrated talks laying out a broad spectrum of possible archetypal gestures one can read in nature's language of form.

Nick Thomas made a presentation on the paths of the planets and how elliptical orbits could be seen as lemniscates in another type of space. I found this quite breathtaking, and very good for the mental gymnastics. He also gave a talk on the domes of the first Goetheanum, and another on the role of coupled oscillators in counterspace.

Paul Courtney gave a very well considered exposition of the golden mean in the pentagram / star hexagram. One could sense the human archetype being expressed in a special way.

There was a lively presentation by Pat Toms exploring our varied experiences of spaces and what lives geometrically and geomantically in the spaces.

We had a very good discussion in the round delving into the human beings relationship to mathematics and the conceptual as well as the world of percept. It felt as if every member of the group was fully involved in this research conversation.

It was touching to hear how Florin Secosan from Romania, although quite isolated has been finding his way into projective geometry through the more established discipline of topology, the science of shape, in his two lectures.

It is so good to know of the various streams of work unfolding in various corners of the world, I believe it may not be too long before more practical fruits come out of it too. I am very grateful to all who came, and to Ruskin Mill Trust for hosting us in the Field Centre. There was a universal wish for more regular meetings and it was agreed to meet again in a year probably at the same venue and in the same half term week.

*Simon Charter*

### Meetings/Conferences

#### The Enigma of Potentiation

23-25 May 2014, The Field Centre, Nailsworth, Gloucestershire, UK.

Fourth conference in the *New Perspectives In Science* series about scientific endeavours inspired by anthroposophy. In previous years delegates gathered to hear presenters talk about their various interests and research. This year, by contrast, a single subject has been selected and all delegates and speakers are invited to add their own perspectives on this subject.

This year the subject is potentiation, i.e. the process of developing therapeutic qualities from substances as is done in homeopathy and biodynamic agriculture. We will approach the subject as sleuths trying to understand the mystery by collecting perspectives from varying witnesses – expert or casual.

The conference is supported by the Science Group of the Anthroposophical Society in Great Britain.

*Contact the organisers:* Michael Atherton, Simon Charter and Mark Moodie: conference (at) naturalscience.org.uk. Skype voicemail: 020 7193 4697. Mark Moodie, Oaklands Park, Newnham, Gloucestershire GL14 1EF, UK. More details at:

[www.naturalscience.org.uk/2014](http://www.naturalscience.org.uk/2014).

*Background* Adalbert von Keyserlingk, the son of the family who hosted Rudolf Steiner's agriculture course, recalled a time when Steiner was very animated:

The most wonderful occasion was when Rudolf Steiner came into our classroom, his face alight with joy and said: 'Now at last we are able to demonstrate the etheric, because of Mrs Kolisko's work with very small entities, and we can prove to anyone who wants to see that science can be taken further and can find its way out of the dead end of materialism!' I shall never forget the joy Rudolf Steiner radiated as he said these words.

For those of us who would indeed like to take science further and coax it out of our materialistic cul-de-sac it might appear, from the above quotation, that the work has already been done. However, such smallest entities which result from potentiation remain enigmatic and inscrutable. The whole subject lurks restlessly in the dimly lit border between reputable science and exile in the swampy regions of self-deluded fantasy.

Potentiation is one of these disciplines in which the application of the science precedes the pure or theoretical aspects. As a result bringing light to the subject holds great promise both for its own sake and also for improving its worldly application. For instance, imagine trying to build an aircraft capable of flying for 23 hours a day for 20 years with no grasp of stress and strain, and no means to optimise the Bernoulli principle or to predict which fuel characteristics are best. As a homeopathic pharmacist or biodynamic gardener faced with a hundred vessels of clear liquid, impervious to chemical differentiation, how is one to divine the qualities of each liquid? What tools can one bring to one's R&D department to increase the efficacy of ones products? Are these tools improved by focussing on laboratory sterility, standardisation of materials and processes through mechanisation, the gesture frequency and duration of the potentiation process, the time of day and year ... ??? Or perhaps one would do better to consider the state of the people who are involved in the process. Should this be done in isolation after purification and prayer, or in a jolly group of colleagues? Does it matter if your socks don't

match that day? What are the parameters for making an effective potency?

