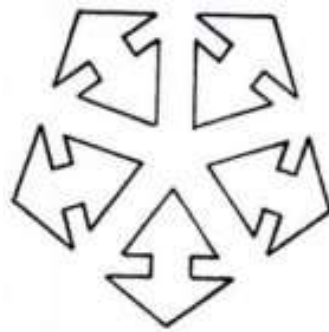


**A
BACKPACKER'S JOURNEY
INTO THE
TEACHINGS**

OF

**RUDOLF STEINER
(1861-1925)**



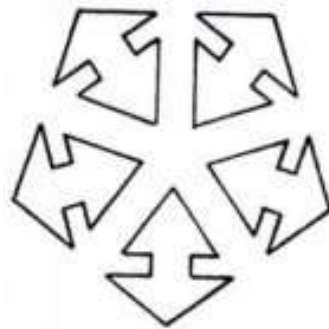
MARK OLIVER SMITH

8 September 2022

**A
BACKPACKER'S JOURNEY
INTO THE
TEACHINGS**

OF

**RUDOLF STEINER
(1861-1925)**



MARK OLIVER SMITH

Man must not only be studied merely according to logic, but according to a reason only acquired when intellectual perception has passed over into artistic perception.

Man as Symphony of the Creative Word



RUDOLF STEINER

'Rudolf Steiner (1861 – 1925) was one of the most extraordinary figures of the last two centuries. A great spiritual philosopher, visionary thinker, and teacher, he was also eminently practical and farsighted.' His research and initiative resulted in 'the Waldorf School movement, the bio-dynamic agricultural movement, the Camphill movement, an Holistic Medical Impulse and a creative art form know as Eurythmy' (to name a few of his social creations).

(Précis is from Christopher Bamford's *'Introduction to Isis Mary Sophia'*)

**Dedicated
to my son
Milton**

‘No one can understand that in the butterfly there is the nature and the quality of a flower raised into the air by light and cosmic forces, unless he can also transform his abstract thoughts with artistic mobility.’

‘The greatest of all artists is at work within the Cosmos. Everything in it is constructed according to laws that profoundly satisfy the artistic sense.’

Rudolf Steiner

24 June 2005 to
21 November 2012
And Jan - April 2015

Dear Milton,

On the 4 March 1998, I completed the first edition of '*A Backpacker's Journey into the Teachings of Rudolf Steiner (1861 – 1925)*'. At that time it was entitled: '*An Introduction to the Teachings of Rudolf Steiner (1861 – 1925)*'. I dedicated the first edition to my daughter Amanda. All subsequent editions were introduced by a letter to my son Milton.

The first edition only contained 16 sections. I explained to Amanda that my purpose in writing the small volume was 'purely to clarify my own thoughts about the teachings of one of the most astounding personages of the 20th century'. I reasoned that if you could not write about a subject the chances were that you did not have a hold on the subject matter.

On the 24th June 2005 I had produced a second edition. This now had 21 sections. Over the years I have enlarged the scope of my writings. This final extension now contains 33 sections. Both the title and contents have changed. Many of the sections have been enlarged and/or modified. It has certainly been 'a work in progress'. I am now even more conscious of the incompleteness of my journey into Steiner's teachings. The task has been formidable and the journey most challenging and rewarding.

Although my original task was concerned with self-education it has occurred to me that others might also benefit from my attempts to understand Steiner's thinking. For me it was a process-learning experience which was in accord with Steiner's own teaching. He did not seek converts nor did he encourage inquirers to abandon their critical faculties.

My aim has been to **understand** Steiner **not to defend** him. My approach has been to learn from him. In some instances I have shown my disagreement with his thought. I have also gained the insight that in a number of areas Steiner stood at the forefront of thinking. This is especially so in epistemology and mathematics.

As a non-Anthroposophist I have not had the benefit of discussions on Steiner's thought with members. I have read Steiner's writings from outside the Society but with a sympathetic approach and a desire to learn.

I seek your indulgences for any errors misrepresentations or repetitions. To encapsulate the thoughts of this modern Uomo Universale in such a slender volume is obviously fraught with difficulty. Best wishes and good reading!

Much love,

Dad
Ngunnawal, ACT

'Rudolf Steiner attained the realisation that the outer world does not hold the entire contents of reality. Man's own thought is part of the evolutionary processes of creation.'

R.G. Seddon

'Every individual is a species in himself'

Guenther Wachsmuth

'The spirit world is not a sphere of relationships between beings and objects, but between beings and beings – and objects always as the expression of beings.'

Rudolf Steiner

'A being is consciousness, a mode of cognition.'

Rudolf Steiner

'Man is the oldest of all creations in the evolution of our earth. The animal creation was not added until the Sun-period, and that of the plants was added only during the Moon-period. The mineral Kingdom is really only an Earth product.'

Rudolf Steiner

A Tribute to Steiner on the Occasion of the 150th Anniversary of his Birth (1861)

Rudolf Steiner was born 150 years ago. I attended a performance of Eurythmy in Canberra that commemorated this event. This occasion led me to reflect on my forty-plus years of studying Steiner's thought. Naturally my reflections are from outside the Anthroposophical Society and the Christian Community. I have not had the benefit of close contact and discussion with many practising Anthroposophists. This means my understanding of Steiner's thought may be idiosyncratic.

From the outset, one must pay tribute to the range of creative contributions of this One-man University! He stands in the company of Emmanuel Swedenborg, Ralph Waldo Emerson, Isaac Newton and, of course, Johann Wolfgang von Goethe. In this tribute I wish to limit myself to identifying three organising principles or key ideas that illuminate many aspects of his thought. These key ideas are: microcosm and macrocosm, metamorphosis, and consciousness.

Three Key Ideas

Microcosm and Macrocosm

The relationship of man to the universe is a key concept in Anthroposophy. Steiner defined Anthroposophy as the path of knowledge which attempts to unite the spiritual in the human being with the spiritual in the cosmos. Or to state the matter in another way: the wisdom of the universe is encoded in man. Thus to understand oneself is to understand the nature of the universe. Man bears within him the whole history of the earth's evolutionary processes. He is a miniaturised version of the universe or a microcosm of the macrocosm.

Metamorphosis

Steiner came to an understanding of Goethe's theory of the metamorphosis of plants by an indirect route. His investigations into the nature of light lead him into optics and the Goethean understanding of colour. Concurrently his studies in anatomy and physiology provided him with subject-matter that enabled him to proceed beyond plant and insect life. He perceived changes of form (morphos) in skeletal development as well as in physiological processes. Thus he was able to extend the range of metamorphic applications into regions never imagined. Some other fields included social theory, architecture and states of consciousness. In effect, Steiner broadened the application of the principles of metamorphosis perceived by Goethe in the **time** dimension. He applied the principles of metamorphosis to the **spatial dimension** in architecture and also extended its application into the **cognitive, conative** and **affective domains**. In short, for Steiner, metamorphosis was a fundamental process of creation that was applicable both point-wise and plane-wise and had applications to organic and non-organic worlds.

Consciousness

While Steiner propounded many imaginative insights into the nature of physical evolution his occult science was more concerned with describing how physical evolution was only a vehicle for giving expression to spiritual evolution.

For Steiner the emergence of consciousness and the moral order deserved the same scientific attention as physical evolution. Indeed physical evolution and spiritual evolution were inseparably linked. Steiner delineated seven stages of earth's evolution. During these stages the consciousness of man developed from a universal trance consciousness through a dreamless – sleep type of consciousness to a pictorial consciousness until he arrived at a waking consciousness which is typical of the present stage of the earth's evolution. In the three future stages man will evolve an astral consciousness further-extended, an etheric consciousness further-extended and finally a universal consciousness. Steiner characterised people such as Swedenborg and Boehme and sleepwalkers as persons who possessed a form of consciousness more typical of an earlier stage of earth's evolution. Presumably, there are others who may already have a consciousness typical of a future stage. The stages of the species development were also mirrored in the individual's body, soul and spirit development. Again, there were individuals whose development was uneven. They could become fixated at an earlier stage or progress to a future stage.

Estimation – 2011

As an outsider I have been more conscious of Steiner's impact on Education and Bio-dynamic Agriculture than on other aspects of his thought. The Christian Community is multiplying but its contribution is not widely noticed. The recent improvements to the Goetheanum and the silent beavering-away of members seems to indicate that the impulse of Anthroposophia has not yet lost its battle to Ahriman.

It seems to be the fate of all new movements to divide and later splinter. The division into literalists and liberalists is something that may need watching in Anthroposophy. The tension between the Anthroposophical society and The Christian Community, as an organ of religious renewal, may also need watching.

Steiner characterised the movement for religious renewal as a daughter of the Anthroposophical movement. He saw the necessity for each impulse to work in harmony. The Anthroposophical society had a more inclusive commission than the Christian Community. At the 150th anniversary of Steiner's birth those 'who have eyes to see' can tell that the yeast is still silently working.

TABLE OF CONTENTS

Letter to Milton

A Tribute to Steiner on Occasion of the 150th Anniversary of His Birth (1861)

MEET RUDOLF STEINER

23

Steiner – A One Man University

Early Life

A Life of Prodigious Range

Pariah of Orthodoxy

Approach to Steiner

Man – (Anthropos) at the Centre of Steiner’s Teaching

From Intellectual Perception to Artistic Perception

Steiner as a Scientist

Selected References

A BRIEF GUIDE TO STEINER’S THOUGHT

1. Life Overview

26

Parents

Neudörfel School

The Wiener Neustadt Realschule

Studies in Vienna

Homelessness

The Goethe – Schiller Archives, the Weimar Years (1890-1897)

Selected References

2. Goethean Influences

29

Johann Wolfgang von Goethe (1749-1832)

Goethe as an Artist and a Scientist

The Galileo of the Organic

Steiner’s Adoption of Goethean Principles of Metamorphosis

- The Urpflanze
- Steigerung
- Osteology and Anatomy
- The Inter-maxillary Bone
- The Cranium as a Vertebra

Goethe’s Farbenlehre and Newton’s Optics

- Colour Formation (*see Section 10 and 23*)

Goethe’s Influence on Steiner

- Nature’s Open Secret

Other Specific Examples of Goethe’s Influence

Selected References

3. The Philosophy of Freedom (1894)

31

Doctoral Dissertation (1892)

The Hidden Wisdom of Creation Can Be Known Directly by Man

Goethe’s Epistemology

Thinking About Thinking

The Philosophy of Spiritual Activity

	The Age of Freedom Primacy of Thinking The Redemption of Thinking Selected References	
4.	Ethical Individualism Morality the Key to Supersensible Knowledge Morality – Ideals Plus Deeds Ethics – The ‘Right Choice’ The Search for the Fundamental Principle of the Moral The Moral Talisman of Kant Steiner’s Opposition to Kant Ethical Individualism and Intuition Selected References	33
5.	The Berlin Years and Early Esoteric Influences Magazin für Literatur Childhood and Youth Three Pathways to Initiation Knowledge The Oriental (or Indian) Pathway to Higher Knowledge The Gnostic-Christo Pathway to Higher Knowledge The Rosicrucian Pathway to Higher Knowledge Theosophy Freemasonry Steiner’s Departure from the Theosophical Society Selected References	35
6.	Ancient and Modern Mystery Centres Ancient Mystery Schools Antediluvian Consciousness The Atlantean Epochs and Initiation Mystery Schools As Transitory Stages Early Greek Mysteries Edward Schure Modern Initiation Knowledge The Goetheanum as a Modern Mystery Temple Selected References	38
7.	The Sensible World An Alternative to Empiricism Steiner’s Epistemology Two Aspects of Steiner’s Epistemology Thinking, As an Organ of Perception Re-examining Sensation, Perception and Ideation The Twelve Senses as Six Polarities Physical, Soul and Spiritual Senses Relationships, Processes and Forces The Senses as a Twelve-Fold Cosmic Egress Criticism of Modern Scientific Methodology Anthropos and Cosmos Perception of Spirit Realities Selected References	41
8.	The Supersensible World An Occult Science	45

1.

Scientist of the Outer (Natural) World

Fichte's 'Wissenschaftslere' (Theory of Science)

The Human Ego

Thinking about Thinking

Sensations, Percepts, Concepts

The Thinking Process

Steiner's Twelve Senses

Four Physical Senses

Four Spiritual Senses

Four Soul Senses

The Observation Process

Goethean Science

2.

Elements of Steiner's Scientific Methodology

The Wholeness of Nature (Including Beauty and Morality)

Three Modes of Investigation

The Causal Mode

The Correlative Mode

The Teleological Mode

Principle of Polarity

Mediation as a Third Principle

Three-folding

Becoming and Metamorphosis

Thinking as a Spiritual Activity

3.

Scientist of the Inner Spiritual World

The Importance of Morality

Six Moral Conditions for Investigating

Thought Control

Initiative in Action

Attainment of Composure

Remaining Positive

Openness to Different Viewpoints

Achievement of Inner Balance

The Contribution of the Four Bodies

The Physical Body – Sensory Knowledge

The Etheric Body – Imaginative Knowledge

The Astral Body – Inspirational Knowledge

The I (or Spirit) – Intuitive Knowledge

The Natural World As Visible Spirit

Selected References

9. Steiner – a Mathematician of Some Brilliance 48

Modern Synthetic Geometry – a Key to His Thoughts

Steiner and Immanuel Kant on the origins of Mathematics and Physics

Euclidean and Non- Euclidean Geometries

A Mobile Form of Thinking

Space and Counterspace

Selected References

10. Polarities 50

Sense Polarity

Colour Polarity
 Changing the Seven into Twelve by Bending the Linear Spectrum
 The Colours of the Cosmic Circle
 The Second Rainbow
 Metaphors of Polarity
 Polarity of Man's Cephalic and Digestive/Limb System
 Polar Relationship of Perfect Solids
 Microcosm and Macrocosm

Selected References

- 11. The Principles of Metamorphosis Are Key Concepts** **53**
- Rejection of 'Outside Onlooker' Paradigm
 Three Goethean Principles of Metamorphosis
 Anschauende Urteilskraft
 The 'Urflanze'
 Steigerung
 'Morphology' and the 'Metamorphosis of Plants'
 Focus on the Celestial Periphery of Space
 Changing Interplay of Polarities
 Metamorphosis of States of Consciousness
 Reincarnation as the Archetype of Metamorphosis
 Selected References
- 12. A Polar Relationship between Astronomy and Embryology** **55**
- Man as a Child of the Universe
 The Nature of Anthroposophy
 The Geometry of Point and Plane
 The New Geometry Generating Seeds of Form
 A Multitude of Spaces
 Space and Counterspace
 Peripheral Forces (Etheric) and Central Forces
 Dynamical Relationships of Planets
 Bees and the Cosmos
 The Balancing of Earthly and Cosmic Forces
 Selected References
- 13. Steiner and Haeckel (1834 – 1919)** **59**
- Steiner's Acquaintance with Haeckel
 Haeckel and Theosophy (1905)
 Steiner's 'Spiritual Intuitive Methodology'
 'Haeckel's Law' and Baer's Reformulation
 Linear Time and The Double Stream of Time
 Steiner's Criticism of Haeckel
 Regressive and Progressive Evolution
 Directionality and Flow of Time
 The Inner Nature of Time
 Temporal Integration and The Modalities of Thinking (Schad)
 Causal, Correlative and Teleological Thinking
 Appropriateness of Modalities
 Microcosmogony and Macrocosmogony
 Selected References
- 14. Steiner's Evolutionary Insights - Transitioning From the Spiritual Archetype to the Physical World** **63**

1.

