

Science Group of the Anthroposophical Society in Great Britain

Newsletter – March 2007

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News

New journal: *Jupiter*

The first issue of this new journal is dated September 2006 and was received in December. *Jupiter's* aims and scope include contributions and correspondence in German or English on the subjects of astronomy, mathematics and anthroposophy. The spectrum of the contributions is intended to be wide. It includes fundamental, applied and pedagogical articles, but also artistically designed contributions, reports, appraisals, book reviews and letters to the editor. In order to complement one another, the contributions on mathematics in *Jupiter* are co-ordinated with the editor of the journal *Mathematisch-Physikalische Korrespondenz* (ISSN 1661-0563). *Jupiter* is edited by Oliver Conrath, Section for Mathematics and Astronomy, Goetheanum, Switzerland and appears twice a year in spring and in autumn. More details including current contents are given in the Publications section below.

Reviewers sought

We have received two publications which merit reviewing in this Newsletter.

The first is *Aether* produced by Michael Finesilver and published by Pathway (Initiatives) Ltd. It is primarily a CD ROM of interviews and commentary blended with music and comes complete with a 222-page book containing the transcript. The interviews cover among other things esoteric, biological, physical, medical and ecological perspectives on aether. Contributors include *inter alia* Brian Goodwin, Nick Thomas, John Wilkes, Arthur Zajonc and Margaret Colquhoun. To do justice to the publication the reviewer should have a knowledge of the etheric and access to a device that can play audio MP3 files supplied on a CD-ROM. More details are in the Publications section.

The second publication is *Viktor Schauberg – A life of learning from nature* by Jane Cobbald (Floris Books, 2006, £9.99). To put the book properly in context of other books on Schauberg, the reviewer should ideally be already familiar with his work. A background in etheric technology may also be useful.

If you would like to volunteer for either of these reviews please contact the editor who will send you your copy of the publication concerned.

Anthro-Tech Institute

The winter 2006 issue of *Anthro-Tech News* reports that concrete progress has been made towards the creation of moral technology using the triple spin produced by the *Harmogyra*, a resonant system conceived by Paul Emberson that is capable of being tuned to impulses arising in the human soul and is

governed by musical laws such as chords. It arouses powerful sensations and feelings in onlookers and creates a field of etheric forces similar to those in the human being, connecting with etheric soul-forces in the observer.

Anthro-Tech continues to give attention to the damaging effect of artificial electromagnetic radiation (cellphones, computers, wifi, internet etc.) on humanity, especially on the power of thinking, a problem that Rudolf Steiner drew attention to long ago before this source of radiation had proliferated to the degree it has today. According to the personal experience of *Anthro-Tech News'* anonymous writer on this matter, when he or she work for several hours at a stretch over several days inside the Faraday cage at Anthro-Tech Institute in Switzerland his or her thinking changes and begins to comprehend the spiritual meaning of Rudolf Steiner's words, i.e. meditation acquires a different quality. So the problem appears to be reversible. *Anthro-Tech News* describes the Internet as inherently evil because it is based on binary and square-wave bursts. It can be a vehicle for only ahrimanic and luciferic impulses. For example, Ahriman takes possession of Steiner's work on the Internet.

Another project at the Institute is to expose how computers really work. This has included historical archive research in France by Hugh Whistler and building a large scale model of the central processing unit (CPU) so that professionals and novices in the technology alike can see for the first time what is actually being done by a CPU.

Anthro-Tech News is the official newsletter of the Anthro-Tech Institute. It is published in English, French and German about once a year. Editor: Paul Emberson. Contact: Anthro-Tech News, CH-1669 Les Sciernes-d'Albeuve, Switzerland. Fax: +41 26 928 22 24.

Reviews

Mathematics in Space and Time by John Blackwood (Floris Books, £12.99, ISBN-10 0-86315-560-x)

In another book in Floris' *Waldorf Education Resources Series*, the author focuses this time on the mathematical work of boys and girls in class 8 in Waldorf schools, i.e. about 14 years old. The first half of the book is mainly concerned with the five Platonic solids and the second half with many kinds of rhythms and cycles. Photographs of pupils' work adorn the text and bear record to their enthusiasm and wonder in what their teacher has introduced to them, for example the dodecahedron whose 12 vertices lie at the centres of 12 triangular faces of a regular icosahedron, shown on the book's cover.