There may be some clues in the later parts of the recollection quoted above:

He then told us that from the beginning of the fifteenth century people have tried to enter more and more deeply into the dead matter of both the macrocosm and the microcosm, though they had no real aim in this. This had led to the division between belief and knowledge, with the spirit banished to the realm of belief and all things physical to that of soulless knowledge. It ultimately caused many people to be torn apart at the very core of their humanity.

Now, however, a beginning had been made to connect things of the spirit - the etheric being the lowest form of the spiritual - again with physical matter. The conscience of the scientist must also be part of the process. We were able to understand this world situation, both from the matter itself, from the method and the goal, and from the sheer joy in Rudolf Steiner's eyes.

The continuation of the New Perspectives in Science series of gatherings is also a new start. In previous years we concentrated on hearing each other's speciality elucidated. This brought a certain depth into various areas in which Anthroposophically oriented scientists had made forays. The emphasis in this year's gathering will be on being together to contemplate one single if multifaceted enigma. I imagine it like a team of detectives faced with a whodunnit mystery. Everyone is invited to bring different pieces of the puzzle in the middle between us in the hope - one with no guarantee of satisfaction - that a larger picture can become clearer. In this way one would like to think that the enigmatic and inscrutable can be treated as a potent clue that might begin to bear fruit.

There will be some expert witnesses to assist us. Stephan Baumgartner has worked for decades to bring light in these regions with using plants as bioassays with the goal of improving the products from the Hiscia laboratories. But such expertise has been kept to a minimum not only out of necessity, but because the emphasis is on collegial co-researching. I would also like to think that no one would feel excluded because of lack of experience or expertise. If you are stimulated by whodunnits, by the love of mystery and puzzles, by the promise of reintegrating a scientific outcast back into the scientific fold, or by a focussed manufacturing ideal of improving remedies .. all these and more would be very good reasons for joining us in May.

*Mark Moodie*

### UK Group of the Natural Science Section

The Science Section for members of the School of Spiritual Science who are taking responsibility for the scientific work normally meets twice a year in autumn and spring.

There was a Science Section meeting on the 16 February 2014, and we intend to meet again in the autumn. The provisional date for this is 1 November 2014.

If you are interested in attending, but do not normally receive notification of Section meetings, please contact Alex Murrell, 26 Arundel Drive, Rodborough, Stroud, GL5 3SH. Tel: 01453 766484 Email: alexander@murrell (at) hotmail.com.

### Projective Geometry

A small group meets weekly in Brighton, currently on Mondays, to explore the laws of the space underlying physical and living forces.

Please contact Paul Courtney on 01273 557080 or 07903 961390 or at PaulRC (at) btinternet.com for further details.

### Evolving Science

15-19 October 2014, Goetheanum, Switzerland. This is a diary date for a conference on the above theme being planned by the

Science Section of the School of Spiritual Science. Probable themes will be the relation of science to nature, society, the scientific community and anthroposophy. We hope to publish more details of this in the next issue.

## Courses

### At Pishwanton Centre for Goethean Science and Art, East Lothian, Scotland

21-24 March 2014 Goethe's Colour Theory and Beyond. More details of this and other courses are available at [www.pishwanton.org](http://www.pishwanton.org) or from admin (at) pishwanton.com, 01620 810259, Quince Cottage, 4 Baxtersyke, Gifford, East Lothian, Scotland, EH414PL.

### At the Nature Institute, NY, USA

For details see:

<http://www.natureinstitute.org/calendar/index.htm>

*June 29-July 5, 2014:* Reading in the Book of Nature: Enlivening Observation and Thinking Through Plant Study (Public Summer Course).

*July 31-August 3, 2014:* Dynamic Embryology and Morphology. With Dutch embryologist Jaap van der Wal.

Professor van der Wal will explore human prenatal development and show how the shaping of the body (morphogenesis) expresses essential attributes of the development of the human as a being of spirit and matter, of body and mind. He will use the scientific method of phenomenology to create a dynamic and holistic view of the human being. The workshop will be of interest to educators, health care professionals, scientists and anyone seeking a deeper understanding of human development.

