

Science Group of the Anthroposophical Society in Great Britain

Newsletter – September 2014

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News

Natural Science activities in Gloucestershire

Natural science activities in Gloucestershire have been thriving during the last year, with many different individuals taking initiatives and carrying the work. There has been regular study of the 'Warmth Course' by Rudolf Steiner; a research project of making rose gold balm as a social activity; the development of an interactive single cavity flowform by a group for the Field Centre and evening classes in projective geometry in Stroud. There have also been several Field Centre workshops with a natural science orientation, running as part of the Masters Course in Practical Skill Therapeutic Education. All these activities are continuing.

Details of ongoing activities and future events from Simon Charter: 01453 755614, [simon.charter \(at\) live.co.uk](mailto:simon.charter@live.co.uk).

Typology resurfaces but in a dynamic form

Under the heading 'Ancestor of the new archetypal biology: Goethe's dynamic typology as a model for contemporary evolutionary developmental biology' Mark Riegner, of Prescott College Arizona, has published an article in the journal *Studies in History and Philosophy of Biological and Biomedical Sciences* (Vol. 44 (2013) 735–744). The following paragraph is the abstract of his paper.

'As understood historically, typological thinking has no place in evolutionary biology since its conceptual framework is viewed as incompatible with population thinking. In this article, I propose that what I describe as dynamic typological thinking has been confused with, and has been overshadowed by, a static form of typological thinking. This conflation results from an inability to grasp dynamic typological thinking due to the overlooked requirement to engage our cognitive activity in an unfamiliar way. Thus, analytical thinking alone is unsuited to comprehend the nature of dynamic typological thinking. Over 200 years ago, J. W. von Goethe, in his *Metamorphosis of Plants* (1790) and other writings, introduced a dynamic form of typological thinking that has been traditionally misunderstood and misrepresented. I describe in detail Goethe's phenomenological methodology and its contemporary value in understanding morphological patterns in living organisms. Furthermore, contrary to the implications of static typological thinking, dynamic typological thinking is perfectly compatible with evolutionary dynamics and, if rightly understood, can contribute significantly to the still emerging field of evolutionary developmental biology (evo–devo).'

Mark, who is a biologist teaching at a small university/college in Arizona, and conducting Goethean research on bird and mammal morphology and evolution, is willing to email a free PDF of his article to anyone interested. His email address is [mriegner \(at\) prescott.edu](mailto:mriegner@prescott.edu).

Meetings

Ideas-Workshop 'Evolving Science 2014' – Shaping Goethean science in relation to nature; in relation to science and society and in relation to anthroposophy.

A conference of the Natural Science Section at the Goetheanum from Wednesday, 15 to Saturday, 18 October 2014.

Our relation to nature: Our involvement with the world of the senses, with the earth, is central to our science. This contributes significantly to culture, including the culture of anthroposophy. How should this involvement take place amidst the current profusion of digital images and global crises (climate, dwindling resources, industrial agriculture)?

Our relation to science and society: Science affects society through its depiction of nature and the human being as well as through the technologies that it produces. In which direction do we want its formative influence on the human being to develop? What challenges should Goethean science pose in the age of large projects such as CERN, genomics, systems biology, nanotechnology etc?

Our relation to Anthroposophy: What is the significance for our work of Rudolf Steiner's many indications and suggestions about the relationship of the world of the senses to that of the spirit? In what way is science helped by meditative work? Furthermore, Rudolf Steiner envisaged the possibility of new social forms determined by the kind of thinking used in science. How does the way we think inform the way we will live together in the future?

Keynote lectures: Metamorphosis and evolution – The history of the 'Glashaus', *Johannes Kühl*. Goethean science in relation to: nature, *Wolter Bos*; science and society, *François Lusseyran*; anthroposophy, *Johannes Wirz*. The programme features three world café sessions and presentations from them as well as two 'inspiration walks' led by *Renatus Derbidge*.

Working groups confirmed so far: *Ruth Richter, Pablo Grassi*: Biological systems or living beings – a discussion about the understanding of life in synthetic biology, ethics, society and Goethean science. *Mathias Rang, Johannes Kühl*: What can students learn from quantum physics? – Questions on the issue of quantum physics at the college level and in upper school.

Markus Buchmann, Christne Sutter: Research on formative forces (Bildekräfteforschung) – Current practices and challenges for the future. *Johannes Wirz, Bernd Rosslenbroich, Nikoloz Tsikolia*: The Potential of Goethean science in the 21st century – Reasons why modern life sciences and Goethean science are approaching each other. *Peer Schilperoord, Katrin Studer*: Proteus and protein – On the archetypal plant. *Torsten Arncken*: Gestures of metals in the taste of salts and in the scent of plant substance. *João Felipe Toni*: Plant morphology in the era of Goethe, in relation to Humboldt, Martius, van Esenbeck – impact for modern science? *Laura Liska*: Nature observation between Goethean science and meditation – how do they go together?