It would be erroneous to regard the book as an example of a text book of the ordinary kind produced for schools whose pupils are confined to pursuing a strict path of acquiring knowledge and skill through moving from fundamental assumptions towards greater complexity. Indeed, the direction of development is almost opposite. Starting from a holistic phenomenon which calls upon an artistic sense; it is only later that the primary details and assumptions can be apprehended and applied.

The best teachers are those whose first lesson in a new subject begins by their giving a wide review of the possibilities contained in that subject, followed by the pupils expressing the

directions in which their interest could lie – a conversation to which all can contribute. For example, a history teacher may have to describe the conflict of Martin Luther with the Pope. So next day he could begin with Martin Luther as a person, his human qualities, ideas and ideals, encouraging the pupils to revere and champion this individual and to regard the Pope as an evil-smelling tyrant. Next day the teacher could describe the Pope, a fine leader of his church, his different but fine personal attributes and so on, so that the views of many of the pupils take an opposite side in the dispute, almost to standing up and swapping physical blows. Written exercises will subsequently show real feelings and thoughts, they won't be in the least boring. A period on the geography of South America will lead one boy to contrast equatorial forests with the semi-desert of Patagonia whilst a girl might show how dresses fashioned with alpaca wool in Chile are so different from those using reeds in Mato Grosso.

If the class has had a proper education prior to puberty, they will have learnt the skill of plasticine, and later, clay modelling, can shape wood and stone, even glass. Modelling comes before drawing, but the flat exact shapes can emerge from the ruler and compasses work practised in class 6. The astronomer Johannes Kepler showed how to arrange a set of the five Platonic solids with the same centre so as to copy their spaces in accordance with the sizes of the corresponding planetary spheres. It is a remarkably accurate comparison – again evoking wonder in those who measure and construct them. In a very real way, Plato showed how the forms of the five solids corresponded to the qualities of the four elements, the dodecahedron corresponding to the fifth element of ether.

Much angle calculation and also the theorem of Pythagoras can be explored. New shapes like bowls and saddles can be introduced indicating relationships with leaves of trees. Nets of the five solids can be formed. It can be shown that a crystal of iron pyrites has *not* got the shape of a regular dodecahedron. So much more can be investigated in the subject.

"In everything living there is some kind of rhythm" – so the author introduces the second part of his book in which time rather than space is the stage. With rhythm comes repetition. Repeating the path traced out by a pencil round a circle, the ratio of the circumference to diameter is found to be constant. How Archimedes and others investigated this constant is described, leading finally to $p = 3.141592\dots$ and several ways of confirming the value, such as $2 \times (2 \times 2 \times 4 \times 4 \times 6 \times 6\dots)/(1 \times 3 \times 3 \times 5 \times 5 \times 7)\dots$ or $4 \times (1 - 1/3 + 1/5 - 1/7 + 1/9 + \dots)$.

Further rhythms in astronomy are found to be related to human rhythms. The number of breaths one takes in a day = the number of days in a life of 72 years = the number of years in a Platonic cycle = 25,920.

That the author has researched his subject thoroughly is confirmed by the bibliography at the end of the book. Because we are all different individuals, we pick on different facts during our researches. Yet the resulting truths point to deeper common truths. So we should hope for the same in the souls and spirits of our pupils.

Ron Jarman

Meetings/Conferences

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 has been meeting twice a year in autumn and spring.

The next meeting is on 3 March 2007 at Elmfield School, Stourbridge, 10 am. – 4 pm. Programme: free rendering based

on lesson 17 (10.15). Relation to the Mathematics Section. Planning a meeting with Johannes Kühl and members in Scotland and the North. Establishing a working group on the karma of prominent individuals in science. Further discussion on inheritance and phenomenology.