A Priori Assumptions**Anthropology and Cosmology**

Steiner's Deference to the Hierarchies

The Spirits of Will, Wisdom, Movement and Form

Man is the Oldest of All Creations

Emphasis on Discontinuities not Missing Links

The Logos

The Original Earth Contained the Whole Solar System

2.

Phases of Earth's Development

The Evolution of the Planet

The 'Old Saturn' phase

The 'Old Sun' phase

The 'Old Moon' phase

The 'Earth' phase

The 'Future Jupiter' phase

The 'Future Venus' phase

The 'Future Vulcan Stage'

3.

The Descent into Matter

A Spiritual Geology

Four Kingdoms and Four 'Bodies'

Form and Process

Four States of Densification

Fire, Gaseous, Water and Air

4.

Man and His Relationship to the Three Kingdoms of Nature

The Conventional View

Steiner's Unconventional View

Steiner's Bifurcation of the Four Kingdoms

(i) Mineral and Plant

(ii) Animal and Human

The Interactive Effects of the Sun, Moon, Telluric Forces

The Gestalt of Man and Animal

A Diagrammatic Representation

- Positive Extension from Plant to Mineral

- Negative Extension from Animal to Human

Checking / Reversal (Animal / Human)

5.

Man and His Relationship to the Four Kingdoms of Nature

Physical Body

Mineral Kingdom

Physical, Etheric

Plant Kingdom

Physical, Etheric, Astral

Animal Kingdom

Physical, Etheric, Astral, Ego

Human Kingdom

The Threefold Nature of Man

The Head as an Evolved Animal

Metamorphosed Copies of the Skull

- 15. Steiner's Theory of the Evolution of Consciousness** **69**
- History As Symptom
 - Instinctive Clairvoyance to Full, Clear Consciousness
 - Seven Evolutionary Stages
 - Three Unusual Laggard Types of Consciousness
 - Somnambulistic Type
 - Jacob Boehme-Type
 - Swedenborg Type
 - Eduard von Hartmann and Rudolf Steiner
 - Steiner and Paranormal Phenomena
 - Instinctual Clairvoyance
 - Imagination
 - Inspiration
 - Intuition
 - The Astral Light and Mediums of Resistance
 - Warmth Ether as a Medium of Resistance
 - The Role of Scientific Materialism
 - The Interplay of the Unconscious and the Conscious
 - Consciousness and Spiritual Astronomy
 - Selected References
- 16. Steiner's Views on the Nature of Man** **73**
- Man as a Being of Body, Soul and Spirit
 - Body Development (Physical, Etheric and Astral Bodies)
 - Ego
 - Soul Emergence (Sentient, Intellectual, Consciousness)
 - The Appearance of the Three Souls in Cultural Evolution
 - Spirit Emergence
 - Spirit Development Through Transformation
 - Selected References
- 17. Steiner's Views On Education** **75**
- Declaration to Teachers
 - The Waldorf Schools
 - Education as a Part of a Spiritual Journey
 - The Real Nature of Man
 - The Four Temperaments
 - Thinking, Feeling and Willing (or Head, Heart and Hand)
 - Make-Believe (Fantasy) to Reality
 - Pedagogical Considerations
 - Education as an Art Form
 - Curative Education
 - Camphill Villages and Schools
 - Selected References
- 18. The Four Temperaments** **78**
- The Neglect of Temperament in Psychological Theory
 - Hippocrates (460 – 377 BC)
 - Empedocles (490 – 430 BC) and the Four Elements
 - Galen and the Four Humours
 - The 'quinta essentia' of Paracelsus (1495-1541)
 - Steiner's Use of the Ancient Nomenclature
 - The Analogies of Ann Druitt

	Selected References	
19.	The Three-Fold Social Order	81
	Primacy of Social Reformation	
	The Ideal Social Order	
	The Synarchy of Saint-Yves d'Alveydre	
	The Social Body as Three Interlocking Spheres	
	The Spiritual Sphere	
	The Political Sphere	
	The Economic Sphere	
	The Dethronement of Egotism	
	Selected References	
20.	Steiner and Economics	83
	Competition and the Cultural/ Spiritual Sphere	
	Breaking the Nexus between Money and Human Labour	
	Avoiding Commodification of Labour, Land and Capital	
	Characteristics of Money	
	Money, Savings and Investment	
	Der Kommende Tag	
	Selected References	
21.	Christianity As Mystical Fact	85
	Christianity A New Jewish Mystery School	
	Cosmic Christianity	
	Christianity as Mystical Fact	
	The Mystery Schools as Forerunners to Esoteric Christianity	
	The Mystery of Golgotha and the Akaskic Chronicle	
	The Two Jesus Children	
	Steiner's Opposition to the Greek View of the Role of the Gods	
	Steiner's Adoption of the Hierarchies	
	Angelology	
	The Appearance of the Etheric Christ	
	Christ as the Lord of Karma	
	The Emergence of the Christian Community	
	Selected References	
22.	Bio-Dynamic Agriculture	89
	A World-Wide Agricultural Movement	
	The Earth as a Living Organism	
	Instinctual Peasantry To Conscious Science	
	The Farm as a Factory or Self Sufficient Living Entity	
	Silica and Limestone	
	The Philosophy of Holism	
	Forces - Real or Auxiliary Entities	
	Rhythms, Seasons, Phases of the Moon, Life Cycles, Cosmic Influences	
	Utilizing and Enhancing the Terrestrial and Celestial Life - Forces	
	Dynamised Sprays and Harmonised Manures	
	Formula 500	
	Formula 501	
	Formulae 502 - 507	
	Selected References	
23.	Rudolf Steiner as a Scientist	92

Natural Science and Anthroposophical Spiritual Science
 Historical Perspective Leading to the Hypothetico – Deductive Model
 Higher Mathematics and Theoretical Physics
 Modern Science Only At Transitional Stage
 Ideas and Meanings as the True Objectives in Science
 Twelve Senses Rather than Five
 Epistemological Foundations of Scientific Methodology
 Space, Time and Causality
 Pariah of Orthodox Science
 Space
 Space and Counterspace
 Modern Projective Geometry
 The Uniting of Time and Space (Space/Time)
 Scientific Lecture Courses
 First Scientific Lecture Course on Light
 Second Scientific Lecture Course on Warmth
 The Relation of the Diverse Branches of Natural Science to
 Astronomy
 Rosicrucian Magus
 Newton and Goethe
 Insights Rather than Proofs
 Ponderable and Imponderable Matter
 Selected References

24. The Four Ethers

98

The Scope of Steiner's Scientific Thought
 The Four Elements – Outer and Inner Correspondence
 Elements and Ethers
 The Nature of Light
 The Rainbow
 The Colour Circle
 Magenta
 The Four Ethers
 Life Ether
 Sound Ether
 Light Ether
 Warmth Ether
 Warmth as the Mediator between the Ponderable and Imponderable
 Realms
 Examining the Fourfold Activity of the Etheric
 Ethers and Elements in Earth's Evolution
 Qualitative Physics
 Towards a New Physics
 Selected References

25. Rudolf Steiner as an Artist

102

Art as an Image of Man
 (a) Literature
 Lectures
 Poetry and Meditative Verse
 Mystery Plays
 (b) Speech
 (c) Eurhythmy

- (d) Painting
- (e) Glass Engraving
- (f) Music
- (g) Sculpture

Selected References

26. Steiner's Contribution to Medicine and Pharmacology 107

1.

Principles and Scope of Medicine

The G.P. – Mechanic or Artist
 Man As a Threefold Being
 Atomism and Holism
 Relationships, Processes and Forces
 Treating the Individual NOT the Disease
 The Polarity of Man's Physiology
 Re-Balancing and Individualising Therapy
 Scope of Steiner's Lectures

2.

Sources of Steiner's Medical Approach

Personal Acquaintances
 Samuel Hahnemann (1755 – 1843)
 Potentisation
 Vegetabilisation of Metals
 Sensitive Crystallisation
 Saint – Yves d'Alveudre (1842 – 1909)
 Alchemical and Hermetical Influences
 Rosicrucian Influences

3.

Microcosm and Macrocosm

Man and the Solar System
 Effects of Sun and Moon
 Effects of Inner and Outer Planets
 Rotational Effects of the Sun on Bees

4.

Pharmacology

The Weleda Pharmacopoeia
 Broad Indications not Rigid Formulae
 Potentised Remedies and Artistic Therapies
 Selected References

27. Architectural Achievements 112

The Two Goetheanums
 Common Elements of the Two Goetheanums
 The Seven Pillars, Capitals and Architraves
 The Painted Ceiling
 The Stained Glass Windows
 Anthroposophy in Ideas and in Art
 The Second Goetheanum – Dornach
 Building from the Interior Outwards

- Non-Cartesian in Concept
 The Goetheanum as a Sculptured Building
 Building with Form, Tone and Colour
 Selected References
- 28. The Application of Metamorphosis to Architectural Design in the Goetheanum** **117**
- The Metamorphosis of Form in Time and in Space
 The Transmutation of Form
 The Seven Planetary Seals
 Sevenfoldness
 Imaging Metamorphosis in the Seven Phases of the Seven Seals
 The Seven – Folding of Cosmic Evolution
 Metamorphosis in the Seven Capitals of the Columns
 The Refurbished Goetheanum
 Selected References
- 29. Astronomy – An Extension of Spirituality** **121**
- Light as the Working of Will and Intelligence
 The Logos as the Union of Sun, Moon, Earth
 Separation of the Sun and Moon from the Earth
 Earth and Sun are parts of One Cosmos
 Five Cosmic Spheres
 The Sphere of the Fixed Stars
 The Sphere of the Zodiac or Animal Circle
 The Sphere of the Sun
 A Hollow Space
 A Reflector of Light
 The Sphere of the Planets
 A Living Astronomy
 Inner and Outer Planets
 The Moon Sphere and its Effects
 Sun as Reflector of Light, Life and Love
 Selected References
- 30. Astronomy, Geometry and the Form of Man** **123**
- Astronomical Descriptions need to be Dynamical not Mechanical
 Elliptical Paths Demonstrate Mobility
 Planetary Orbits are Dynamical
 Describing the Mobility of Elliptical Planes Mathematically
 The Ellipse as the Locus of the Constant Sum
 The Hyperbola as the Locus of the Constant Difference
 The Curves of Cassini as Locus of the Constant Product
 when $b > a$
 when b and a are also greater than $\sqrt{2}$
 when b and a are equal to $\sqrt{2}$
 The Circle as the Locus of the Constant Quotient
 The Lemniscate of Bernoulli
 Anatomical and Circulatory Lemniscates in Man
 Secrets of the Skeleton (After L.F.C. Mees)
 The Fluctuating Orbit of Mars as an Image of Man's Respiration (After R. Hauschka)
 Selected References

31. Reincarnation

128

Reincarnation Imaged In Nature

1

The Kingdoms of Nature and their Bodies

Form and Process

Four Conditions of Densification

A Spiritual Geology

Four Kingdoms and Four 'Bodies'

The Mineral Kingdom and Physicality

The Plant Kingdom and Ethericity

The Animal Kingdom and Astrality

The Human Kingdom and Egoity

The Relationship of Man's Bodies to the Kingdoms of Nature

Man and Animal

2

The Reincarnation of Man's Soul Life

Guiding Principle – Preservation/Sloughing

Three-Folding in Man

Three-Folding the Physical Body, the Soul Body and the Astral Body

Soul Emergence

Spirit Emergence

Perfecting the Total Being of Man

Sleep and Waking an Image of Death and Reincarnation

Death

1st Phase in the Physical World (**The Life Panorama**)2nd Phase in the Soul WorldThe Seven Regions of **Kamaloca**3rd Phase in the Spirit WorldThe Seven Regions of **Devachan**

Re-educated Etheric/Astral Body United with A New Physical Body

Selected References

32. Isis Mary Sophia

132

Sophia

Manifestations of the Feminine Divine

The Virgin Sophia as The Holy Spirit

The Pleroma and Kenoma

Creatura and Syzygy

Four Fundamental Syzygies

The Myth of Sophia

Sophia's Attempts to Overcome Her Fallenness

Psychic Initiation and Metanoia

Pneumatic Initiation

The Mystical Marriage

The Pre-Figurement of the Lost Goddess Prior to Christianity

Egyptian Isis as Madonna

Jewish Eve as Achamoth

Grecian Helen of Troy as Sophia

Eros and Psyche

Demeter and Persephone

Hidden Christian References to the Myth of Sophia in the Gospels and
 Open References in Gnostic Gospels
 The Seven Planetary Heavens
 Steiner's Adoption of the Seven Planetary Heavens
 The Seven Phases of Human Development and their Gospel
 Counterparts.

Selected References

**33. The Anthroposophical School of Spiritual Science and its
 Mathematical and Astronomical Section** **136**

1.

The Goetheanum as an International Centre of the Anthroposophical Society

The School of Spiritual Science and its Eleven Sections
 Research, Publication, Dissemination and Sharing
 The Mathematical and Astronomical Section

2.

Modern Scientific Assumptions about Reality and Steinerian Assumptions

Introduction to the New Astrology

Grandeur, Reverence and Awe
 A Renewal of the Egyptian – Babylonian Astrology
 Maya of the Past Deeds of the Hierarchies

3.