The organisers, Johannes Kühl, Matthias Rang and Johannes Wirz, would greatly appreciate your own proposals in helping complete this list of working groups. Important missing subjects include 'Picture forming methods', 'Anthroposophical pharmaceuticals', 'Science education in the Middle and Upper

School, as well as in Teacher Training'. (Contact address for this: science (at) goetheanum.ch).

Fees: regular price: CHF 120 with meals: CHF 208. Concessions: CHF 80 with meals: CHF 168. Concessions apply for students, schoolchildren, OAPs, the unemployed, those in training, military or civil service and people with disabilities who receive benefits.

Full booking details and a booking form are available from Goetheanum Empfang, Postfach, CH-4143 Dornach
Fax + 41 61 706 4446, Tel. + 41 61 706 4444 email tickets (at) goetheanum.org

UK Group of the 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.

The next meeting will be at Elmfield School on Saturday 15 November, 9.45 am – 4 pm. It will include a free rendering of a Class lesson and several other reports and contributions.

If you are interested in attending, but do not normally receive notification of Section meetings, please contact Simon Charter, Tel: 01453 755614, Email: simon.charter (at) live.co.uk or Alex Murrell, 26 Arundel Drive, Rodborough, Stroud, GL5 3SH. Tel: 01453 766484 Email: alexandermurrell (at) hotmail.com.

Projective Geometry, Gloucestershire

There will be a seminar at the Field Centre in Nailsworth, Gloucestershire, on 16–18 February 2015. Oliver Conradt, Leader of the Mathematical Astronomical Section, will give a presentation on comets and another on projective algebra.

Please contact Simon Charter if you are interested in attending: Tel: 01453 755614, Email: simon.charter (at) live.co.uk.

Projective Geometry, Brighton

A small group meets in Brighton on Mondays at 7.15 pm. during term-time to explore the laws of space created by the physical and living forces of the world we live in.

Please contact Paul Courtney on 07903 961390 or at paulr.courtney (at) live.com for further details.

Potentiation

A second conference around this theme is anticipated for May 2015. Details from Simon Charter: Tel: 01453 755614, Email: simon.charter (at) live.co.uk.

Review

The Scholarly Steiner

Review of Rudolf Steiner, *Schriften über Mystik, Mysterienwesen und Religionsgeschichte*. Volume 5 of *Schriften – Kritische Ausgabe*, edited by Christian Clement, frommann-holzboog Verlag, Stuttgart-Bad Cannstatt, 2013 (in cooperation with Rudolf Steiner Verlag Basel), LXXX + 377 pages, 78 Euros, ISBN 978-3-7728-2635-1.

Overview of the Critical Edition

An exciting new development in Steiner research is currently taking place with regard to the publication of his written works in German. The first volume of a critical edition has appeared, edited by Dr. Christian Clement, associate professor of German studies at the Brigham Young University in the United States, and published by the respected frommann-holzboog publisher in Germany. This publishing house is renowned among others for its long tradition of critical editions and col-

lected works of thinkers such as Jacob Böhme, Johann Valentin Andreae (the author of Rosicrucian texts), F.W.J. Schelling, J.G. Fichte, and G.W.F. Hegel. Considering the philosophical, cultural and spiritual roots of Steiner's thought, it is a perfectly appropriate venue for an edition of his works. Moreover, Dr. David Marc Hoffmann, a leading Nietzsche scholar and head of the Rudolf Steiner Archive and *Gesamtausgabe* (Collected Works) is to be congratulated for his forward-thinking decision in allowing a publishing cooperation between frommann-holzboog and the Rudolf Steiner Verlag. With this editorial undertaking it can now be said that Steiner's written work has finally arrived in the scholarly world.