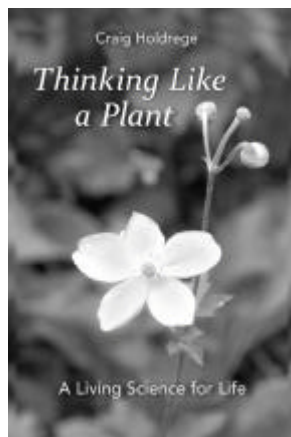
Jaap van der Wal PhD, MD, is a retired teacher of anatomy and embryology at the University of Maastricht, The Netherlands. He has a special passion for human embryology and leads seminars around the world. To learn more about Jaap's work visit his website:

<http://home.unet.nl/walembryo/epinleid.htm>

(See also details of the UK course with Dorian Schmidt after the review of his book on page 5.)

## Reviews

**Thinking like a plant** by *Craig Holdrege*. Lindisfarne Books, ISBN 978-1-58420-143-4, US\$25.00. 217pp.



Craig Holdrege is the director of the Nature Institute (NY, USA) for research and education. His writings are already known to some readers of this Newsletter through the Institute's in-house monthly newsletter edited by Steve Talbott. Courses at the Institute have helped generate material for the book, including the many quotations from course participants throughout.

Despite being already familiar with most of the ideas in this book I enjoyed it from beginning to end.

The title appears to be inspired by Aldo Leopold's essay 'Thinking like a mountain' which was reprinted in his *A Sand County Almanac* (1949). Like Leopold, an acknowledged forerunner of the deep ecology movement, Holdrege too recog-

nises that a fundamental enhancement of our way of thinking is required if we are to have an ecologically sustainable future.

The author argues that what he calls 'object thinking' needs complementing with a living, participative, dichotomy-transcending, holistic thinking. He identifies object thinking with what other writers have named very differently, a few examples of which are intellect, onlooker consciousness, fragmentation, reductionism and positivism.

Holdrege presents plant observation as a medium particularly suited for training living thinking. The approach is largely inspired by J. W. von Goethe, and an interpreter of his scientific approach, Rudolf Steiner. They, together with Jochen Bockemühl, a modern Goethean scientist, are the most cited authors among over 140 referred to in the book.

Chapter 1 characterises objective thinking and its tendency to lose sight of the totality of experience. This is not overcome by systems or complexity theory, which is depicted as a subtle reductionism. What is needed is a thinking that is 'as dynamic, coherent, and as responsive as a living organism'. This activity is best illustrated by a concrete example, the first one chosen being to observe the development of an oak from an acorn, using drawing exercises as an aid to observation (Chapter 2). Opening up perception and perceiving more carefully, free of preconceptions, is cultivated through a 'sauntering of the senses', e.g. during a nature walk, and exact sensorial imagination – recreating a faithful inner picture of what is observed. A more reflexive becoming aware of thinking is practised by observing an unfamiliar, initially unidentifiable object.

In Chapter 3, the field poppy is an aid to teaching transformation and metamorphosis, for example through a leaf developmental series or seeing how all parts of the plant are transformations of leaf, sometimes to the point where 'leafness' is no longer obvious. Plant metaphors for the thinking process occur throughout: rooting is linked to perception, flowering to insightful thought.

How embedded a plant is in its environment, and thus a reflection of it, is illustrated in Chapter 4 with the help of whole plant and leaf silhouettes. Not only is the plant able to respond to conditions with great plasticity, it also contributes as an 'ecosystem engineer' to creating its living conditions. Letting the phenomena have their say leads to what Goethe called a 'delicate empiricism'.

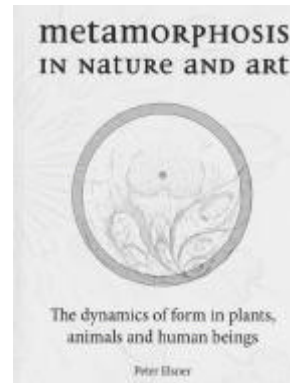
It is all too easy to read chapters 3-4 as an onlooker, but to get the most out of them, i.e. to become a participant, it would be necessary to do the exercises described with actual plants in one's own environment.