Correspondences Between Earthly and Cosmic Natures

Man Writ Large in the Solar System
 Summary
 The Nine Stages Beyond Mankind
 Earthly Bodies and Cosmic Counterparts
 The Sun
 The Zodiac As Spiritual Beings

Selected References

Concluding Remarks **141**

Steiner – Mentor not Master
 Spiritual Visionary and Polymath
 Cosmology: Macrocosm Imaged in Man
 Self-Effacing with a Rich Inner Life
 Dr Karl Hickel and Felix Kogluski – Exemplars of Polar Thinking
 Atomism and Goethean Holism
 Epistemology
 Style of Thinking
 Influence of Ancient Traditions
 The Philosophia Perennis and European Medievalism
 Steiner's Chymische-Hockzeit
 From Synthetic Geometry to Qualitative Mathematics
 Centrality of Christianity
 The Archangel Michael
 Christian Rosenkreutz
 The Cosmic Christ
 The Virgin Sophia
 Towards A New Consciousness
 A New Age Herald

Appendix A	A Refutation of Materialism by Gary Lachman	146
Appendix B	An Example of Rudolf Steiner's Scholarship	
Appendix C	Counter Space Morphic Fields and Morphic Resonance	

MEET RUDOLF STEINER

Steiner – A One-Man University

Ralph Waldo Emerson, in his biographical essay on Emanuel Swedenborg wrote this about his subject:

he (Swedenborg) seemed by the variety and amount of his powers to be a composition of several persons.

A colossal soul, he lies vast abroad his times, uncomprehended by them and requires a long focal distance to be seen.

Emerson's tribute to Swedenborg could just as fittingly be applied to Rudolf Steiner who, like Swedenborg, wrote knowledgeably and voluminously on practically every subject known to man. Steiner wrote more than 20 books and numerous shorter articles. He gave nearly 6000 lectures in such diverse fields as architecture and astronomy, agriculture and apiary, mathematics and history, speech and drama, eurhythmy and dance, medicine and pharmacology, pedagogy and curative education, music and art, philosophy and theology, economics and social organisation. It was said of Steiner that he was a one-man university.

Early Life

Rudolf Steiner was born in 1861, the son of an Austrian stationmaster. He paid his way through school and university by tutoring in subjects he often had to master before he could teach. He completed his first degree at the Technical University of Vienna in mathematics, chemistry, and natural history. He obtained his Doctorate in Philosophy from the University of Rostock for his contribution to a theory of knowledge. This thesis provided a refutation to Kant's arguments concerning the limitations of knowledge. Steiner's reputation as a scholar of Goethe drew an invitation for him to become a co-editor of an encyclopaedia edition of Goethe's works. Steiner undertook the section on Goethe's scientific studies on which he laboured until his 35th year. Simultaneously he had been pursuing activities as an editor of a literary journal and as an investigator into European mysticism and free masonry.

A Life of Prodigious Range

Steiner was an extremely well read man. *See Appendix B about his 'Riddles of Philosophy'. His personal secretary, Guenther Wachsmuth, spent a large part of his working time locating books for him to read. It is a mistake to attribute all his thought to his possession of clairvoyant capacities as many of his followers do (and some of his critics). If Steiner had chosen to do so he could easily have held University Chairs in a whole range of disciplines – Literature, Philosophy, History, Psychology, Political Science, Economics, Mathematics, Physics, Astronomy, Medicine, Pharmacology, Engineering, Agriculture, Education and Biblical Studies to name a few! In his commitment to scholarship, Steiner differentiates himself from such people as Guirdieff, Alice Bailey and L. Ron Hubbard even though he is usually grouped in their company. Steiner earned his livelihood in his early years as a scholar.

When the definitive edition of his work is finally published it will number some 350 volumes. If one adds to these purely literary achievements, his production of plays, his design and engineering skills and his sculptural and painting activities, then one is confronted with a life of prodigious range and productivity. However, what is even more amazing than his mastery of these diverse disciplines was the originality and freshness of insight he added to them.

Pariah of Orthodoxy

In his early forties Steiner revealed to the world that he possessed clairvoyant means of understanding hidden knowledge. While this open revelation endeared him to the members of the Freemasonry, Theosophical and Rosicrucian movements it, at one stroke, alienated him from the company of orthodox scholarship. He became, like Swedenborg, a pariah of orthodoxy once this non-approved access to the paranormal became known. In effect, he ceased to be 'respectable' as a scholar. Steiner, himself did not assist matters. He espoused theosophical doctrines of reincarnation and Karma and lectured widely on Lemuria and Atlantis. He 'peopled' his spiritual world with gnomes, undines, sylphs and fire spirits. These beliefs and doctrines not only alienate most westerners, they also make it difficult to understand his more innovative and attractive ideas.

Approach to Steiner

I have generally taken the view that it is an unwise policy to only study those subjects which are congenial to one's upbringing or which reinforce one's prejudices. New knowledge can come from breaking a tabu or looking at old knowledge in a new and interesting light. It was with such a predisposition that I began reading the books and lectures of Rudolf Steiner some 40 years ago. While I have never been an Anthroposophist or a member of the Christian Community, I have been a member of the Anthroposophical Lending Library and an avid reader of books from Steiner bookshops. I have found much sympathy with a lot of Steiner's thinking and there are many areas in which he has made original and highly creative contributions. There are also a number of areas of his work with which I disagree.

Man – (Anthropos) At the Centre of Steiner's Teaching

In attempting to understand Steiner's thinking, it is necessary to distinguish between his methodological assumptions and those of his contemporary thinkers.

Steiner carefully enjoins his readers to distinguish between sensory and perceptual inputs before seeking a hypothesis upon which a theory of causation can be developed. For Steiner there can be no objective science. Man, as the observer, always participates in the observation and influences it. This approach has found acceptance among recent theorists of quantum physics. Steiner's methodological approach to scientific investigations stems, in large part, from his immersion in the Goethean world-view. This pathway was rejected by Newton and modern science. The disturbing aspect about Steiner's scientific observations are not so much his different starting points or even his unorthodox findings, it is rather the fact that he knew so much about orthodoxy and still maintained his own viewpoint. There is an astronomy in man, and the universe is man writ large.

From Intellectual Perception to Artistic Perception

Steiner presents a huge challenge to the open inquirer whose intellect has been shaped by British Empiricism and Western science. His style of thinking almost requires a relaying of the foundations of the thinking processes of modern Western man. His thought blends the best of logic with a type of paralogic that includes an aesthetic sense:

Man must not only be studied merely according to logic, but according to a reason only acquired when intellectual perception has passed over into artistic perception.

Man as Symphony of the Creative Word.

Steiner as a Scientist

Steiner was a scientist in the Goethean manner. Like Goethe he found it repulsive to adopt the modern scientific methodology as an exclusive arbiter of investigation.

Popplebaum expresses the Goethean approach:

‘A scientist does not need to prove his ideas but rather develop them’

The Battle For a New Consciousness
by Hermann Popplebaum, p. 117

Steiner was both respectful and knowledgeable about the findings of modern science. However, he seriously challenged much of its epistemological underpinnings. He also claimed that its adoption of the attitude of an ‘outside onlooker’ who ‘objectively’ recorded sense-data was false and led to a one-sided, reductionistic materialism. We might characterise Steiner as a thorough going quantum scientist. He endeavours to relate all observations through the human being.

Steiner’s own approach was holistic and reliant on senses heightened by a moral quality and infused with an artistic tone. Steiner sought to provide **insights** rather than **proofs**, and **building-blocks** rather than **edifices**. Moreover, **for Steiner, ‘life’ was a property of ‘form’ and not ‘matter’**. Man was not simply at the apex of the evolutionary chain but rather a **compendium** of the kingdoms of nature.

SELECTED REFERENCES

Steiner – A One-Man University

Adams (Kaufman) George, *Interpreter of Rudolf Steiner*, compiled by Olive Whicher, Foreword by Owen Barfield; Henry Goulden, 1977.

Barfield, Owen; *The Case for Anthroposophy*, London, 1970.

Barnes, Henry; *A Life For The Spirit – Rudolf Steiner in the Crosscurrents of Our Time*; Anthroposophic Press, N.Y., 1997.

Easton, Stewart; *Man and World in the Light of Anthroposophy*; N.Y. 1983.

Edmunds, Francis; *A Way of Life*, Hatfield, East Sussex; Carnant Books, 1982.

Harwood, A.C. ed. *The Faithful Thinker: Centenary Essays on the Work and Thought of Rudolf Steiner 1861-1925*; London, Hodder and Stoughton, 1961.

Heidenreich, Alfred; *The Unknown in the Gospels*; London, Christian Community Press, 1972.

Rittelmeyer, Friedrich; *Rudolf Steiner Enters My Life*; Edinburgh; Floris Books, 1982.

Shepherd, A.O.; *A Scientist of the Invisible: An Introduction to the Life and Work of Rudolf Steiner*; N.Y. Inner Traditions, 1983.

Steiner, Rudolf; *The Course of My Life*; translated by Olin D. Wannamaker, N.Y. 1951.

A BRIEF GUIDE TO STEINER'S THOUGHT

1. Life Overview

Parents

Rudolf Steiner was born on February 27, 1861.



Franziska and Johann Steiner

'I was born in a Slavic region in an area completely foreign to the whole milieu and character of the place from which my ancestors came.'

(p. 224 *Spiritual Beings in the Heavenly Bodies and in the Kingdoms of Nature*).

His parents were both Austrian but his father Johann Steiner had been appointed as a stationmaster and telegraph operator to Kraljevec which was just over the Austrian border into Croatia. He thus grew up in a place where Middle and Eastern Europe meet. Rudolf was the eldest of three children, Leopoldine and Gustav were his siblings.

Neudörfel School

At the age of 8, Rudolf borrowed his teacher's geometry textbook. He absorbed the knowledge of Euclid like a sponge. He, later, drew a comparison between the theoretical knowledge of geometry, which he could hold in his thinking, and the knowledge of the spiritual world which was also not dependent on sensory experience.

The Wiener Neustadt Realschule

At the age of 15, Rudolf saw a copy of Immanuel Kant's *Critique of Pure Reason* in a local bookshop window. He purchased the book in order to examine the place of human reason in life. He took the book apart and interleaved it in his history textbook and read it during history lessons. Sometimes he had to read the one section twenty times to absorb its meaning. The reading of Kant, at such an early age, gave him insights into his own manner of thinking. In due course he came to reject the pessimism of Kantian epistemology.

Studies in Vienna

Steiner graduated from the Realschule in Wiener Neustadt in 1879. He then enrolled in the Technical Institute of Vienna. He undertook studies in mathematics, natural history and chemistry. While at the Technical Institute he met Karl Julius Schröer, a visiting

professor of literature from the University of Vienna. Schröer was one of the foremost Goethe scholars of that time. As a result of his discussions with Schröer, Steiner began to develop a theory of knowledge.



Rudolf Steiner in 1882



Karl Julius Schröer

This theory was based on THINKING ABOUT THINKING. Steiner sought to accommodate his epistemological musings to the insights he gained from Goethe's scientific methods. On Schröer's recommendation, Steiner was asked by Joseph Kuerschner to edit Goethe's scientific work for inclusion in the Kuerschner editions of German literary classics. Midway through his editorial work Steiner examined Goethe's methodological style and wrote *The Theory of Knowledge Implicit in Goethe's World Conception*. He completed this in 1886 at the age of twenty-five. He had supplemented his introductions to the several volumes and selections of Goethe's scientific writings. These thoughts were later collected into a separate volume called *Goethe the Scientist*.

Homelessness

In his monumental biography on 'Rudolf Steiner', Lindberg identifies 'homelessness' as a significant feature of Steiner's life, 'It sculptured his destiny'.

'With the exception of the ten years in Neudorf and the seven in Weimar, he spent his life travelling. His domiciles (Kraljevec, Modling, Pottschach, Neudorf, Oberlaa, Brunn, Vienna, Weimar, Berlin, Stuttgart and finally Dornach), were but stops on the way.'

Steiner never owned his own home. As a lecturer he travelled extensively in Germany, Switzerland, Austria, Holland and perhaps less so in England, France, Scandinavia, Hungary and Italy.

The Goethe – Schiller Archives, The Weimar Years (1890-1897).

In 1889, at the age of twenty-eight, Rudolf Steiner was examined by Heinrich von Stein in Rostock for his doctorate. In the autumn of 1890 he moved from Vienna to Weimar where he worked at the Goethe – Schiller Archives. He collaborated on the great Sophia Edition commissioned by the Grand-duchess Sophia of Sachsen-Weimar.

SELECTED REFERENCES

Barnes, Henry; *A Life for the Spirit – Rudolf Steiner in the Crosscurrents of Our Time*; Anthroposophic Press, N.Y., 1997.

Steiner, Rudolf; *The Course of My Life*, translated by Olin D. Wannamaker, N.Y. 1951.

Lindberg, Christoph; *Rudolf Steiner a Biography*; SteinerBooks, Inc.; 2012

2. **Goethe's Influence on Steiner**

Johann Wolfgang von Goethe (1749 – 1832)

In the western world Goethe is usually identified as a significant man of letters. He is associated with the German romantic tradition. He wrote poetry, novels and the monumental drama Faust (Part 1 and 2). He did all these things even though he qualified in Law and was employed as a Privy Counsellor to Duke Karl August of Weimar. In this position he was responsible for building roads, bridges, canals and a national theatre.



Johann Wolfgang von Goethe (1749-1832)

Goethe as Artist and Scientist

Despite his lifelong commitment to literature Goethe thought of himself fore-mostly as a scientist. In a rather unique way Goethe regarded Art as part of Nature. It too, was subject to natural law even though these laws may be found on a different plane. Truth could be found in both Art and Nature. These truths could be discovered NOT by observation PLUS thinking. They could be found by observation THROUGH thinking.

The Galileo of the Organic

Steiner's early immersion in the scientific works of Goethe, and Steiner's independent application of a metamorphic style of thinking, led him to write and publish *Goethe's Theory of Cognition* in 1886. This work, no doubt contributed to Steiner's appointment in 1888 to the team of encyclopaedists who were editing Goethe's published and unpublished manuscripts. Although Steiner did not take up his appointment until 1890 his labours on Goethe's scientific investigations continued to 1897. Steiner came to regard Goethe as 'the Galileo of the Organic'.

Steiner's Adoption of the Goethean Principles of Metamorphosis (see also Section 11 in 'A Backpackers Guide To The Teachings of Rudolf Steiner').

Goethe was no dilettante in his scientific studies. He kept abreast of the scholarship of his day. He wrote articles and essays on his investigations. He wrote two extensive essays on Morphology and the Metamorphosis of plants. In these essays he drew attention to his methodology and his claims about '**urpflanze**' and the prototypic importance of the leaf. Another one of his principles was that of '**steigerung**'. This concern was of the three successive waves of expansion and contraction in plant life.

In the fields of Osteology and Anatomy, Goethe argued for the metamorphosis of the vertebral structure as controlling the form of the cranium. He also claimed that man also possessed a hidden inter-maxillary bone in the cheek.

Goethe's 'Farbenlehre' verses Newton's 'Optics'

Goethe challenged Newton's theory of colour formation.