Christian Clement's critical edition is a natural complement to the existing *Gesamtausgabe* (GA). Whereas the latter was conceived as a reading edition of the final published version of Steiner's writings, the *Kritische Ausgabe* (SKA) builds on this by additionally showing all the textual variations, additions, omissions and modifications carried out by Steiner over the duration of his career. In this respect it is directly in line with Steiner's own intentions. Writing in his autobiography *Mein Lebensgang* (The Course of My Life) in an instalment published 8th March 1925, i.e. a few weeks before his death, Steiner harboured the hope that future readers might examine the different editions of his writings and see that the various changes were a testimony of his desire to attain greater scientific clarity in his presentations: 'And whoever wishes to take the trouble to examine how in the successive editions of my book *Theosophy* I continually recast the chapter on repeated earthly lives, precisely to bring its truths into connection with ideas which can be won from the sense world, will find that I endeavoured to do so by doing justice to the recognized methods of science'.¹

The first published volume of the *Kritische Ausgabe* is actually volume number five of a projected eight-volume edition of Steiner's main published writings from 1884-1910. It contains two of his central texts on religion and mystical/scientific thought which originally appeared in 1901 and 1902: *Die Mystik im Aufgang des neuzeitlichen Geisteslebens* (Mysticism at the Dawn of the Modern Age), and *Das Christentum als mystische Tatsache* (Christianity as Mystical Fact). The contents of volume five (SKA 5; henceforth cited by page number) are as follows: a foreword by the Swiss scholar of mysticism Alois Maria Haas that highlights the intellectual climate at the turn of the nineteenth and twentieth centuries, and correctly draws attention to the continuing inspiration of Nietzsche's *Zarathustra* for Steiner around this time (pp. VII-XXII). This is followed by Christian Clement's excellent and lengthy Introduction in which he outlines the principles of the edition, the Goethean and philosophical origins of Steiner's thought, as well as providing a detailed overview of the structure, content, context and reception of the two texts under consideration and their various printings (pp. XXV-LXXIX). The core of volume 5 is of course Steiner's own two texts on Mysticism and Christianity (pp. 3-230). Especially of note is the hundred-page Appendix that includes a commentary on various passages with extensive references to Steiner's textual sources, citations and his other works (pp. 231-339). The volume concludes with a bibliography, a name index and an index of Bible passages (341-377). The hard-back cover, unobtrusive footnote system, and clear page layout are all attractive and of high quality.

Clement's Approach

The SKA is evidently a labour of careful, exact and extensive work on Clement's part – for which one can only be grateful – and a progressive model for modern scholarly e-

search into the life and work of Rudolf Steiner. Naturally, one does not have to be in agreement with all of Clement's judgments and choices in the introduction and commentary, or with his editorial decisions and principles, and designations as to Steiner's chief textual sources. However, any of these disagreements should be far outweighed by the overwhelming usefulness and quality of the SKA: one can now easily and transparently follow the evolution of Steiner's thought throughout all the various editions of his texts. Although similar isolated attempts had been made in the past for single works such as the *Philosophie der Freiheit* (edited by Kurt Franz David in 1983) and *Theosophie* (edited by Daniel Hartmann in 2004), Clement's scholarly apparatus and cross-textual referencing are superior and more readable, and when it is completed his edition will consist of over fifteen of Steiner's principal writings. The SKA not only greatly facilitates the possibility of examining Steiner's pronouncements such as the scientific basis of his spiritual views and their confirmation in the sense world, but sheds additional light on the working of the man himself. Steiner considered his written texts to be both his most objective and most personal works (cf. GA 28: 443). – Thanks to this new critical edition one can see Steiner's ongoing intellectual efforts to find the most accurate formulations, and it will better resolve contested questions such as Steiner's originality by putting the reader in a position to more directly compare his ideas with those of his contemporaries.

It was an inspired choice to begin the critical edition with these two texts of 1901-1902. As Clement himself remarks, it is exactly Steiner's writings on the history of mystical and religious thought that directly concern many of the current disputes in the scholarship, especially the controversial relation between Steiner's earlier and later thought and the place of Christianity in it (p. XXIX). Clement's overall methodological approach is a balanced one: using the texts themselves he sensibly draws attention to earlier ideas – such as the importance of the Goethean principle of morphology for Steiner – and then points out how certain conceptions reappear in later presentations, as well as signalling other elements which do not (cf. pp. XXXV-XLV). For example, on the one hand he shows how certain compositional motifs and key concepts in Steiner's 1894 *Philosophie der Freiheit* (Philosophy of Freedom) are carried over into the *Mysticism* book of 1901; yet on the other hand there is a radical modification in the language of the later volume. Clement remarks: "Already the Introduction to the [Mysticism] book conceptually corresponds to *The Philosophy of Freedom* of 1894. [...] The terminology is obviously new: What was called 'intuitive thinking' or 'moral phantasy' in 1894, is now termed 'rebirth' or 'resurrection' of the ground of existence in human self-knowledge." (p. XLIII). In other words, there is conceptual and compositional continuity between the two works, but a rupture or change in their terminology.