If you are interested in attending, but do not normally receive notification of section meetings, please contact Simon Charter, Juniper Cottage, Ludlow Green, Ruscombe, GL6 6DQ. Tel: 01453 755614. Email: simon (at) ebbandflow.fslife.co.uk.

Science Research Group

There will be a meeting for members of the Research Group on Saturday 24th March 2007 at 2.30 pm. and Sunday 25th March from 9.15 am. to 12.30 pm. at Ruskin Mill, Nailsworth, near Stroud.

Saturday: 1. a) Schumann resonance. b) Demonstration of the Phil Callahan P.C.S.M. (meter) for measuring paramagnetism in the soil, etc. Presenters: Desmond Cumberland and Henry Goulden. 2. Drawing a harmonic lemniscate (Lissajou figure) with reference to the orbits of the sun and earth. Presenter: Paul Courtney. 3. Report on latest research into potentiated preparations, peppering and planting by the stars. Presenter: Mark Moodie.

Sunday: Continuing discussion on the feasibility of establishing a centre for natural scientific research and the aims of the group and its members. Other contributions invited.

For further information about the meeting and/or joining the Research Group, please contact Henry Goulden, The Chapel, Treligga, Delabole, Cornwall, PL33 9EE, Tel. 01840 212728.

The Vulcan Mysteries and Moral Technology

3–9 November, An-Tobar Arts Centre, Tobermory, Isle of Mull, Scotland. In English. Details from: Philippe Rigal, at Anthro-Tech Institute, Tobermory. Tel: 01688 302532.

Publications

Archetype

Issue 12, September 2006

- The buttercup family through the course of the year – interrelationships between plant phenology and basic questions in evolution, *Jürgen Momsen*.
- The conifer type – steps in the development of an imaginative understanding of trees, *Jan Albert Rispens*.
- The conifer cone, *Jan Albert Rispens*.

60 pages. A5 format. Price: £4.50 per copy including UK postage (overseas postage: Europe add £0.50, elsewhere add £1.00). We are grateful to Lynda Hepburn for her excellent translation of all three papers in this issue.

Orders to: David Heaf, Hafan, Cae Llwyd, Llanystumdwy, Gwynedd, LL52 0SG, UK. Tel/Fax: +44 (0)1766 523181

Email: 101622.2773 (at) Compuserve.Com

Four payment options: 1) by cheque drawn on a UK bank; 2) by UK banknotes/coinage (sent at the buyer's risk); 3) by cheque in non-UK currency (including €); 4) by UK or Non-UK banknotes (sent at the buyer's risk). If sending *non-UK banknotes*, please add the equivalent of £3.00 to cover our bank's exchange commission.

Cheques should be made payable to 'Science Group – AS in GB' Please refer to published currency exchange rates applicable at time of order. All back issues are still available – for contents/prices of back issues please see: <http://www.science.anth.org.uk/archetype.htm> or enquire at the above address for details.

Jupiter – Astronomy, Mathematics and Anthroposophy

Volume 1(1), September 2006: Jupiter und die Sonne, *Liesbeth Bisterbosch*. Mosers Folge, *Sebastian von Verschuer*. Von der Polarität des Spiegeindigen und des Kreisenden, *Uwe Hansen*. Mathematik und Religion, *Interview mit Gerhard Kowol*. Projective Geometry Group in Cape Town, *Briar Pastoll*. Olive Whicher – Memories, *Olive Whicher*. Begegnungen mit Olive Whicher, *Ernst Schubert*. Olive Whicher am Arzte-Seminar, *Rosselke Zech*. Erste Begegnung mit Rudolf Steiner, *Elisabeth Vreede*. 56pp.

Editor-in-Chief: Oliver Conradt, Section for Mathematics and Astronomy, Goetheanum, Postfach. CH-4143 Dornach/Switzerland. Tel: +41 (0)61 7064220, Fax: +41 (0)61 7064223, Email: mas (at) goetheanum.org.

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Aether

Produced by Michael Finesilver; published by Pathway Initiatives, 2006. ISBN: 1-900034-10-7. More details from Michael Finesilver at mif (at) gotadsl.co.uk or www.aetheraware.org. (reviewer sought, please see page 1)

The Physics of Human Experience

By Stephen Edelglass. Lectures and an essay. Edited and with a biographical introduction by John Barnes; 135 pages, paperback, \$14.95; ISBN 0-932776-34-5; Adonis Press, 2006. www.adonispress.org.