Chapter 5 was new material for me: the natural 'story' of the common milkweed (*Asclepias syriaca*). Here in thirty-four pages is an exemplary characterisation of the plant from many angles, including that of the insect life that depends on it. Its unusual method of pollination is particularly fascinating.

The last chapter largely covers Holdrege's ideas on education, which are partly informed by his experiences as a trainer of Waldorf-Steiner teachers, and as a teacher himself. His hope is for a cultural change in thinking. Instead of educating to compete for economic success at home, and with other nations, students could learn from 'genuine presences'. Such a presence could be a plant, fairy stories, art or even educators capable of 'breathing life into schools'. The 1960s cultural change triggered by Rachel Carson's *Silent Spring*, and its revelations regarding DDT in particular, is cited as an example. Sadly, we seem to be making the same mistake once again, only this time with neonicotinoids. More thinking like a plant needed!

David Heaf

**Metamorphosis in nature and art – The dynamics of form in plants, animals and human beings** by Peter Elsner, Hawthorn Press, 2013, ISBN 978-1-907359-24-8, 373 pp., 559 illustrations, h/b, £75.00



This book's price reflects its high quality of presentation, including binding, paper quality and its profusion of photos, drawings and paintings which range from faintly disturbing to very beautiful. Some of the artwork is by the renowned anthroposophical artist Wilhelm Reichert (1926-1982) who gave the impulse for founding the Vienna Goethean Studies Centre where Peter Elsner was initially a student and later a lecturer (1984-1997). Elsner is now at Snellman College, Helsinki.

This book is above all a workbook, as it contains many suggestions for exercises without the execution of which it would be difficult fully to appreciate the processes that the author describes.

The publisher's blurb does not state the book's target readership. Having read it from cover to cover I imagine that it would be especially interesting to people who were not already familiar with Goethe's and Rudolf Steiner's ideas about form in the natural world and human beings. Although the book digs over ground already well tilled by several other anthroposophical authors, it does so in a more artistic way than many of them. Thus it could also be of use to scientists wishing to develop a more imaginative approach to morphology.

Long quotations from other authors, including Steiner, reveal the book's ideological foundations, especially in the introduction which summarises Goethe-Steiner epistemology taken mainly from *The Riddles of Philosophy* and *Theory of Knowledge implicit in Goethe's World Conception*. Regarding the latter, in particular the method it describes for understanding 'organic nature', I found the following passage somewhat ambiguous:

The archetypal form is transformed so that the way in which it develops toward a form of manifestation we find in nature becomes visible stage by stage. The mode of procedure here is metamorphosis – the transformation of one form into another.

In the relevant chapter, Steiner is careful to say that one form is not transformed into another but instead derived from the *type*. Furthermore, Steiner does not use the term 'metamorphosis' in this book. But to his credit Elsner writes that he presents the summaries of Steiner in the hope that people will read the original.

A comprehensive bibliography is provided, but the publisher has not arranged for listing of the English translations of all the books referred to, a job usually undertaken by translators of anthroposophical works. The translation itself seems largely unproblematic, but one issue I stumbled on was in a translation from one of Steiner's medical lectures (GA316). A sphere transforming into a pouch was described as an 'involution'. Though I looked hard at the associated diagrams, I could see nothing that was involuting. So I referred to the original German and found that Steiner used the terms '*ein-stülpen*' and '*Ein-stülpung*', which of course refer to 'invagination', a very different geometry from 'involution'.