Two Contested Issues

The *Kritische Ausgabe* shows there are numerous modifications in the different editions of Steiner's texts. However, in the forward to the second 1910 edition of his Christianity book Steiner claimed that nothing "essential" (*Wesentliches*) had been changed from the first to second edition (p. 113). Thus, similar to the case of the second edition of *The Philosophy of Freedom*, readers are asked to decide for themselves what is *essential* or primary in his work, and what is *secondary* or of a peripheral nature. The SKA provides a solid textual basis for determining this and for clarifying many contested issues in Steiner research. For with this edition one can now transparently see what Steiner wrote and did not write, what he modi-

fied, added or omitted in the subsequent editions of his writings. We will briefly provide two examples to illustrate how a critical edition can be of decisive assistance with respect to these questions.

1. *Western or Eastern Theosophy?* When he became secretary of its German section in 1902 Rudolf Steiner became officially attached to the more Eastern inclined Theosophical Society co-founded by Madame Blavatsky. Yet as early as 1899 Steiner had already positively cited another more ancient stream of theosophy: the Western current associated with the seventeenth century German theosophist Jacob Böhme, and then devoted half a chapter to him in his 1901 book on mysticism (pp. 85-89). Hence Clement is surely correct in pointing to the continuing influence of Böhme on Steiner's conception of theosophy (pp. XXXIX-XLV). Despite the engagement with Böhme's theosophical conceptions in Steiner's writings from 1899-1901, contrasted with the conspicuous absence of references to Blavatsky in his published books at this time, and the fact that the title of Böhme's *Morgenröte im Aufgang* (1612) is directly echoed in Steiner's own title *Mystik im Aufgang*, surprisingly little scholarly work has so far been carried out on the theosophical legacy of Böhme in Steiner's thought. Moreover, recent academic research² has convincingly demonstrated that the most fruitful stream in which to locate Steiner's 1902 *Christianity as Mystical Fact* is not the Eastern one found in Annie Besant's 1901 *Esoteric Christianity or the Lesser Mysteries*, but the older Western tradition of Johannine Christianity particularly manifest in the German philosopher Johann Gottlieb Fichte's 1806 book *Anweisung zum seligen Leben* (Path to the Blessed Life).³ This critical edition will therefore be able to further assist in more accurately distinguishing between the Eastern and Western influences and traditions in Steiner's writings.

2. *Uniqueness of the Mystery of Golgotha.* Another controversial topic in Steiner research concerns the centrality and uniqueness of Christianity in his thought. A prominent and prevalent interpretation in the secondary literature contends that Christ and the 'Mystery of Golgotha' only first began to assume central importance in Steiner's worldview in or after 1903, and that he only came to emphasize the uniqueness of this event from 1907 onwards as a result of his disputes with the leadership of the Theosophical Society and their proclamation that Christ had become reincarnated in the young Indian boy Krishnamurti (cf. Clement's discussion of these topics, pp. XXXII-XXXIV, XLV-LVIII, especially LVI). A consequence of this theory is that within the development of Steiner's Christology the vast majority of the 1902 book *Christianity as Mystical Fact* has become greatly diminished in value for many commentators. Yet the first edition, and now the SKA, show that Christianity and the Mystery of Golgotha were in fact central and unique for Steiner already in 1902: "The One, the archetypal mystery, the Christian [mystery], was to take the place of the many mysteries. [...] The cross on Golgotha is the mystery cult of antiquity compressed into a fact. We first encounter this cross in the ancient worldviews; we encounter it as a unique event, which was to be valid for the whole of humanity, at the starting point of Christianity (An die Stelle der vielen Mysterien sollte das Eine, das Urmysterium, das christliche, treten [...] Das Kreuz auf Golgotha ist der in eine Thatsache zusammengesetzte Mysterienkult des Altertums. Dieses Kreuz begegnet uns zuerst in den alten Weltanschauungen; es begegnet uns als einmaliges Ereignis, das für die ganze Menschheit gelten soll, am Ausgangspunkte des Christentums)." (first 1902 edition⁴, pp. 115, 134; cf. SKA 5, pp. 205, 221-222). The burden of proof is obviously on supporters of the above widespread interpretation to now demon-

strate how the historical event of the Mystery of Golgotha was not unique for Steiner already in this 1902 text.

Conclusion

On account of the *Kritische Ausgabe*, its editor and the Rudolf Steiner Verlag have been subjected to a number of highly disgraceful personal attacks. However, as we saw in our opening words above, Steiner himself firmly believed that a comparison of the different editions of his texts would not be an assault on his integrity, or show that he had changed his worldview and tried to cover up his sources, but precisely the opposite: it would further reveal his lifelong commitment to scientific methodology by demonstrating how his ideas harmonize with the phenomena of the sense world.