Contents include: Biographical Introduction; Empowering Students through Science Education; Isaac Newton and the Chickens; Physics and Reality; What is Matter?; Light as Activity; Model-Free Cognition.

Publisher's summary: In its search for causal explanations, modern science has increasingly come to focus on particles, genes, and other hypothetical elements that lie beyond direct human experience. This reductionist approach has led to powerful new technologies, but it has failed to give us an understanding of nature as we can actually experience it in its richness and depth.

Stephen Edelglass entered MIT at sixteen and began teaching physics at Cooper Union at age twenty-two. Because of his deep connection with the arts and with nature, he increasingly felt the dichotomy between his vibrant experience of nature and the abstract world of theoretical physics. At thirty-seven he met Rudolf Steiner's philosophy, Waldorf education, and a new phenomenological approach to science that satisfied him both as a keen, appreciative observer and as a thinker. He gave up his position as a university professor, began teaching high school physics using an experiential approach, and became a prime-mover in the development of phenomenological science in North America.

Goethe's Science of Living Form – The Artistic Stages

By Nigel Hoffmann. 173 pages; paperback; \$25; ISBN 0-932776-35-3; Adonis Press 2007. www.adonispress.org.

Contents include: Art and the Emergence of an Authentic Organic Science; Goethe and the Phenomenological Method; Toward an Authentic Method in the Life Sciences; A Goethean Methodology through the Elemental Modes; Earth Cognition – Physical Thinking – the Mechanical; Water Cognition – Imagination – the Sculptural; Air Cognition – Inspiration – the Musical; Fire Cognition – Intuition – the Poetical; Evolution as Creative Process; The Landscape and its Organs; The Human Being and the Evolution of Landscape; The Yabby Ponds: A Goethean Study of Place.

Publisher's summary: In this groundbreaking book, Nigel Hoffmann shows that understanding the dynamic, living qualities of nature requires artistic capacities. He distinguishes four stages of scientific inquiry that correspond to the four classical elements of Earth, Water, Air, and Fire. Modern analytical science with its causal thinking can be characterized as an Earth mode of cognition. A dynamic approach that follows transformation over time requires a sculptural sense of form and corresponds to the element of Water. The stages of Air and Fire engage yet more vital aspects of nature through musical and poetic capacities.

Combining scholarly-scientific acuity with artistic insight, Hoffmann first characterizes these four different ways of knowing. He then applies them, leading us ever more deeply into the dynamic qualities of specific plants, animals, and the landscape they live in. In doing so, he demonstrates how this four-step methodology provides a comprehensive framework for the life sciences.

This beautifully illustrated book will appeal to all who are interested in gaining deeper insights into nature.

In Context – The Newsletter of the Nature Institute

No. 16, Fall 2006: As well as short items of news, reviews and comment, the publication carries the following articles: Light and objects, *Martin Wagenschein*; Direct experience, *Ronald Brady* (an excerpt from the opening chapter of *Being on earth: practice in tending the appearances* by Georg Maier, Ronald Brady & Stephen Edelglass – full text at <http://natureinstitute.org/txt/gm/boe>); The other end of the cow, *Judith Madey*; Can we see with fresh eyes? – beyond a culture of abstraction, *Craig Holdrege* (an essay to appear as a chapter in *In defense of ignorance: prospects for a new world view*, Bill Vitek & Wes Jackson, eds., University of Kentucky Press).

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: www.natureinstitute.org.