A key idea running through the book, especially the first half, is the 'form circle' of Wilhelm Reichert, to whom the book is dedicated, and examples of whose artwork are included. Forms can be pictured as comprising surfaces ranging

from convex through planar to concave, with solid sphere and hollow sphere forming opposite poles. Reichert arranged these forms round Goethe's colour circle and drew analogies between the two: the plane represents green, the solid sphere red and the hollow sphere violet. Goethe saw a '*Steigerung*' taking place as one moves from green towards 'reddish' in either direction. The term '*Steigerung*' also crops up in other Goethean metamorphoses. Translators of his work render it variously as 'intensification', 'heightening', 'progression', 'augmentation', 'deepening' or 'increase', the last three translations of the same German word appearing in a single paragraph of Eastlake's translation of Goethe's *Colour Theory*. Perhaps this diversity of interpretations reflects the difficulty of understanding Goethe's meaning, which could be pictured as the ascent of a spiritual ladder. Whereas it is not so difficult to see a *deepening* in the transition from yellow or light blue to red and to violet respectively (e.g. as the colours get closer to the respective edges of the image of the Newtonian slit, and thus closer to the darkness), seeing it as an *intensification* is not so easy. Yet this term is transferred to Reichert's form circle so that *Steigerung* (intensification) is supposed to culminate in the interlocking of the solid and hollow spheres – seen as two polar forms – through a tumescence and invagination respectively, each simultaneously rotating to unite the two forms in a vortex. This form circle version of intensification seems to me to be even less clear.

Incidentally, the colour circle is shown upside down (p. 37). This appears to be no accident as it concurs with the form/colour circle on the previous page. The result is that, to use Goethe's words (in translation) the most 'beautiful', 'agreeable', 'fascinating', 'excellent' colour, magenta (*purpur*), the 'acme of the whole phenomenon' is placed at the bottom.

The form circle yields three key principles for form metamorphosis: polarity, blending and intensification. In order to further the artistic development of the basic forms, Elsner brings them into movement through the concept of a 'rotating and double-curving plane' (p.52). Because, unlike in other geometric approaches to morphology I can think of, e.g. D'Arcy Thompson's, there are no 'workings out' presented, I had difficulty picturing the rotating and double-curving planes in the many ensuing sketches of natural forms presented. As 'curving planes' is something of an oxymoron, would 'curving surfaces' have been what is really meant?

On page 100 displaying an 'imaginative experiment', resembling a 'doodle' of amazing intricacy we read:

The dynamic images of these image movements can become visible to our inner eye if we configure our will stream with precise imagination, feel our way through it and raise it into consciousness. If we only observe it outwardly, the lawfulness fades into an empty abstract schema.

The snag is that the reader is confronted with many of the drawings as finished objects often unlike anything in the natural world. Whereas living organisms may be studied in their development or evolution, the drawings do not always offer such a step-by-step accessibility.

The next section, of some hundred pages, focuses on plants, beginning with how Goethe arrived at his archetype. The rotating double-curving plane is set aside and processes such as expansion and contraction in plants situated between sun and earth through the seasons are discussed. It is a strikingly different approach from the projective geometric and artistic approaches of George Adams and Olive Whicher whose work also was inspired by Steiner. Five pages from Gerbert Grohmann's *The Plant* develop Rudolf Steiner's idea of the plant being an inversion and transformation of the threefold human being and vice versa.

After a brief section on primitive and primordial animal forms in which the leitmotifs are sympathy and antipathy, there is a 70-page section on the human being, mainly as regards basic osteology and articulation, followed by the three-fold perspective. Various human physiognomies are given a short section, the 'disharmonious' ones among them representing the most disturbing pictures in the book. The last forty pages present a miscellany ranging *inter alia* from constructional projects, to an excerpt from Ernst Michael Kranich's book on plants as pictures of the soul world, to suggestions for art and metamorphosis in the Waldorf school curriculum.

David Heaf

### **Transforming criticisms of anthroposophy and Waldorf education – evolution, race and the quest for global ethics**

by Robert Rose, Centre for Philosophy and Anthroposophy, 2013. 203 pp. PDF downloadable free from [www.anthroweb.info/fileadmin/pdfs/RR\\_Transforming\\_Criticisms.pdf](http://www.anthroweb.info/fileadmin/pdfs/RR_Transforming_Criticisms.pdf)

This book deals primarily with criticisms against Rudolf Steiner's work which allege that it is racist. In complete contrast to many other responses to critics on this issue, in which anthroposophists and anthroposophical institutions have sought to distance themselves to varying degrees from some of Steiner's comments, Rose shows that all of them are ethically and philosophically acceptable by modern standards, provided they are read entirely in context.