One of the most laudable benefits of Clement's new critical edition – and one that cannot be matched by any other existing edition – is that by providing a reliable textual basis for all the changes in the different editions of Steiner's writings it should not only help in determining what is primary and essential in them, but greatly assist in clarifying many contested issues in Steiner's worldview. Some of these include: the place and nature of his Christianity, the legacy in his thought of the Western theosophy of Jacob Böhme, the question of continuity and rupture between his earlier and later publications, and his precise debts to Goethe and German idealism.

Although one does not have to agree with all of Christian Clement's editorial judgements and decisions, there is no doubt that the SKA is a significant publishing milestone for which its editor and the publishers frommann-holzboog and Rudolf Steiner Verlag have set an extremely high standard. One hopes that this edition will further encourage close textual, historical and scientific studies of Rudolf Steiner's written works.

Notes

1. R. Steiner, *Mein Lebensgang* (GA 28: 434). All translations from the various German texts are by the reviewer.
2. Cf. Hartmut Traub, *Philosophie und Anthroposophie. Die philosophische Weltanschauung Rudolf Steiners – Grundlegung und Kritik* (Stuttgart: Verlag W. Kohlhammer, 2011), especially pages 908-973.
3. On the innovativeness of Steiner's Johannine reading of Christianity, see my review-essay: "On the Spirit and Letter of Rudolf Steiner's Philosophy: A Critical Reading of Hartmut Traub's *Philosophie und Anthroposophie*" in the open access journal *RoSE: Research on Steiner Education*, July 2013, Vol. 4, No. 1, pp. 181-201.
4. *Das Christentum als mystische Tatsache* von Dr. Rudolf Steiner (Berlin: Verlag von C.A. Schwetschke und Sohn, 1902).

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Publications

In Context, The Newsletter of the Nature Institute

No. 30, Fall 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* (originally published 1930).

No. 31 Spring 2014: On weeds, milkweed and Monarchs (from 'Unintended effects of genetic manipulation' website nontarget.org). Goethe and the evolution of science, *Craig Holdrege*.

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) natureinstitute.org. Web:

<http://natureinstitute.org>. The Nature Institute's online *NetFuture* newsletter is available at <http://netfuture.org>.

Elemente der Naturwissenschaft

No. 100, 2014: Agroforstwirtschaft als ökologisch, ökonomisch und sozial nachhaltige Landnutzungsform: Fallbeispiel Kakao-anbau in Bolivien, *Johanna Jacobi, Monika Schneider, Stephan Rist*. Einbindung oder Sonderstellung des Menschen? *Andreas Suchantke*. Eine neue Sicht der Vererbungserscheinungen, *Jochen Bockemühl*. Archäopteryx lithographica - eine Mosaikform? *Wolfgang Schad*. 'Living Machines' und die Synthetische Biologie – Ein Kommentar, *Pablo R. Grassi*. Being on Earth – Auf der Erde sein, *Georg Maier*. Licht und Stoff, *Mario Howald-Haller*. 'Ein Muster..., wie man physikalische Forschung behandeln soll...' Eine Betrachtung zum 'goetheanistischen' Vorgehen in der Physik am Beispiel der Farbenlehre Goethes. *Matthias Rang, Johannes Kühn*.

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A list of the contents of back issues is available at <http://www.sciencegroup.org.uk/elemindx.htm>.

Mathematisch-Physikalisch Korrespondenz

No. 256, Spring 2014: Das Higgs-Boson und der Gegenraum, *Peter Gschwind*.

No. 257, Summer 2014: Geometry, kinematics and rigid body mechanics in Cayley-Klein geometries, *Charles Gunn*.

Subscriptions are SFr 50/€30 per year.

Edited by Prof. Dr. Peter Gschwind, Mathematisch-Physicalisches Institut, Benedikt Hugiweg 18, CH-4143 Dornach, Switzerland. Tel: +41 61 701 5968. Email: p.p.gschwind (at) intergga.ch.

Wasserzeichen – now in colour!

Nr. 39 (2014): Besondere Quellen heute: Die Odilienquelle – dem Berg der schützenden Patronin des Elsass entspringend, *Christine Sutter*. Der Biofilm: Ein neue Sichtweise setzt sich durch! *Eckhart Hirsch*. Pulsierende Schlauch, *Michel Jacobi, Felix Hediger*.

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Membership

The Group has 43 subscribers. The membership subscription is £5 (UK), £6 (Europe) or £7 (elsewhere).

Members who do not subscribe by direct payments from their bank receive one reminder of a due subscription.

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 February 2015.

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