(see Section 10 and 23 of this book)

Goethe's Influence on Steiner

The Anthroposophical Society has produced an on-line presentation of Steiner's anthology of Goethe's scientific articles called '*Natures Open Secret*'.

Although Steiner was profoundly influenced by Goethe, a great deal of this influence confirmed Steiner's independent thoughts. Before Steiner had worked on the scientific studies of Goethe, he had enunciated his own epistemology and subsequently found much confirmation in Goethe. Steiner criticised the methodology of modern scientists mainly because of what they omitted from their assumptions about the nature of 'matter' and 'life'. In studying a plant under a microscope, the modern biologist committed a grave and fundamental error. By removing the plant from the earth in order to study it, the scientist altered the essential nature of the plant. The plant belonged to the earth and it had to be studied in relation to the whole earth. It also had 'life' which was either ignored by modern biology or reduced to a study of the plant's physical and chemical properties. Modern biology is a branch of mechanics and is lifeless.

Other Specific Examples of Goethe's Influence

The following three examples illustrate some of the ways in which Goethe influenced Steiner's thinking:

- Steiner drew inspiration from Goethe's fairy tale: *The Green Snake and The Beautiful Lily* and lectured about its hidden meaning.
- Steiner developed the application of Goethe's botanical insights into the principles of metamorphosis (*Anschauende Urteilskraft*, *Steigerung* and *Urpflanze*) and applied them to Zoology, Social Theory and Reincarnation Doctrine.
- He applied the principles of metamorphosis to the architectural ideas incorporated into the Goetheanum.

SELECTED REFERENCES

Anthroposophical Press. Online by Rudolph Steiner

Bortoft, Henri; *Wholeness of Nature*, Floris Books, 1996.

Goethe, J.W.; *The Metamorphosis of Plants*, Bio-dynamic Farming and Gardening Assoc. Inc., 2004.

Lehrs, Ernst; *Man or Matter*, Rudolf Steiner Press, London, 1985.

McDermott, Robert A., Ed; *The Essential Steiner*, Harper and Row, 1984.

Shepherd, A.P.; *A Scientist of the Invisible*, Hodder and Stoughton, 1975.

Steiner, Rudolf; *Goethe's Secret Revelation*, Rudolf Steiner Press, 1932.

Steiner, Rudolf; *The Redemption of Thinking*, Hodder and Stoughton, 1956.

Steiner, Rudolf; *Goethe as the Founder of a New Science of Aesthetics*, Rudolf Steiner Publishing Co. Trans by G. Metaxa, Ed. by H. Collison. Undated.

Steiner, Rudolf; *Goethe's Conception of the World*, Anthroposophical Pub., 1928.

3. **The Philosophy of Freedom (1894)**

Doctoral Dissertation (1892)

Steiner's doctoral dissertation, *Truth and Knowledge* was subtitled *Prelude to a Philosophy of Freedom*. This dissertation was published in 1892 and its ideas were later elaborated and developed into Steiner's major philosophical work *The Philosophy of Freedom* (1894). This work stated:

"... from the spiritual nature of thinking. Steiner was able to form ideas that bear upon the spiritual world in the same way that the ideas of natural science bear upon the physical."

(Introduction to *The Philosophy of Freedom*, p. viii).

The Hidden Wisdom of Creation Can Be Known Directly by Man

Steiner taught that a new stage had been reached in man's thinking. Mankind had now been developed to a level in which his own thinking processes could unravel the secrets of creation. This stage was one of freedom. Respect for ancient dogma was important but mankind was no longer sub-servient to it.

Goethe's Epistemology

Goethe challenged the scepticism of Kant's claim that we cannot get beyond man's perceptions to know 'the thing in itself'. For Goethe man as spirit is part of nature as spirit. He does not separate object and idea. The idea is expressed in the object. For Goethe 'truth' is a revelation emerging where the inner world of man meets external reality. Truth is a synthesis of world and mind. Truth is not 'out there' but 'in here'. There are no limits to knowledge. Knowledge can be found by appropriate thinking.

Thinking About Thinking

In his analysis of the thinking process Steiner goes well beyond the contribution of the **senses** that receives inputs and the **percepts** that shape them by the observer. He details the part played by the process of integrating percepts into the storehouse of **concepts**. He does not stop there. He then allows for **reason** to identify the **idea** hidden in the object under question. Steiner may be called an **idealist**. However, for Steiner **ideas are real!** Again, the **idea** is detected by **apprehension**. Thus, Steiner may be called an **intuitive idealist**.

The Philosophy of Spiritual Activity

Steiner suggested that his major work be called *The Philosophy of Spiritual Activity* for English readers. Such a title draws attention to the central claim of Steiner, viz, that **'thoughts are the products of an activity that precedes them'**. It is this **activity** that links the perception and the concept. According to Anne Bancroft, Steiner regarded thinking as the road to freedom. Before any ideas can be formed at all, the **thinking process** must be there. Thinking comes even before the distinction between subject and object. Thinking actually produces the ideas of inner and outer. The real starting point for knowledge and understanding was **not the idea but the process of recognition and thinking by which the idea arises**.

'He believed that this process is the vehicle by which higher powers work with us and that if we can bring the mind back to that state of pure thinking before the concept is formed, we will develop in ourselves a freedom to see the real nature of existence.'

(see Anne Bancroft's *Twentieth Century Mystics and Sages*, p. 262); and

'Knowledge comes from observation with thinking, NOT observation plus thinking.'

The Age of Freedom

Rudolf Steiner had first-hand knowledge of Occult Mystery Schools and their earlier expressions in the ancient mystery schools. He was buried in the robes of a Knights Templar. Many of these traditions had severe penalties assigned to novitiates who revealed the secrets of these teachings. Steiner declared that those sanctions were 'over'. He declared a philosophy of freedom wherein the once secret knowledge was available to all true seekers. Steiner's declaration may have been the reason why the first Goetheanum was destroyed by fire.

Primacy of Thinking

In Christopher Bamford's collection of selected lectures and writings by Rudolf Steiner *Isis Mary Sophia* (2003) the following extracts can be found:

'We must first consider thinking completely neutrally, without reference to a thinking subject or a thought object. For in subject and object we already have concepts that are formed by thinking.' (p. 47)

'Unprejudiced observation shows that nothing can be attributed to the essence of thinking that is not found within thinking itself.' (p. 47)

'It is through the thinker that thinking is linked to observation. Human consciousness is the stage where concept and observation meet and are connected to one another. It is the mediator between thinking and observation.' (p. 47)

'Thinking is beyond subject and object. It is not the subject who introduces the relationship but thinking.' (p. 48)

The Redemption of Thinking

Steiner taught that at one time man had a direct sense-bound apprehension of the spiritual world. It was the destiny of man to perceive the same understanding by thought processes, i.e. through the consciousness of his higher self. Unfortunately, such thought processes had developed but had gone astray. Thinking had incorporated logic and judgements which were not based on a clear epistemological base. Modern scientists had assumed that the scientist was simply an 'onlooker' whose thought processes were the passive receivers of sense impressions. Steiner's view was that of a quantum thinker. Man as observer had to be included in the observation.

SELECTED REFERENCES

Bancroft, Anne; *Twentieth Century Mystics and Sages*; Henry Regnery Co.; Chicago; 1976.

Steiner, Rudolf; *The Redemption of Thinking A Study in the Philosophy of Thomas Aquinas*; Hodder and Stoughton; 1956.

Steiner, Rudolf; *The Philosophy of Freedom, The Basis for a Modern World Conception*; 7 Ed. Trans. by Michael Wilson; Rudolf Steiner Press; London; 1973.

Steiner, Rudolf; *Isis Mary Sophia – Her Mission and Ours* (Selected lectures and writings by Rudolf Steiner). Edited and introduced by Christopher Bamford, Steiner Books, 2003.

Archiatì, Piatro; *From Christianity to Christ*; Temple Lodge; London; 1996.

4. Ethical Individualism

Morality the Key to Supersensible Knowledge

The organs of Supersensible Knowledge are organs of the soul. The essence of the soul is morality. When the soul life has been infused with the highest moral qualities Supersensible Knowledge will automatically ensue. A.P. Shepard expresses it this way:-

‘It is impossible to advance to the third stage of higher knowledge, Intuition, except after special moral preparation.....’

and

‘the most essential of them is a complete humility and a sense of reverence towards the whole world of reality, and particularly towards one’s fellow human beings!’

A Scientist of the Invisible p.93

Steiner himself expressed it thus:-

‘For every one step that you take in the pursuit of higher knowledge, take three steps in the, perfecting of your own character’

Knowledge of Higher Worlds
p 139 and 70

Morality – Ideals Plus Deeds

Morality is concerned, with, ‘oughtness’. It is concerned with ‘right’ thought and ‘right’ deeds. Both thoughts and deeds constitute the structure of morality.

Ethics – The ‘Right’ Choice

Ethics is concerned with the ‘rightness’ of an action or deed.

The Search for the Fundamental Principle of the Moral

Steiner laid the foundations of his Moral Philosophy in *The Philosophy of Freedom*. Ethical behaviour may be governed by etiquette, norms or ‘mores’ which are regulated by sanctions, or be determined by a system of principles. Some thinkers have searched for a fundamental principle of morality. One such claim recognises ‘the pleasure principle’ as that fundamental principle. This has been elaborated into doctrines such as Egoistic Hedonism, Altruism and Utilitarianism (Bentham, Mill). Others have promulgated authoritarian principles derived from revelation or from aspects of a social contract (Locke, Rousseau) or a theory of history (Hegel, Marx).

The Moral Talisman of Kant

Kant was a devout Christian, a Pietist Lutheran, and his faith was unshakeable. He was also a firm believer in the new physics of Isaac Newton. For Kant the watchword for guidance was ‘reason’. Science was eminently rational and morality similarly consisted of universally obligatory **moral laws**. These laws were immutable and were like the laws of physics. Obedience to these laws resulted in necessary consequences. A moral principle is one that allows for impersonal universalization just as the laws of physics are impersonal and universal. Moral principles are not subjective. They are also imperative and include **a call to duty** – even though man’s will is free to disobey. Kant’s fundamental guiding principle is

‘to act only according to that maxim by which you can at the same time will that it should become a universal law.’

also

‘act so that you treat humanity, whether in your own premises or in that of another, **always as an end and never as a means only.**’

(History of Ethics Vol 1 pp 323-324)

Steiner's Opposition to Kant

Steiner's moral philosophy rests totally on man's freedom. It is not a question of adherence to a set of divine rules or an ethical commitment to a set of human rules. It is not even based on an ethical imperative that requires obedience to 'duty'.

*'For Steiner, acting in freedom is **acting out of a pure love of the deed as one intuitively grasps the moral concept implicit in the deed.**'*

(*The Essential Steiner*; Robert and McDermott p. 43)

and

'Intuition refers to the process of immediately grasping a thought or idea. Intuition is for thinking what observation is for the percept.'

ibid

Ethical Individualism and Intuition

Steiner understood morality as not coming from commandments or obligations imposed by others from outside. In this respect it was thoroughly INDIVIDUALISTIC. The nature of Steiner's ethical individualism also rests on INTUITION. Intuition is not to be confused with conscience. Conscience merely divines and warns. It merely advises but provides no impulse. According to Steiner, it is intuition which provides this impulse. Intuition, in this sense, is **a person's union with his own higher being**. When this is achieved there are no egoistic motivations. In such deeds love and self-realisation are united.

SELECTED REFERENCES

Poplebaum, Hermann; *The Battle for a New Consciousness*, Esp. Ch. 7 Moral Freedom and Intuition (pps. 74-81); Mercury Press; N.Y.; 1992.

Steiner, Rudolf; *The Philosophy of Freedom*; The Basis for a Modern World Conception; Trans Michael Wilson; London, 1970.

Bourke, Vernon J.; *History of Ethics Vol 1*; Axios Press; 1968

Shepherd, A.P.; *A Scientist of the Invisible*; Hodder and Stoughton; 1975

5. The Berlin Years and Early Esoteric Influences

Magazin für Literatur

While still at Weimar, Steiner wrote two more books, *Friedrich Nietzsche Fighter for Freedom* (1895) AND *Goethe's Conception of the World* (1897). He then moved to Berlin to take over the editing of a literary magazine. While living in Berlin, Steiner began to expand his understanding of esoteric matters and began to lecture on how such matters were hidden in the Christian tradition.

Childhood and Youth

Steiner does not reveal the sources of his cosmology or of the knowledge of higher worlds contained in his esoteric books. He tells us he was 'obliged to remain silent' about the sources of his information. We may surmise that it was a combination of his own natural clairvoyant skills and his encounters with significant others. Among the latter one would have to include a visiting **Dr Karl Hickel from Weiner – Neustadt** and **Felix Kogutski** whom Steiner met with at age eighteen. Kogutski was a herb gatherer who became the model of Felix Balde in one of Steiner's four mystery plays. For Steiner there are no chance encounters in one's biography. Other early influences would have to include **Karl Schroer** and **Edourd Schure**, Karl Schroer introduced Steiner to the world of Goethe's literature and science. Edourd Schure was a French occultist who later opened Steiner's awareness to the mystery religions.

Three Pathways to Initiation Knowledge

There are many pathways to initiation Knowledge. In his teachings Steiner directed most of his attention to three:

- the Oriental or Indian
- the Gnostic – Christo
- the Rosicrucian

These three systems do not contradict one another. They arose at different times and are suitable to the needs of different people under different circumstances.

The Oriental or Indian Pathway to Higher Knowledge

In the Oriental system the pupil (or chela) is reliant on his Guru (less so in the Gnostic – Christo system and even less in the Rosicrucian path). The Guru instructs his pupil and assists him through eight yogic stages: Yana, Asana, Nyama, Pranayama, Pratajahara, Dharana, Dhyana, and Samadhi. (It is interesting that Guirdjieff outlines two stages before the one outlined above: the way of the Fakir and the way of the Monk precedes the way of the Yogi).


The Gnostic – Christo Pathway to Higher Knowledge

This system utilises the Gospel of St. John and the Passion narrative to develop an inner-sensibility to enter into the soul life of the 'Man of Sorrows'. Suffering is a quality of the soul life of the planet. The initiate is enjoined to enter into the 'feeling-life' of 'The Stations of the Cross'. This assists soul development in the initiate.

The **Washing** of the feet (St. John xiii), The **Scourging** (St John xix), The **Crown of Thorns**, The **Crucifixion**, The **Mystic Death**, The **Burial**, and finally The **Resurrection** (St John xx) are stages in the Gnostic-Christo path.