In an introductory chapter the author shows that much of the criticism stems from the American academic Peter Staudenmaier, and that several other critics derive their argumentation from him.

The second chapter analyses what criteria an ideology must have in order to be racist. Here Rose refers to modern sociological writings. Racism must be a dogma and not a falsifiable scientific theory that the holder would be willing to discard if further observations falsifying the theory were brought to his attention. It must refer to races that actually exist. It must contain a principle of superiority or supremacy of a particular race or races vis-à-vis others. It must contain a principle of harm, physical or psychological, i.e. that the supposed superior race discriminates against other races. It must be a biological race and not merely a civilisation or a culture, as racism is a biologically deterministic ideology. It must deny individuality and the universally human.

Rose goes on to test against the above criteria all the Steiner texts cited by the critics as evidencing Steiner's racism. In separate chapters on Steiner's view on past, present and future human evolution, all the citations come through the testing without showing any trace of racism. Part of the success of this testing depends on repairing the de-contextualising that was carried out by the critics, primarily Staudenmaier, in making their case. In so many instances, just including a sentence or two before or after the allegedly racist passage shows it in an entirely different light. In some instances the critics are even guilty of false recontextualisation.

But this screening of Steiner texts for potentially negative aspects of Steiner's world view is only half of Rose's contribution to showing how that view not only has no principle of harm, but is in fact permeated through and through with a principle of benefit, as set out in Steiner's writings and lectures throughout his lifetime. By means of ethical individualism, the human being evolves towards the universally human and, through progress, freedom and love, in the far distant future forms a spiritual/moral community. Rose then shows that that such an evolutionary picture is the foundation of anthroposophical initiatives, in particular Waldorf-Steiner education.

I conclude with a quote from Rose himself: 'It is my view that Steiner's views on education and evolution make a significant contribution to positive global ethics and the evolution of a positive future for all peoples of the World: through knowledge of right relationships, love for humanity in feeling and deeds in the will. From his perspective, only then can we "gather together all that can unite mankind in love".' (p. 191).

David Heaf

**Life Forces – Formative Forces: Researching the formative energy of life and growth** by Dorian Schmidt. Translated and edited by David Martin. Hawthorn Press, 2013. 155 pp. ISBN 978-1-907359-33-0, rrp £20.00.



Despite decades of daily meditation I have not experienced even the first glimmerings of the kind of 'imaginings' that Dorian Schmidt presents in his book as resulting from the meditative method which he uses, and describes there. Therefore I am not in a position to tell from his description whether his method is likely to 'work' or not. However, I can at least review what the book contains and share my own experience of it.

The book is divided into three sections: I – the methodology, II – observations in the realm of formative forces in nature, and III – a comparative study of the connection of the methodology with Rudolf Steiner's lecture cycle *Boundaries of Natural Science*.

Section II is a translation of a series of three articles that appeared in the members' news letter section of *Das Goetheanum* in 1998. As it was a report on observations of etheric formative forces, it sparked a lot of interest, in particular, requests to Dorian Schmidt to describe the methodology. What is presented in section I is by no means as easy to follow as, for example, the methods section of a scientific paper. Reaching the comment on page 28 'the exercises described so far', I realised I'd formed no clear picture of any exercises, so I reread it, and indeed had to read section I a third time before a clearer shape began to emerge. Perhaps I can be forgiven for not spotting recognisable exercises at first pass, because on page 131 Schmidt writes 'Many aspects of an exercise cannot be presented in the fullest detail'.

So what *is* his method? I will attempt to summarise it as briefly as possible by piecing it together from the thirty-seven pages of text describing it. The numbers in brackets are page numbers in the book.

Before anything else, Schmidt suggests doing *physical* exercises to increase concentration and will engagement, e.g. leg/arm co-ordination movements (7). These and the artistic exercises for developing new consciousness skills (9) would no doubt continue to be practised in parallel with subsequent meditative work.