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

Elemente der Naturwissenschaft

No. 85, 2006: Vorstudien zur Geschichte und Zucht der Haustiere. Zunächst am Schweineschädel, *Hermann von Nathusius & Florian Leiber*. Vergleichende Tropfbild-Versuchsreihen als Instrument der Urteilsbildung, *Andreas Wilkens*. Bildoptimum und Bildtypen im Rundfilterchromatogramm (Chroma) bei der Untersuchung von Pflanzen, *Uwe Geier & Lothar Seitz*. Entwickeln von Referenzreihen im Versuch – Instrument einer auf die Beziehung von Probe und Kontext ausgerichteten Erkenntnishaltung, *Beatrix Waldburger*. Das Verfahren der Biokristallisation und das Konzept

der Selbstorganisation. *Nicolaas Busscher, Johannes Kahl, Jens-Otto Andersen, Machteld Huber, Gaby Merghardt & Angelika Ploeger*. Validierung als Instrument für die Lehr- und Lernbarkeit der Bildschaffenden Methoden, *Johannes Kahl, Nicolaas Busscher & Angelika Ploeger*. Visuelle Panel-Beurteilung von Kristallisationsbildern, *Machteld Huber*. Computerised texture image analysis of biocrystallisation images, *Jens-Otto Andersen*. How fundamental is Goethe's fundamental phenomenon of colour? *P. P. Veugelers*.

Editorial board: Johannes Wirz (editor-in-chief), Birgit Althaler (editorial assistant), Haijo Knijpenga, Johannes Kühn, Barbara Schmocker.

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Orders for back/single issues to: Naturwissenschaftliche Sektion am Goetheanum, Elemente der Naturwissenschaft, Postfach, CH-4143 Dornach 1, Switzerland. Tel. +41 61 706 4210. Fax +41 61 706 4215.

Email: science (at) goetheanum.ch.

Cost: Annual subscription (2 issues, including postage): €20.- / CHF 32.-. Single issues: €12.- / CHF 18.- ISSN 0422-9630.

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

Mathematisch-Physikalisch Korrespondenz

No. 226, Autumn 2006: Die heisenbergsche Unschärferelation und Rauschen als Grenzphänomen, *Ingrid Hartmann*. Symmetric partitioning of the projective line, *Lou de Boer*. Lenz's law and the immunity against external social and physical pressures, *Zdenek Kalva*. Selected topics in three-dimensional synthetic projective geometry, Chapter 4: Surfaces of the second degree in three-dimensional projective space, *Renatus Ziegler*.

No. 227, Winter 2006/7: Die Bedeutung der Dynamik zum Verständnis der Relativitätstheorie, *Karl-Heinz Niklowitz*. Bemerkungen zum obigen Aufsatz, *Peter Gschwind*. Können geometrische Elemente operational definiert werden? *C. Scheidegger*. Selected topics in three-dimensional synthetic projective geometry, Chapter 5: Involutory collineations and polarities in three-dimensional projective space, *Renatus Ziegler*.

Subscriptions are SFr 50/€30 per year.

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

Issues 1 to the current issue of this journal are now available on a searchable CD-ROM for 100 €/ 50 SFr.

Wasserzeichen

Nr. 25 (2006): News items: Gedanken zur 'Lebendigkeit' des Wassers, *Michael Jacobi*. Kommt das Leben aus dem Wasser? (symposium report) *Maarten Gast*. Die Umsetzung der europäischen Wasserrahmenrichtlinie kann den Gewässerschutz gefährden, *Klaus Lindner*. Research: Mineralwasser – Wie Flaschen ihren Inhalt beeinflussen (part 2 and conclusion), *Wolfram Schwenk*. Wassertropfen (part 1), *Andreas Wilkens*.

In addition to the articles in this in-house magazine, its 67 pages have many shorter contributions including items on the Flow Research Institute's work, conferences and publications. Price €3.00 per issue. Free to sponsors.

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Email: sekretariat (at) stroemungsinstitut.de.

Internet: www.stroemungsinstitut.de.

Treasurer's Report

Accounts summary for 2006: Income £587.53 (Subscriptions, £354.00; *Archetype*, £195.95; Other, £37.58). Expenditure £397.70. Balance at 31.12.06: £2,206.14.

Membership

The Group has 73 subscribers. The membership subscription is £5 (UK), £6 (Europe) or £7 (elsewhere).

Next Issue

This newsletter is issued to members in March and September each year. Items are written by the editor unless otherwise stated. Copy for the next issue should reach the editor at the address below by 20th August 2007.

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