The Rosicrucian Pathway to Higher Knowledge

In 1924 Rudolf Steiner gave a lecture in Dornach (on the 5th January) in which he spoke about the emergence of another mystic path. He spoke about the strivings of Meister Eckhart, Johannes Tauler, Nicholas Cusa, and especially Raymond Lull (1235-1315 CE). These strivings were eventually ritualised by a secret Brotherhood. This Brotherhood practised rites of initiation which incorporated elements of Hermetic

thought including Astrology, Alchemy, and the Kabbalah. Steiner displayed a thorough acquaintance with the teachings of Raimund Lull (1235-1315), Raimund of Sabunda (b. 1430 ) , Agrippa von Nettesheim (1486-1535) and Paracelsus (1493-1541). These Hermetic philosophers were remarkably influential scientists and seers. Today their teachings about astrology, alchemy, the Kabbalah, magic and mysticism would not receive the same respect that Steiner accorded them. His treatment of Hermetic and Rosicrucian thought was not only respectful but also insightful. Steiner's understanding of these streams provided a new and interesting bridge to esoteric Christianity. It was this 'bridge' which later caused his disagreement with the Theosophists. They preferred the Indian pathway to higher knowledge.

The Rosicrucian pathway was summarised by H. Collison (in *'Investigations in Occultism'*) as consisting of seven stages: Study, The Development of Imaginative Knowledge, The Learning of the Occult Script, The Rhythm of Life and of the Breath, The Correspondence between Macrocosm and Microcosm, Uniting with the Macrocosm and God Blessedness.

Theosophy

In 1900 Steiner gave a lecture series to the Berlin members of the **Theosophical Society**. These lectures were published in 1901 as *Mysticism at the Dawn of the Modern Age*. In 1902 Steiner was installed as General Secretary of the German Section of the Theosophical Society. Mrs Annie Besant, the World President, officiated. Also in 1902, three German occultists: Theodor Reuss, Joshua Klein and Franz Hartmann, obtained a Charter from John Yarker to practise a form of Freemasonry. John Yarker was the Grand Master of the Rite of Swedenborg in England (according to A.E. Waite – *The Unknown Philosopher*, p. 462). This same John Yarker sold obscure charters which were affiliated to his Lodge of **Memphis and Misraim**. The Berlin Chapter of the Lodge called itself the **Ordens Tempel der Ostens**, the **Order of Oriental Templars**. It was from the Berlin Lodge (O.T.O.) that Steiner obtained a charter to operate under the name of **Mysteria Mystica Aeterna**. This chapter commenced in 1906 and ceased in the summer of 1914. Steiner claimed that 'he never thought of working in the spirit of such a society (i.e. the O.T.O.). Francis X. King concludes that:-

'It was an unwise move, however, and while one can be confident that Steiner never practised sexual magic one can understand how it was that he came to be accused of so doing.'

Rudolf Steiner and Holistic Medicine by Francis X. King, p. 28.

Freemasonry

Steiner knew a lot about Freemasonry and organizations associated with it. Steiner was buried in the robes of a Knight Templar. At its higher levels Freemasonry has degrees which incorporate elements of the Rosy Cross, Swedenborg and Knights Templar teachings.

Steiner's Departure from the Theosophical Society

In his lectures to members of the Theosophical Society Steiner made frequent references to Christian mystics such as Meister Eckhart and Jacob Boehme. In addition to the Hermetic philosophers, Steiner made occasional references to the unique characteristics of Jacob Boehme, Christian Rosenkrantz, Emmanuel Swedenborg, Martines Pasqually and Louis Claude de Saint Martin. He also spoke knowledgeably about renaissance mystics and natural philosophers such as Giordano Bruno, Paracelsus and Kepler. His teachings and commentary on Emanuel Swedenborg also drew his audience away from the Eastern leanings of the Theosophical Society. He

emphasised the primacy of Christian and European thought. Steiner broke with the Theosophical Society in January 1913 and in February of that year the Anthroposophical Society was formed. Steiner did not himself become a member but accepted the title of Honorary President.

SELECTED REFERENCES

(See references for Section 1).

Theosophy and Freemasonry

Steiner, Rudolf; *Theosophy of the Rosicrucian*; Trans. M. Cottrell and D.S. Osmond; London, 1981.

Steiner, Rudolf; *Rosicrucianism and Modern Initiation*; Rudolf Steiner Press; 3rd Edit; 1982.

Waite, Arthur Edward; *The Unkown Philosopher – Louis Claude de St. Martin*; Rudolf Steiner Publications; NY; 1970

Naudon, Paul; *The Secret History of Freemasonry; Inner Traditions*; Rochester Yermont; Eng. Trans. 2005.

Steiner, Rudolf; *The Temple Legend*; Rudolf Steiner Press; London; 1964.

Steiner, Rudolf; *Knowledge of Higher Worlds and its Attainment*; Trans. Henry B. and Lisa D. Monges; NY; 1947

6. Ancient and Modern Mystery Centres

Ancient Mystery Schools

In addition to his reading in conventional and orthodox subjects, Steiner was, at the same time, thoroughly conversant with the literature of esoteric thought. Indeed, he both wrote and lectured on the importance of mystery schools such as those in Greece, Rome, Egypt, Chaldea, Scandinavia, Wales and Ireland. Steiner understood Christianity through the eyes of an initiate of a mystery School, and not from a biblical tradition. He outlined exercises to assist would-be initiates in either the Christian or the Rosicrucian pathway to higher knowledge.

Antediluvian Consciousness

Steiner explained that before the Christian Era man's consciousness was essentially different to what it is today. Man did not experience the physical world as he does today. The images of the world were much less distinct and the tonal sounds revealed different information than they do now-a-days. 'When a human being descended into his physical and etheric bodies he still had some perception of the spiritual beings around him.' These beings were the gods of which the legends tell. Those in northern regions could see Odin, Freya and Baldur. The sagas are memories of these experiences. (*The Festivals and their Meanings*).

The Atlantean Epochs and Initiation

After the Atlantean Flood man's consciousness underwent further modifications through the Ancient Indian, Ancient Persian, Ancient Chaldean – Assyrian – Babylonian – Egyptian, the Greco-Roman cultures to our present European epoch. In these ancient times waking and sleeping yielded different experiences than man experiences today. The Mystery teachers initiated people in ways that enabled pupils to be aware of what they did not remember of their dream-life. The content of this lost dream-life was preserved and guarded by the priests of the different Mysteries;

'The wisdom was one and the same, whether cultivated by Pythagoras in his school, by the Chaldean sages in Western Asia, by Zarathustra in Persia, or by the Brahmans in India.'

Festivals and their Meanings, p203

Mystery Schools as Transitional Stages

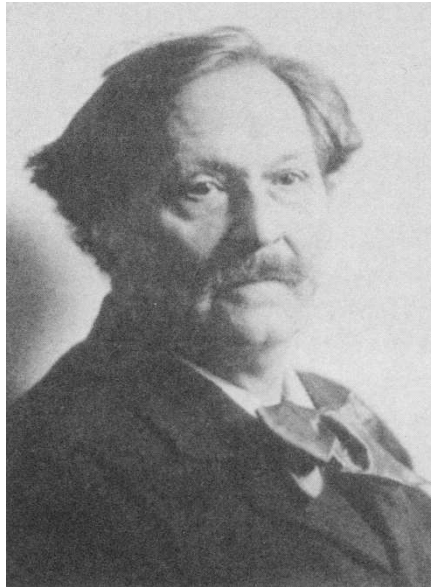
Bellah understands the mystery religions as transition stages between 'archaic' and 'historic' religions. They flourished throughout the Mediterranean region during the ascendancy of Egyptian, Greek and Roman eras before Christianity and at the time of its formation.

'At the heart of the Mysteries were myths concerning a dying and resurrecting godman who was known by many different names' although 'fundamentally all these godmen are the same mythical being.' 'In Egypt he was Osiris, in Greece Dionysus, in Asia Minor Attis, in Syria Adonis, in Italy Bacchus, in Persia Mithras.'

The Jesus Mysteries; T. Freke and P. Gandy, p. 5

Early Greek Mysteries

Steiner lectured extensively on Greek Mystery religions including Platonism, Pythagoreanism, Orphism and the Eleusinian Mystery rites.



Édouard Schuré
Author of Mystery Drama – ‘The Sacred Drama of Eleusis.’

Édouard Schuré

In 1906 Steiner was introduced to the noted French authority on the ancient Mysteries. Édouard Schuré was greatly impressed by Steiner's grasp: 'Listening to him one could not doubt the reality of his spiritual vision'. In 1907 Steiner and Marie von Sievers produced a dramatic representation of Schuré's account of the Eleusinian mystery. *The Children of Lucifer* written by Schuré was also performed that year at Munich. Marie von Sievers translated the play while Steiner designed the sets and the costumes. On this occasion the first of Steiner's mystery plays was staged.

Modern Initiation Knowledge

According to Steiner the task of modern initiation is not simply to gain a consciousness of what was lost from dreaming-sleep. It went a stage further. It was concerned with the recall of what once lived in men's souls before earthly existence. This recall of life among spiritual beings can be done in pictorial images as well as concepts and ideas. We can enter this world through imagination and inspiration.

The Goetheanum as a Modern Mystery Temple

Steiner built the Goetheanum as a modern temple. He wanted it to provide experience of initiation suitable to the temper of the day and age. He wrote four mystery plays to provide guidance for the spiritual seeker. These were:

- The Portal of Initiation
- The Guardian of the Threshold
- The Soul's Probation and
- The Soul's Awakening

Gary Lachman in his *'Rudolf Steiner'* provides a non-anthroposophical critique of Steiner's beginning attempts to provide 'pure, spiritual art':

'the plays, for my taste at least, suffer from being heavy on message and light on movement. There are many long speeches, and what there is of action seems to consist of the characters' engaging in extended arguments about the need for a new spiritual vision.'

(see p. 165)

SELECTED REFERENCES

- Ahern, Geoffrey; *Sun at Midnight – The Rudolf Steiner Movement and Gnosis in the West*; James Clarke and Co; 2009.
- Freke, Timothy and Gandy, Peter: *The Jesus Mysteries*' Thorson, 2000.
- Lachman, Gary; *Rudolf Steiner*; Jeremy P. Tarcher; Penguin; 2007.
- Picknett, Lynn and Prince, Clive; *The Templar Revelation*; Corgy Books; 1998.
- Steiner, Rudolf; *Mysticism At The Dawn of the Modern Age*; Trans. Karl Zimmer, Intro. Paul M. Allen; Blauvelt, N.Y. Garber Communications, 1960.
- Steiner, Rudolf; *Mystics of the Renaissance and their Relation to Modern Thought*; Trans. Bertram Keighley; N.Y., 1960.
- Steiner, Rudolf; *The Occult Movement in the Nineteenth Century and its Relation to Modern Culture*; Trans. D.S. Osmond and Charles Davy, London; 1982.
- Steiner, Rudolf; *Mystery Knowledge and Mystery Centres*; Trans. E.H. Goddard and D.S. Osmond, London, 1973.
- Steiner, Rudolf; *The Mission of Individual Folk Souls in Relation to Teutonic Mythology*; Trans. A.H. Parker, London, 1970.
- Steiner, Rudolf; *Egyptian Myths and Mysteries*, N.Y., 1971.
- Steiner, Rudolf; *Christianity as Mystical Fact (Christianity and Occult Mysteries of Antiquity)*; Trans. Charles Davy and Adam Bittleston. London, 1972.

7. The Sensible World

An Alternative to Empiricism

As a person with an educational background in science and technology, Rudolf Steiner had nothing to be ashamed of in regard to his scientific credentials. His investigations and research into the scientific studies of Goethe forced him to re-examine the philosophical foundations of scientific methodology. It was his re-examination of these foundations that produced an altogether different science and an epistemology which did not depend on John Locke or British Empiricism.

Steiner's Epistemology.

Steiner's epistemological underpinnings agreed with Goethe. He and Goethe challenged the scepticism of Kant's claim that we cannot get beyond man's perceptions to know 'the thing in itself'. Goethe and Steiner regarded man as spirit and part of nature as spirit. They did not separate object and idea. The idea is expressed in the object. For them 'truth' was a revelation emerging where the inner world of man meets external reality. Truth was a synthesis of world and mind. Truth was not 'out there' but 'in here'. It was revealed when the mind and the outer world were brought together in harmony. Thought was in man as well as in nature. When man contemplated the natural world it thought in him because man shared the same 'substance' as nature.

Two Aspects of Steiner's Epistemology

The following elements of Steiner's epistemology underpin his scientific approach.

- (i) **thoughts** are the product of an activity that precedes them. Thinking comes even before the distinction between subject and object. It is the ACTIVITY of THINKING which links perception and concept.
- (ii) there are **twelve senses** which can be differentiated. These are related to each other in different ways.

Thinking as a Organ of Perception

In *Goethe the Scientist*, Steiner explains: -

As colour is to the eye and sound is to the ear, so are concepts and ideas to thinking. THINKING IS AN ORGAN OF PERCEPTION.

(see Page ix)

He illustrates his meaning by an explanation:

One need only recall how, after a strenuous bout of thinking, when the concept for which we are searching at last appears, we invariably say, "Ah, Now I see!" to realise that perceiving (in this case perceiving concepts) is closely interwoven with thinking.

(Quoted from *The Essential Steiner*, p. 370).

and

Rudolf Steiner attained the realisation that the outer world does not hold the entire contents of reality.' Man is born to unite the contents of his own thought with the thought expressed in nature.

*It is through the thinker that thinking is linked to observation. **Human consciousness** is the stage where concept and observation meet and are connected to one another. It is the mediator between thinking and observation.' Thinking is beyond subject and object. It is not the subject who introduces the relationship but thinking. Man's own thought is part of the evolutionary processes of creation.*

see *Fruits of Anthroposophy* trans. by A. Meuss
and Introduced by R.G. Seddon, p. 9 and 10

Re-examining Sensation, Perception and Ideation

Steiner's scientific investigations began with distinguishing between percept and concept and the part played by the activity of thinking. He deviated from British Empiricism by positing twelve senses in six polarities. These included four physical senses, four soul senses and four spiritual senses. The insights that Steinerian science developed were based on a distinctive epistemological foundation. They also embraced a Goethean respect for art and imagination. Steiner also believed that a different methodology had to be used for the investigation of the physical world, the biological world and the psychological world.