The next stage is attaining 'quietude in thinking' (1-2) by draining out ordinary thought processes (21) and reaching a state of 'devotional waiting' (8). It must not be forced, involve focusing on something (e.g. breathing) or be continually monitored (2-3). Eight further conditions need to be met in order to overcome the deficits of the 'usual thinking equipment of a Western civilised person' and to reach quietude in thinking (3). How these conditions are to be met is not discussed.

Then comes self-observation of the process of thinking (5, 9), i.e. of the thought movements or activities themselves (19,

20), during which the self is the guiding principle (6) or solid reference point capable of holding its own ground (32). Mental arithmetic may be used to establish a quiet ordered train of thought (9) while observing the calculation activity (10). This engages feeling and the will: feeling for assessing, for example, correctness (16-18), and the will needed for proceeding with calculations of increasing difficulty (18). In observing thought movement the meditator may ask a variety of questions not usually asked, for example: 'Numbers disappear and others are added: where do they go and where do they come from?'. Observations in thinking may be 'acoustic' or 'optical' (12-13). If optical they occupy an 'inner image space' that generally extends to 30 cm in front of the head (13). An experiment is suggested for probing this 'field of etheric space' (15).

Consciousness is now pulled towards a heightened or new kind of perception (2, 23), one that witnesses the life/etheric/formative forces in thinking (6). Thinking becomes an organ for perceiving them (24). This heightened state enables processing both feeling – recognising beings and their activities – and will activity – involvement in spiritual aspects (7). Etheric force fields are perceived as vivid 'imaginings', not pale 'visualisations' and can be fleeting, scurrying, highly mobile, and luminous (25, 34). These imaginings contain no explanatory content and represent the lowest level of supersensible perception (35).

From the wide range of experiences the method could be applied to, one example is given: observe a living entity or phenomenon with interest, reverence and wonder until one is 'moved and touched' by it, beyond the purely manifest or factual (33). Silence the resulting feelings in order to enter thinking consciousness freed of content, and begin perception of etheric forces and the resulting imaginings (34).

From the somewhat haphazard order of the page numbers in this summary it is clear that I had to jump about somewhat to piece together what, to me, seems to be the logical sequence. It has been pointed out by someone who has participated in several of Dorian Schmidt's workshops that his method may be more accessible in that 'mouth-to-ear' format.

Schmidt begins section II with a brief outline of his method and then recounts observations of formative forces of wheat, rye, Norway spruce, celeriac, and silver fir. He points out that he gives more observations than are observable with the described method alone, e.g. the soul-centred elemental beings behind the formative forces. The forceful formative movement forms or gestures of a plant are fleeting but repeatable. An echo of advice in section I is in the need for the I or self to hold its own among the forces encountered, which are of the same kind as those in ourselves and are reciprocally enhancing. The plant observations are presented as sketches with accompanying text to describe the colours and movements experienced. The author has applied his methodology to plant breeding, e.g. in observing wheat or rye varieties.

I was surprised to find that I was the unacknowledged co-translator of section II. My translation was commissioned by the Biodynamic Association in 2004 for their journal *Star & Furrow* and the first article appeared in issue 102 Spring 2005. All three articles were published by the Association as a booklet. David Martin's revision of my translation is in parts stylistic, though in a few places a definite improvement. Overall, the translation of the book is of high enough quality to be easily readable and is not seriously marred by the dozen or more typographical errors, the most enigmatic of which begins section II.

In Section III, taking up nearly half the book, Schmidt essentially compares his method with the one indicated by Rudolf Steiner in his lecture cycle *The Boundaries of Natural*

*Science*. Whether Schmidt did this on his own initiative or because, given that the method has arisen in the context of anthroposophy, questions have been asked by others as to how much his method accords with Steiner's is not clear. Schmidt divides both methods into nine steps and compares them step by step (Table 4). There is indeed a high degree of similarity and, although the steps of Schmidt's method shown in the comparison do not all seem to fit in with the method that he described in section I, his enlargement of the steps in the ensuing narrative brings the desired completeness. The main difference between the two methods is that Steiner's takes its departure from schooling pure thinking by immersion in the thought sequence of his *Philosophy of Spiritual Activity*.