The Twelve Senses as Six Polarities

THE TWELVE SENSES AS SIX POLARITIES	
THE FOUR PHYSICAL SENSES	THE FOUR SPIRITUAL SENSES
1. TOUCH Determining one's boundaries	12. EGO SENSE Breaking through another's boundaries
2. LIFE SENSE Growth and decay of own constitution	11. CONCEPTUAL SENSE Truth/falsehood in spirit of another
3. SELF-MOVEMENT SENSE Handling/expressing oneself through body	10. LANGUAGE SENSE How another handles/expresses the spirit: through speech
4. BALANCE Gravitational orientation	9. HEARING Rising to the spirit of matter
THE FOUR SOUL SENSES	
5. SMELL Emptying oneself and being filled (materially)	8. TEMPERATURE SENSE Pouring out into the world with one's interest (non-materially)
6. TASTE Controlling the ponderable: what forms my body (microcosm)	7. VISION Experiencing the imponderable (effect of sunlight) in the macrocosm

Physical, Soul and Spiritual Senses

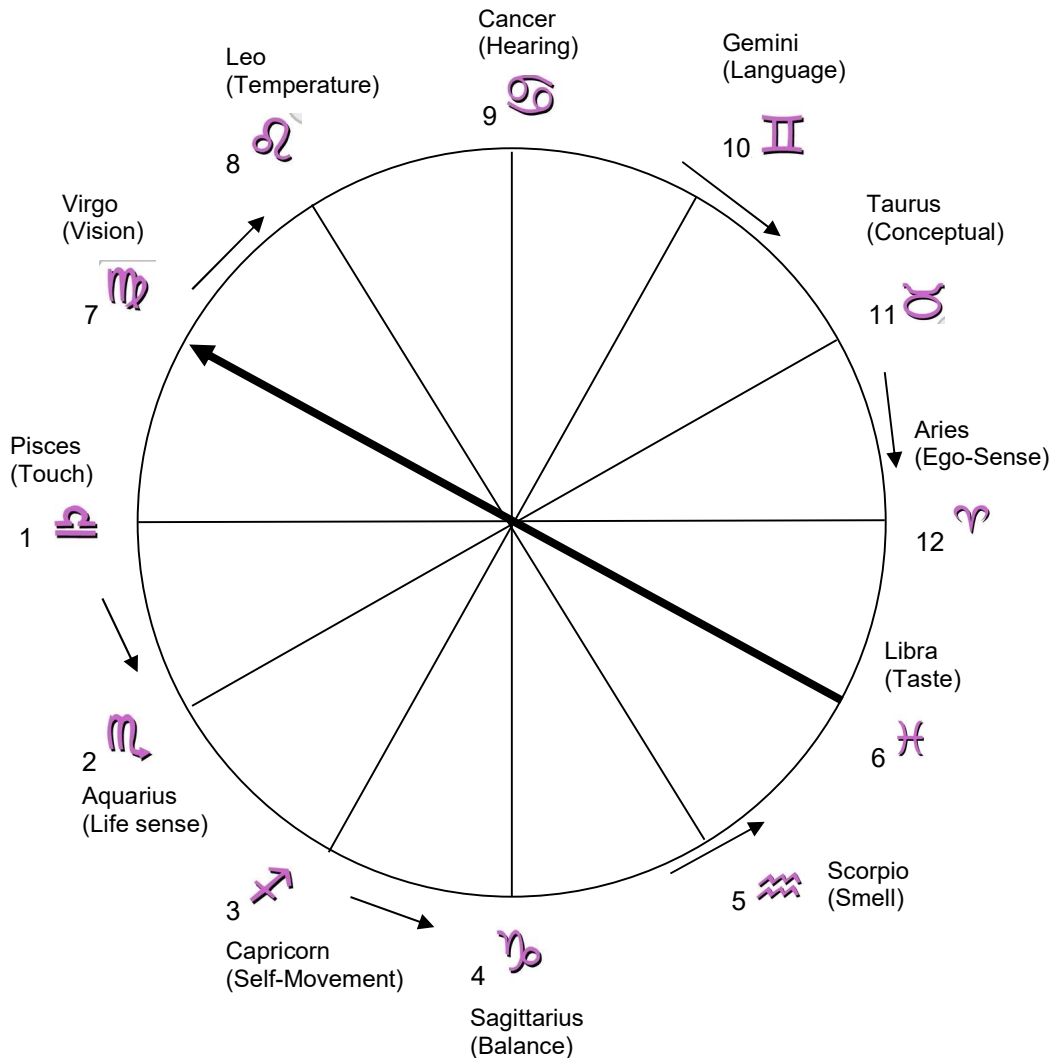
The Physical senses are Touch, Life Sense, Self-movement and Balance. The Soul senses are Smell, Taste, Vision and The Temperature or Warmth Sense. The Spiritual/Social Senses are Hearing, Language sense (word, speech sense), Conceptual Sense (thought sense) and the Ego Sense.

Relationships, Processes and Forces

Relationships, Processes and Forces are inferred not observed. They are perceived by the activity of thinking. Thinking is an organ of perception according to Steiner.

The Senses as a Twelve-Fold Cosmic Egress

Steiner expressed this thought in the following diagram:

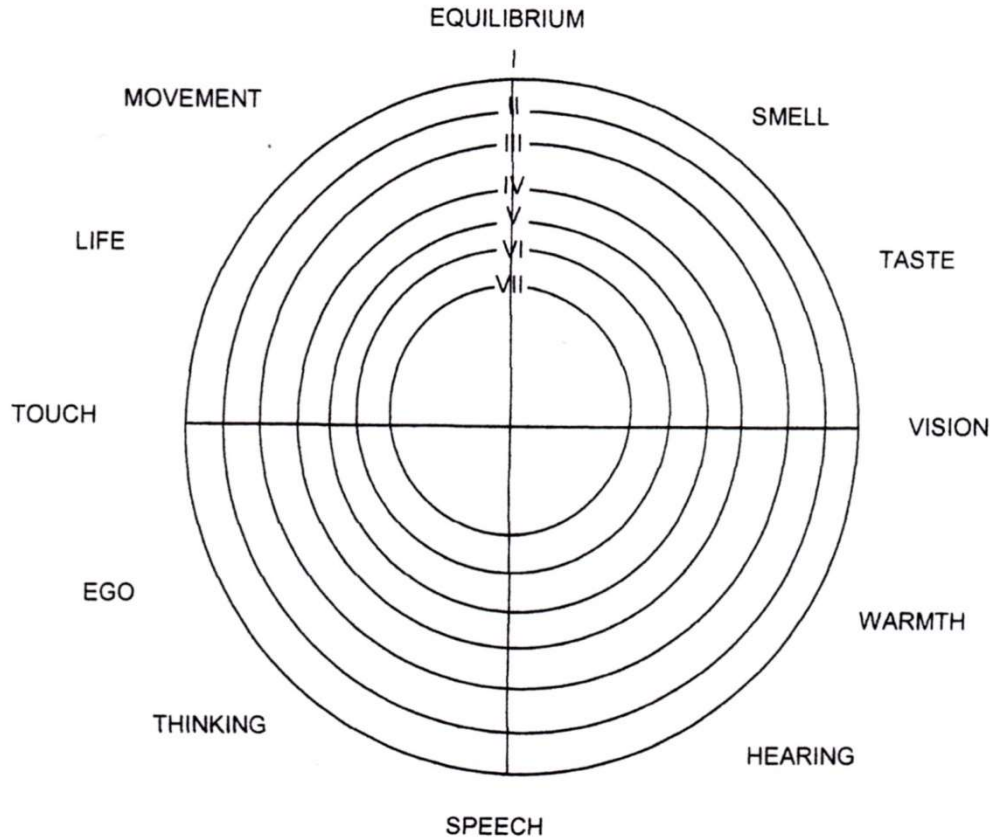


Steiner's Criticism of Modern Scientific Methodology

Steiner gradually came to the realisation that the methods of natural science were based on a false idea of 'matter'. For Steiner matter was visible spirit and form was frozen process. He not only understood that space was polaric but that time itself had three modalities, viz. causal, teleological, and an in-between modality of reciprocal causality. For Steiner thoughts were not the product of matter but rather their moulders. Life was a property of form and modern biology had attempted to erect a science by ignoring the 'livingness' of the organic world. Moreover, man was not at the apex of the evolutionary order, he was the compendium of the animal kingdom.

Anthropos and Cosmos

(Metamorphosis of the Sense-system and the Life Functions)



i	Breathing	v	Conservation
ii	Warming	vi	Growth
iii	Nutrition	vii	Reproduction
iv	Elimination		

Steiner accepted the relationship between microcosm and macrocosm very literally. This diagram represents his effort to depict the cosmos of man's life-functions and his sense systems.

The Perception of Spirit Realities

A.P. Shepherd comments on the way in which Steiner's thinking went beyond that of Goethe:

'In his investigation of Goethe's scientific writings, Steiner followed him in his spiritual – scientific approach to the world of sense, until at length his own wider powers of spirit – perception became able to take the same path, and to pursue it much further. Steiner's consciousness began to break through to spirit realities behind the world of minerals, plants, animals, and men, in a knowledge in which his whole being – thought, feeling and will – participated. It was still thought that was leading him to the world of spirit, but in the process thought itself was transformed into a higher form of perception.'

A Scientist of the Invisible pp. 53-54

SELECTED REFERENCES

- Soesman, Albert; *Our Twelve Senses – Well springs of the Soul*; Foundation of Human Wisdom Series, Hawthorn Press, Bath, UK; 2001.
- Steiner, Rudolf; *The Riddle of Humanity*; Rudolf Steiner Press; London; 1990
- Steiner, Rudolf; *The Philosophy of Freedom*; Rudolf Steiner Press; London; 1973
- Steiner, Rudolf; *The Redemption of Thinking*; Hodder and Stoughton; 1956

8. The Supersensible World

An Occult Science

Rudolf Steiner's major work '**An Occult Science**' is either dismissed or ignored by orthodox scientists. It can easily be presented as an **alternative science** because it claims to be concerned with inner life rather than the outer life. This is only partly the truth. It may be presented as an **extension** of the scientific investigation of the natural world. This latter view is closer to the truth. Rudolf Steiner was a scientist of the natural outer world as well as a scientist of the inner world of man. He understood the outer and inner world as a unity but requiring a spectrum of methodologies to discover their hidden relationships. For Steiner, matter was visible spirit.

1

Scientist of the Outer (Natural) World

Steiner's undergraduate studies were in mathematics, physics and chemistry. He extended his studies to zoology, botany, biology, geology, synthetic geometry, pure mechanics and medical studies. All the while he sought for an epistemological foundation for investigation. He had read Kant's philosophical books and did not agree that man could never know 'the thing in itself'. For Kant, man could only have knowledge of his perceptions.

Fichte's Wissenschaftslere

Steiner was impressed by **Fichte's Wissenschaftslere's** theory of Science:

'And yet I had my own opinions, so I took his volume and rewrote it page by page.'

At age 18 Steiner is reported as saying:

*'My strivings after conceptions in natural science had finally brought me to see in the activity of **'The Human Ego', the sole starting point for true knowledge.***

Richard Seddon, *Philosophy of the Spirit* (p 11)

Thinking about Thinking

The observation process involves **sensations, percepts** and **concepts**. Steiner begins his investigations of the natural world with the assumption that the concept was hidden in nature and could only be apprehended by the thinking of man. **This thinking process was a spiritual activity undertaken by the ego of man.**

Steiner understood the process of observation as a combining of sensory percepts with the observer's store of concepts. Thinking relates the single concept to the total world of ideas. This, in turn, can lead to an expression of a law.

Steiner's Twelve Senses

Steiner emphasised the importance of sensory input into knowledge but his number of senses included four soul senses and four spiritual senses as well as four physical senses (see Section 7). However sensory inputs are only one element of the observation process. When the sensory inputs are received by 'the individual' they become sensory-percepts. 'The individual' who makes sense of the percepts is the 'ego' of the person, i.e. his thinking. Thinking lies beyond subject and object. In fact it produces the idea of this dichotomy. Thinking is a spiritual activity which lies beyond the boundary of the object and of the self.

Goethean Science

Steiner edited the scientific works of Goethe for the Kuerschner Edition of German Classics. He did this from 1890 – 1897. In 1889 he had received his Doctorate of Philosophy in Rostock. This meant that he had his own independent thoughts before studying Goethean science in depth. In fact, he found a great deal of confirmation of his own views when he examined Goethe.

2

Elements of Steiner's Scientific Methodology

Steiner's scientific methodology owes much to **Goethe, Fichte** and **Schiller** and the precursors of modern scientific materialism. Notwithstanding, his ideas have a uniqueness that cannot be gainsaid. The following characteristics may be noted:

- Science investigations should take **the wholeness of nature** into account and not simply examine it by fragmenting its parts. Since the whole includes **beauty** and **morality** these **qualities** are as important as the **quantities** of proteins, molecules or neurons. The qualitative aspects of life should not be excluded from scientific observations. If they are excluded the findings will be distorted and produce unintended consequences.
- The natural world is not explicable in terms of one mode of thinking. The **causal mode** is more appropriately applied to the inanimate world of physics and chemistry. In this world events are determined by **the past**. The **correlative mode** is more appropriately applied to the animate world of biology. In this world events are determined by **the present**. The **teleological mode** is more appropriately applied to the mental world of psychology. In this world behaviour can be determined by **future goals**. Steiner warned that the employing of an inappropriate mode would lead to a distortion in understanding.
- Steiner anticipated 'The Tao of Physics' by Fritjof Capra but also applied the **principle of polarity** to other aspects of nature (see Section 10). Often polarities are mediated by a **third term which is mediatorial**. Thus a line is the mediator between the point and the plane. Again the pulmonary system is the mediator between the head and limb-digestive system. This '**three-folding**' is a principle of reality that emerges time and time again in Steiner's teachings.
- True science is a process of elucidating the truth. It is not about finding the truth once and for all. It is not over-concerned about proving anything. That concern is a legal matter not a scientific one. The nature of reality and evolution is concerned with '**becoming**' and this process can only be understood by an **ego** which is also in a state of '**becoming**'. This is the reason why Steiner adopted the insights of Goethe and extended the application of the principles of **Metamorphosis**.
- **The activity of thinking is a spiritual process** which provides entry to the spirit in the natural world and the hidden processes of creation. True thinking is unitive with nature and may often reveal relationships hidden from sense percepts.
- True science seeks to investigate reality not only by logic and experimental testing. It does so by employing '**a reason only acquired when intellectual reason has passed over into artistic perception**'. Science embodies truths which are also beautiful and moral.

3.

Scientist of the Inner Spiritual World***The Importance of Morality***

For Steiner there is an outer world and an inner world. Both worlds can be investigated 'scientifically'. The investigation of either world requires a mode of investigation appropriate to the nature of that world. The method chosen by Steiner for the investigation of '**higher worlds**' is one firmly ground in morality:

'For every one step you take in the pursuit of higher knowledge, take three steps in the perfecting of your character.'

(Knowledge of Higher Worlds pp 139)

Six Moral Conditions for Investigating

The meditative path chosen by Steiner will lead to the development of **new sense organs** if one observes:

- thought control
- initiative in action
- attainment of composure
- remaining positive
- openness to different points of view
- achievement of inner balance

The Contribution of the Four 'Bodies' of Man

The four 'bodies' of man provide the opportunity for the acquisition of higher and higher forms of knowledge:

- from the **physical body** one receives **Sensory Knowledge**
- from the **etheric body** one receives **Imaginative Knowledge**
- from the **astral body** one receives **Inspirational Knowledge**
- from the conscious experience of the '**I**' (or the spirit) one receives **Intuitive Knowledge**.

The Natural World as Visible Spirit

The development of knowledge of the higher worlds results in 'sense-free thinking'. When one develops the moral strength to enter into these higher worlds one discovers that they are in reality, an extension of the sensible world. The natural world is, after all, visible spirit.

SELECTED REFERENCES

Steiner, Rudolf; *Knowledge of Higher Worlds and its Attainment*; Trans. Henry B. and Lisa D. Monges; N.Y., 1947.

Steiner, Rudolf; *Theosophy: An Introduction to the Supersensible Knowledge of the World and the Destination of Man*; 4th Ed. Trans. M. Cotterell and A.P. Shepherd; London, 1970.

Steiner, Rudolf; *An Outline of Occult Science*; Trans. H. Monges; Anthroposophic Press, Hudson; N.Y.; 1972.

Steiner, Rudolf; *The Riddles of Philosophy*; Steiner Books / Anthroposophic Press USA; Reprint 2009

Seddon, Richard; *Philosophy as an Approach to the Spirit*; Temple Lodge; 2005

9. Steiner – A Mathematician of Some Brilliance

Modern Synthetic Geometry – a Key to His Thought (See also Section 29)

There are many anthroposophists who have little idea that Steiner was a mathematician of some brilliance. Indeed, mathematics was, for Steiner, akin to the spiritual world since it did not depend on the world of senses.

At an early age, Steiner acquired an appreciation and a mastery of the principles of modern synthetic geometry. In the subsequent course of his life he was able to see applications of the polar point-wise/plane-wise principle in the natural world – especially in botany and agriculture. With his artistic mind, Steiner extended his applications of synthetic geometry to homeopathic remedies and to theoretical physics and astronomy. In many respects, Steiner's insights from synthetic geometry underpin his statements about the relationship of the microcosm to the macrocosm.

Steiner and Immanuel Kant (1724-1804) on the Origins of Mathematics and Physics

Rudolf Steiner explains his difference from the Kantian view:

The philosopher Kant says of the truths of mathematical science that they are a priori. By this he means that they are attained before external, empirical knowledge and experience. This is so much lip-wisdom. Kant's a priori really says nothing. The expression has meaning only when we realise, through spiritual-scientific knowledge, that mathematics comes from within ourselves, rises into consciousness from within our own being. And where does it originate? In the experiences through which we passed in the spiritual world before conception, before birth. We were living then in the great universe, experiencing what it was possible to experience before we possessed bodily eyes and bodily ears.

(See 'The Festivals and their Meaning, p.82)

Steiner saw the essential unity of thinking in man and in the outer world. This was because both man and the natural world had a common spiritual component. Steiner sought to explain the essential interdependence of astronomical relationships to the formation of man and the kingdoms of nature.

Euclidean and Non-Euclidean Geometries

The following points may provide a brief introduction:

- (i) Euclidean geometry is a point-wise geometry. For example, a line is defined as the path of a moving point. Modern synthetic geometry, on the other hand, is a plane-wise geometry. For example, a line would be defined as the intersection of two planes;
- (ii) The sphere mediates between the point and the plane. This can be understood from either form of geometry. If a sphere is uniformly imploded it becomes a point at infinity. If a sphere is uniformly exploded it becomes a plane at infinity;
- (iii) The line is related equally to points and planes. As points are to planes, so are planes to points. Point, line and plane form a trinity with point and plane representing polar opposites, and line, the intermediate (or balancing factor). For example, any three planes not all in the same line will generate a point. Similarly any three points not in a line will generate a plane;
- (iv) The two infinitely distant points in the opposite directions of a line are identical;
- (v) Perspective transformations occur when a plane figure is projected from one plane onto another. Thus the cone of light from a lamp with a circular aperture can be 'projected' to appear as an ellipse, parabola or hyperbola. Such transformations are akin to Goethean processes of metamorphosis.

- (vi) The post-Euclidean geometry introduces the notion that a point can be regarded as the intersection of a number of planes of infinite extent. It may thus be said that the ideal point is of INFINITE CONTENT.

A Mobile Form of Thinking

It was Steiner's immersion in the 19th century discovery of the new planar geometry and its application to Goethean thought that introduced a wonderfully mobile form of thinking. This new style of thinking underpins many of Steiner's new insights. One of Steiner's most quoted aphorisms was the injunction **to think the extensive, intensively, and the intensive, extensively.**

George Adams, Olive Whicher and Ernst Lehrs were devoted pupils of Steiner and they 'fleshed-out' a number of applications of the new geometry. These applications included an exploration of gravity-levity, space-counterspace, pressure-suction, light-darkness and so on. These dyadic relationships gave recognition to the underlying polarity of space. Steiner's application of the properties of the Curves of Cassini and the lemniscate enabled him to investigate the geometry of space in a new way.

Space and Counter Space

The following note is an excerpt from <http://www.nct.anth.org.uk/counter.htm> 24/04/2017:

Counter space is the space in which subtle forces work, such as those of life, which are not amenable to ordinary measurement. It is the polar opposite of Euclidean space. It was discovered by the observations of Rudolf Steiner and described by Louis Locher-Ernst. Instead of having its ideal elements in a plane at infinity it has them in a "POINT at infinity". They are lines and planes, rather than lines and points as in ordinary space. We call this point the counter space infinity, so that a plane incident with it is said to be an ideal plane or plane at infinity in counter space. It only appears thus for a different kind of consciousness, namely a peripheral one which experiences such a point as an infinite inwardness in contrast to our normal consciousness which experiences an infinite outwardness.

Nick Thomas has explored the ideas that objects existing in both spaces at once are subject to strain and stress, and an analysis of these leads to new approaches to gravity and other forces.

SELECTED REFERENCES

- Adams, George; *Physical and Ethereal Spaces*; Rudolf Steiner Press; London, 1965.
- Adams, George; *The Plant between Sun and Earth*; Goethean Science Foundation, Clent, Worcestershire; 1952.
- Lehrs, Ernst; *Man or Matter*; 3rd Edit. Revised and Enlarged; Rudolf Steiner Press; 1958.
- Locher, Ernst; *Space and Counterspace – An Introduction to Modern Geometry*; The Association of Waldorf Schools of North America; 2003.
- Steiner, Rudolf; *Interdisciplinary Astronomy 3rd Scientific Course*, Trans. By F. Amrine; Steiner Books; 2020.
- Thomas, Nicholas; *Space and Counterspace*, Floris Books; 2000.

10. Polarities

Sense Polarity

In Steiner's examination of the twelve senses (see Section 7) we noticed that he had them organised into six polarities so that the four **physical** senses were arranged about a wheel in such a way that they were opposite to the four **spiritual** senses. The four **soul** senses were also arranged as opposite pairs.

Colour Polarity

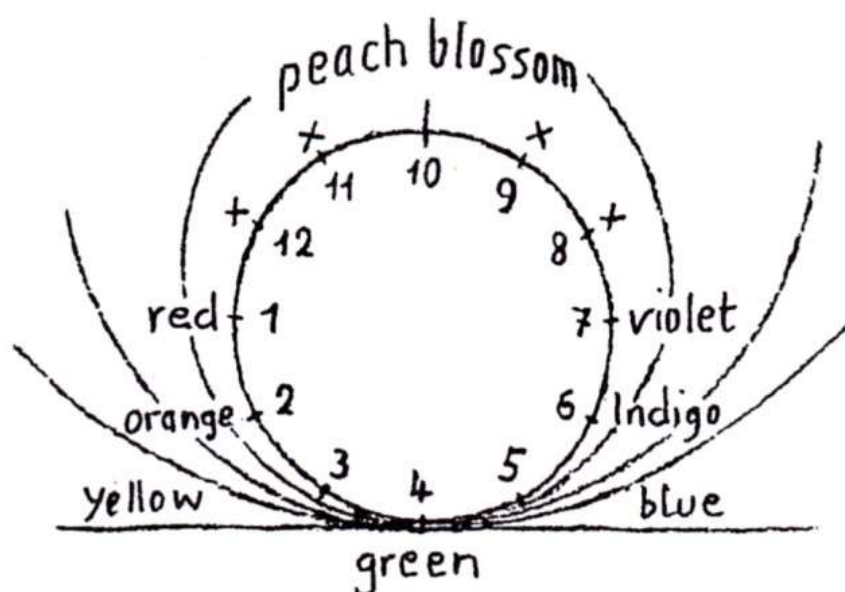
Similarly, Goethe also found that the linear spectrum of Newton could be arranged into a colour wheel or circle which revealed hidden polarities.

THE LINEAR SPECTRUM

INFRA RED	RED	YELLOW	GREEN	VIOLET	ULTRA- VIOLET
		ORANGE		BLUE	

The linear spectrum has no boundaries and extends from red to infra-red in one direction and from violet to ultra-violet in the other. These infinite boundaries can, according to projective geometry, find a common meeting point at infinity. To illustrate this diagrammatically the linear spectrum can be bent into a circle.

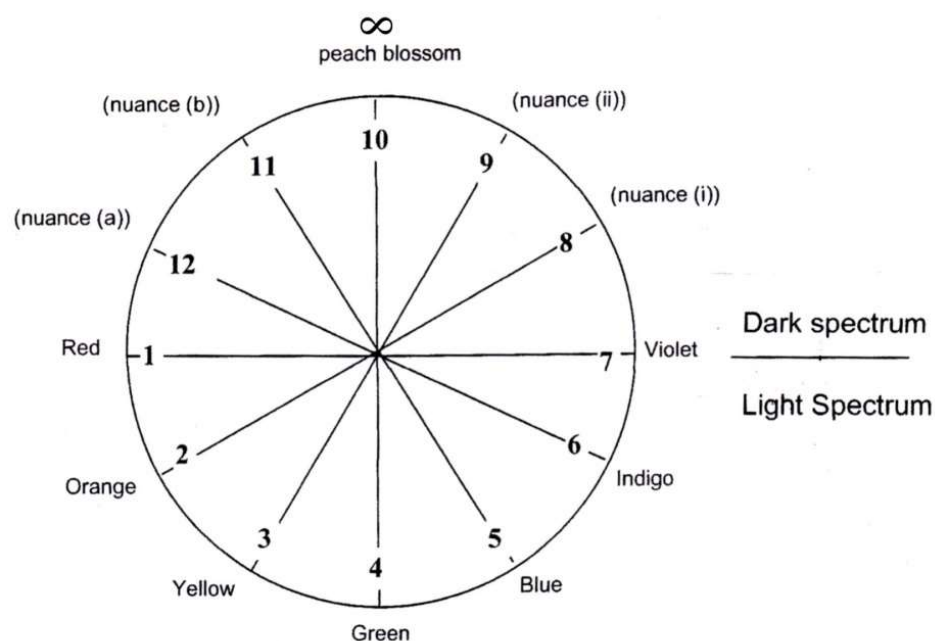
Changing the Seven into Twelve by Bending the Linear Spectrum



In this circular arrangement, where infra-red and ultra-violet meet at infinity, another colour, peach blossom, or magenta, appears. It lies opposite green and is its polar opposite. Goethe showed that the linear spectrum conceals the real nature of colour which hovers between the material and non-material. In fact, when we examine the colour circle we discover that there are 12 colour conditions, not 7. (see Steiner's 'Warmth Course', Lecture 8)

The Colours of the Cosmic Circle

Goethe found that by bending the linear spectrum of colours into a circle so that both the lightness and darkness are given due weight, another colour is formed opposite green. This 'new' colour is variously known as 'peach blossom' or 'purpur' or 'magenta'.



The Second Rainbow

In reality there is never a single rainbow. A second rainbow is always present even if it is not obvious. Steiner enjoins the student of optics to consider the clearer rainbow and the accessory rainbow as a unified phenomena. When this is done we see again that there are 12 colours. The accessory rainbow may be considered as a kind of mirror image of the first. It is a reflection, so to speak, of the clear rainbow. Steiner uses the rainbow and its reflection as an image of an underlying process in nature which gives a basis for real thinking. Steiner understood the nature of matter in an analogous manner where, on a wheel arrangement, the heat region acts in a boundary situation between substantiality and insubstantiality.

Polarity of Man's Cephalic and Digestive Limb System

Steiner described man as both a unified system and a tri-partite one. His three-foldedness related to his cephalic or head system, his pulmonary/circulatory or rhythmic system and his digestive/reproductive/limb system. The first and third system had a polar relationship and this relationship was mediated by the second system. Man achieved health when these three systems were harmonised or balanced.

Metaphors of Polarity

The metaphor of north/south is imaged time and again in physics, geometry and allied fields e.g.

light	-	darkness
pressure	-	suction
condensation	-	rarefaction
expansion	-	contraction
gravitation	-	levitation
anode	-	cathode
systole	-	diastole
nerve	-	blood

Such geometrical expressions as

point	-	plane
radial	-	spheroidal
centre	-	circumference
centripetal	-	centrifugal
inscribed	-	circumscribed

also express a polaric relationship. Such a relationship is also evident in the relationships of the perfect solids to each other.

Polar Relationships of Perfect Solids

Solid	No. of Surface	No. of Vertices	No. of Edges
Tetrahedron	4	4	6
Cube	6	8	12
Octahedron	8	6	12
Dodecahedron	12	20	30
Icosahedron	20	12	30

Notes:

1. The relationship between the circumscribed tetrahedron and the figure drawn from the inscribed sphere at the tangential intersection points is pictured as an inverted tetrahedron. It is its own self-image or polar reciprocal!
2. Similarly, an octahedron can be formed in the inscribed sphere of a cube while a cube can be formed in the inscribed sphere of an octahedron.
3. Likewise a dodecahedron can be formed in the inscribed sphere of a Icosahedron and a dodecahedron can be formed in the inscribed sphere of an icosahedron.

Microcosm and Macrocosm

Steiner taught that man was a miniaturised version of the universe. Man is born out of the whole world. The whole world lives in his physical, etheric and astral bodies and, to a more rarefied extent, in his ego. Man bears within him the whole history of the earth's evolutionary processes. In a sense, man is a polar image of the cosmos.