Section III gives the reader an opportunity not only to revise what he has learnt of the method in section I, but also to find it enhanced by certain nuances arising during the process of comparison with Steiner.

David Heaf

The next course with Dorian Schmidt will be around the weekend of 25th - 27th April 2014. If you are interested in further workshops, being part of a group, or have any questions relating to this work, please contact Sibylle Kort.

Tel: 0117 9148134. Email: elisabethkort (at) yahoo.com

## Publications

**Francis Bacon and Rudolf Steiner** by *Keith Francis*. ~150pp available from the author as a typescript for \$27.

Sections: Historical Perspective; Bacon's Scientific Method; Goethe, Steiner and Modern Science; Bacon and Steiner.

From the author's commentary on the book: "Attempting to consider the situation in the widest possible context, I concluded that while I was a very long way from abandoning my belief in the value of Steiner's insights into the human being, nature, the cosmos and world history, I was under an obligation to record a frank, warts-and-all account of my research—even though I was not at all confident that anyone would ever read it. This is something that I owe to Bacon, to all who have studied Steiner's work on the Chancellor, and to Steiner himself. So I continued with my project, recognizing, like Bacon, that I was biting off more than I could chew and that the process of digestion would probably never come to an end."

Keith Francis, 40 W84th Street Apt. 8B, New York, NY 10024, USA. Email: kfra537 (at) aol.com .

### In Context, The Newsletter of the Nature Institute

**No. 30, Autumn 2013:** Main articles: Shattering the genome, *Stephen L. Talbott*. Rebirth of the Type – Notes on a recent paper by Mark Riegner, *Stephen L. Talbott*. From mechanistic to organismal biology, *E. S. Russell*.

Editor: Steve Talbott. Single copies of *In Context* are available free of charge while the supply lasts. Contact details: The Nature Institute, 20 May Hill Road, Ghent, NY 12075. Tel: +1 518 672-0116. Fax: +1 518 672 4270. Email: info (at) nature-institute.org. Web: <http://natureinstitute.org>. The Nature Institute's online *NetFuture* newsletter is available at <http://netfuture.org>.

### Elemente der Naturwissenschaft

**No. 99, 2013:** Störungs- und Regenerationserscheinungen bei der Biokrystallisation, *François Schweizer*. Plastizität des Blütenbodens und des Fruchtknotens – Unterständigkeit, *Peer Schilperoord*. Reproduzierbarkeit und Variabilität – Polarität, Zusammenklang und Einheit, *Beatrix Waldburger*. Development of a Comprehensive Method for Steigbild Characterization, Analysis and Interpretation, *Susanne Hyldegaard Larsen*, *Jens Laursen*, *Niels Pind*, *Bent Pyskow*.

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### Mathematisch-Physikalisch Korrespondenz

**No. 254, Autumn 2013:** Spinorkoordinaten im hyperbolischen Raum, *Matthias Lerchmüller*. Rauschen und die experimentelle Methode, *Ingrid Hartmann*.

**No. 255, Winter 2013/2014:** Die spezielle Relativitätstheorie und die Wirklichkeit, *Karl-Heinz Niklowitz*. Zum Ordnungsgedanke der Primzahlen, *Gothard Israel*.

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### Wasserzeichen

**Nr. 38 (2013):** Besondere Quellen heute: 1. Die Stutzhofquelle – strömendes Herz des Institutes, *Christine Sutter*. Zur Strömungsphysik im Tropfbild, *Christian Liess*. Angebot Trinkwasseruntersuchungen: eine Ergebnisse, *Manfred Schleyer*. Neue Anwendungen in der Trinkwasserhygiene – die Durchflusszytometrie, *Manfred Schleyer*. Der Meniskus – Ausdruck der Benetzbarkeit von festen Oberflächen, *Andreas Wilkens*.

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## Next Issue

This newsletter is issued to members in March and September each year. Copy for the next issue should reach the editor at the address below by 20th August 2014.

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