SELECTED REFERENCES

- Adams, George; *Physical and Ethereal Spaces*; Rudolf Steiner Press; London; 1965.
- Davies, Paul; *About Time – Einstein's Unfinished Revolution*; Viking; 1995 (see pps. 196-199).
- Hauscha, Rudolf; *Nutrition*; Trans. Marjorie Spock and Mary T. Richards; London, Vincent Stuart and John M. Watkins; 1967.
- Zukav, Gary; *The Dancing Wu Li Masters – An Overview of the New Physics*; Rider; 1978.
- Steiner, Rudolf; *Warmth Course*; Mercury Press, Spring Valley; N.Y.; 1988.

11. The Principles of Metamorphosis are Key Concepts

Rejection of 'Outside Onlooker' Paradigm

Steiner was thoroughly familiar with Goethe's qualitative and phenomenological approach to natural science. Goethe's approach to examining nature accepted the idea that the observer participated in the observation. He rejected the idea of an 'outside onlooker'. Goethe went even further:

'Man in himself, in so far as he uses his healthy senses, is the most powerful and exact physical apparatus there can be.'

Goethe knew what quantum physicists are only now discovering: the observer, in the very act of observing, influences and participates in the observation.

Three Goethean Principles of Metamorphosis

- **Anschauende Urteilskraft**

The concept of 'Anschauende Urteilskraft' may be translated as 'perceptive judgement', i.e. a combination of perception and valuing.

'For Goethe seeks the explanation of something living, not merely in the logically thought-out relationship of cause and effect, but through what he calls 'anschauende Urteilskraft', i.e. perceptive judgement.'

(The Plant Between Sun and Earth, George Adams and Olive Whicher, p. 35).

- **The 'Urflanze'**

Another one of Goethe's perceptive observations concerns his idea of the 'Urflanze' or 'Archetypal plant'. He proclaimed the idea that the plant kingdom appeared as a single mighty plant. The Ur-plant had various geological manifestations as fern-tree, coniferous tree, palm tree and as dicotyledon but each type manifested the same parts. These four manifestations were expressions of an underlying unity. They were examples of the principles of metamorphosis working in nature on a grand scale.

'We note that tree formation occurs successively at four different levels – as fern-tree, as coniferous-tree at the stage of the gymnosperms, as palm-tree at the stage of the monocotyledons, and lastly in the form in the species of the leaf-trees at the highest level of the plant kingdom, the dicotyledons. The ur-plant achieved these various tree formations successively.'

(See p. 92 Man and Matter by Ernst Lehrs)

- **'Steigerung'**

A third holistic observation of Goethe was his recognition of three successive rhythms of expansion and contraction in the life-history of the flowering plant. 'In this climbing up the spiritual ladder Goethe learned to recognise one of nature's basic principles. He termed it 'Steigerung' (heightening).

'Morphology' and 'The Metamorphosis of Plants'

Goethe was also very much concerned with aspects of botany. He wrote two extensive essays, 'Morphology' and 'The Metamorphosis of Plants'. Goethe perceived that the leaf is the pro-typic shape of all of the plant's foliage:

'It dawned on me', writes Goethe in a letter to Herder, 'that in the organ of the plant ... (called) leaf ... lies hidden in all formations. FORWARD OR BACKWARD, THE PLANT IS EVER LEAF and ONLY LEAF. The leaf undergoes manifold variation and metamorphosis: it appears time and again, in

cotyledon, stem-leaf at different stages and development, sepal, petal, stamen and carpel.'

(p. 39, *Nature Ever New*, George Adams)

Indeed, when viewed PERCEPTIVELY the shape of the whole tree is a leaf!

When Goethean thinking is combined with planar geometry the outcome is the forging of a remarkable intellectual tool of great heuristic power.

Focus on the Celestial Periphery of Space

With Steiner it is necessary to understand polarities such as expansion/contraction, light/darkness, space/counterspace and so on. The polarities of pure geometry viz. point/plane may, likewise, be applied to understanding the manifold forms of the organic world. This understanding is won, not from focussing on the point, or atom, but on the celestial periphery of space.

'Study the processes of growth and embryonic development in their early stages – invaginations, folding and the like and we shall find the typical formations determined without exception by the contours OF THE OUTER SURFACE, NOT BY THE INTERNAL STRUCTURE.' (*The Plant Between Sun and Earth*, George Adams and Olive Whicher, p. 36).

Changing Interplay of Polarities

And again, from the same work:

'Metamorphosis is possible in the changing interplay of polarities.' (ibid p. 37).

Thus Steiner had no difficulty in 'seeing' the butterfly as a composite plant, with root, stem, foliage and bud secretly incorporated into a separate morphological entity. The caterpillar belongs to the foliage, the chrysalis (pupa) to the bud, and the finished insect (imago) to the unfolded blossom. Hermann Popplebaum, in applying his Goethean thinking in his *New Zoology*, also had no difficulty in viewing the insects:

'as a realm of ennobled shapes, arise from the worm region. They are the blossoms of the worm world. The genuine worms on the other hand, appear as a realm which has sacrificed higher perfection.' (*New Zoology*, p. 52).

Furthermore:

'What the worms give to the soil, the imprisoned larva of the brain gives to the human entity.' (p. 56).

For Steiner the soul activities of fantasy, exact imagination, recollection, and perception are the etheric correlates of the hatching of insect imagoes on their different levels.

Metamorphosis of States of Consciousness

Perhaps it is beyond the comprehension of most to extend the application of 'metamorphic thinking' as far as Steiner's disciple Guenther Wachsmuth does when he asserts:

'The existence of man in the cosmic and earthly spheres is a continuous metamorphosis of states of consciousness.' (*Re-incarnation*, p. 58).

One of Steiner's often used examples of metamorphic thinking is his claim that the outer surface of the skull-bone can be transformed to the inner surface of a tubular bone through a process of turning-inside-out'. To this example of form he extends his thinking to allow for the principles of metamorphosis to be applied to functional processes within the human body.

Reincarnation as the Archetype of Metamorphosis

Steiner universalised the phenomenon of metamorphosis and saw its application throughout the kingdoms of nature. He went further and taught that what happened to man through his repeated earth lives had its echoes in the lives of animals and plants and minerals. Although they were not destined to be reincarnated as man is, their processes of development were not only analogical but homologous.

While man was subject to moral freedom of thought and action which led to his individuation and the development of an Ego-Sense these qualities could be found in the Astrality of animals and the Ethericity of plants. However the individual animal shared a common fate and was subject to a herd instinct. The plant's movement was restricted to internal rhythms and its blossoms were images of moral qualities.

Popplebaum summarises:

'We recognise that metamorphosis culminates in man, and that all its other forms are only reflections or simulations of this'.

*(Metamorphosis and Reincarnation, p. 154
of The Battle of a New Consciousness.)*

SELECTED REFERENCES

- Adams, George; *Plant Growth and Forms of Space*; Article in George Adams Interpreter of Rudolf Steiner; Henry Goulden Ltd, Sussex, 1977.
- Adams, George and Whicher, Olive; *The Plant Between Sun and Earth*; Goethean Science Foundation, Clent; Worcestershire; 1952.
- Bockemuhl, Jochen (ed); *Towards a Phenomenology of the Etheric World – Investigations into the Life and Nature of Man*; Esp. The Formative Movements of Plants pp. 131-161; Anthroposophic Press, Inc, N.Y, 1985.
- Lehrs, Ernst; *Man or Matter*; 3rd Edit. Revised and Enlarged, Rudolf Steiner Press; 1955.
- Popplebaum, Hermann; *A New Zoology*; Philosophic – Anthroposophic Press; Dornach, Switzerland, 1961.
- Popplebaum, Hermann; *The Battle for a New Consciousness* (Esp. Metamorphosis and Reincarnation, pp. 140-155).
- Steiner, Rudolf; *Man As Symphony of the Creative Word*; Rudolf Steiner Publishing Co, Bloomsbury St., W.C.I., 1945.
- Wachsmuth, Guenther; *Reincarnation as a Phenomenon of Metamorphosis*; Trans. Olin Wannamaker; N.Y.; 1937.

12. A Polar Relationship between Astronomy and Embryology Man as a Child of the Universe

Rudolf Steiner would have been pleased to hear the words of the modern song which declares: 'I am a child of the universe'. However, for Steiner, this sentiment would not only be an intuitive poetic reflection but also a literal fact.

'If you understand nothing of astronomy you will never understand the forces which are at work in embryology, and if you understand nothing of embryology, you will never understand the meaning of the activities with which astronomy has to deal. For these activities appear in miniature in the process of embryology.' (*The Relation of the Diverse Branches of Natural Science to Astronomy- 18 lectures, Rudolf Steiner, Stuttgart, 12 Jan 1921: Lect. 1.19*)

The Nature of Anthroposophy

Anthroposophy, or Spiritual Science, seeks to unite the spirit in man with the spirit in the universe. It asserts they are of one nature. This teaching is expressed in the Hermetic dictum: 'The microcosm (man) is a reflection of the macrocosm (cosmos).' Steiner sought to explain the way in which these relationships could be understood. In his explanations he highlighted hidden relationships to man by invoking the concept of force. He utilized the geometry of Reimann and Lobachevsky to show that space itself could be understood in a manner that would explain the connexion of man to the cosmos. For Steiner 'forces' are not the product of substance. They are its creator. Space is a living entity.

The Geometry of Point and Plane

Euclidean geometry begins with the definition of a point. A point has position but has no magnitude. Riemannian geometry avers that to each point there belong infinitely many planes. The plane is as valid as a starting entity for a geometry as a point. Furthermore the sphere mediates between the point and the plane. If a sphere is uniformly imploded it becomes a point at infinity. If it is uniformly exploded it becomes a plane at infinity. Rudolf Steiner utilized these mathematical concepts to explain the relationships of man to the cosmos.

The New Geometry Generating Seeds of Form

In his *Physical and Ethereal Spaces* George Adams describes space as a form-creating living entity:-

'In the new Geometry we begin to experience space more as a living organism, hence these ideas of Metamorphosis apply. We have already seen what is at work in the original idea of space: the polarity of point and plane. In this polarity we have to deal with infinitely many planes. What matters is their potential interplay by virtue of the line that rays and weaves between the two kinds of entity, creating what we have described as the 'pictures' and the seeds of form'. (See p. 33)

A Multitude of Spaces – Hyperspace and Cyberspace

Most people understand the concept of space as Isaac Newton (1642-1727) did, ie as absolute with neither substance or accidents. Rene Descartes (1596-1650) had already provided a conceptual framework for Newton by analysing space into three mutually exclusive perpendicular planes intersecting at an origin (o). This frame of reference enabled the physicist to track an object in motion. It could be mapped on a grid of co-ordinates.

With Karl Gauss (1777-1855) the beginnings of a non-Euclidian geometry announced a new concept of space. Gauss and Lobachevsky pioneered the idea of curved space. Einstein made use of Riemann's proposition that gravity was a product of curvature in higher dimensional space. He proposed a fourth space-time dimension.

However, hyperspace is not the same as cyberspace. Hyperspace may have 4, 5, 6, 7 or more spatial dimensions. Cyberspace is not subject to the laws of physics nor is it contained within the dimensions of hyperspace

Space and Counterspace

Following the indications of Rudolf Steiner, George Adams and Louis Locher-Ernst turned their attention to modern projective geometry. Their studies led to the formulation of the principles of Space and Counterspace.

In using the principles of this new geometry, Steiner was able to provide explanations for the working of etheric forces. He described them as peripheral forces emanating from counterspace. They were polar to centric forces.

Peripheral Forces (Etheric) and Central Forces

George Adams describes the etheric force as 'intense as it pours inward'. The very notions of 'concentration' and 'dispersal' are turned inside out! ('Nature Ever New'). Hermann Popplebeum reported in an article that Rudolf Steiner first formulated the polarity of the peripheral and central forces in mathematical language in 1921

'Towards A Phenomenology of The Etheric World' (see p217)

Steiner claimed:

'that the etheric forces do not proceed from points in space but rather from the infinite periphery, from a space that is the opposite of the usual one!' (ibid p230)

George Adams provides a useful summary:

'When we begin to understand Nature not only in material but in her cosmic ethereal and spiritual aspect plant and mineral throw wonderful light upon each other'

'Nature Ever New, Plant and Crystal' SE. George Publications, Spring Valley, N.Y.

Dynamical Relationships of Planets

Planets are not only entities. They have relationships in space to each other and to the sun. Moreover, these relationships are constantly changing. They also move in space and have 'spheres' of influence.

Their spheres of influence intersect as ripples in a pond. The moon sphere affects the earth and so do the planetary spheres. They not only influence the earth they also have subtle effects on man. Steiner claimed that the solar system constituted a living entity. Its dynamic movements combined to give birth to all the living forms on earth including man.

What takes place outwardly astronomically is, in man, an inner process. Inasmuch as man moves in the line which is formed by the radius vector describing equal sectors in equal times he continually relates himself to his own sun! For example, the limb-system and skull-system of man are polaric in the same way that radial and spheroidal are polaric in the new mathematics of space.

For Steiner life was a property of form rather than substance.

Bees and the Cosmos

In his delightful series of 9 lectures to the workmen on the first Goetheanum Steiner attributed the life cycle of the bee to the effects of the sun's rotation. He described the differences in the shape or form of the sacs in which queen bees, worker bees and drones mature from larva in terms of 'forces of form'. While the worker bees and the drones develop in hexagonal cells the Queen develops in a shape more like a sac. He then notes that the gestation period for the Queen is 16 days while the worker takes 21 days and the drone 23-24 days. He draws the conclusion that the Queen's; larval life lies entirely within the period of the sun's rotation. The worker bee's larval cycle is equal to the sun's rotation while the drone leaves the influence of the sun forces and enters into the influence of the Earth. Since the drone is the male bee he brings to the task of fertilization the powers of the Earth to unite with the Queen's powers of the Sun. Only one drone can mate with the Queen. He does so by chasing the Queen as she ascends as high skyward to the sun as she can. Steiner's science certainly had an aesthetic aspect!

The Balancing of Earthly and Cosmic Forces

Steiner understood man as a creature of two worlds, i.e. an earthly one and a cosmic one. States of Metamorphosis which affected consciousness occurred in both worlds.

In the earthly realm the states fluctuated between sleep and wakefulness. In the realm after death and up to pre-natal rebirth there occurs a purposeful reversing of the part played by unconscious organ-building forces during sleep and the destructiveness of the forces of consciousness. 'At birth and death, the 'outer' and the 'inner' are transmuted in a manner controlled by law' (Wachsmuth p. 59). What was previously the outer world becomes the inner world and vice-versa.

'The inner dynamics of the rhythmic mingling and separation of these states are controlled by the law of the balancing of forces. These states effect the states of Consciousness, Life and Form' (Ibid, p. 61).

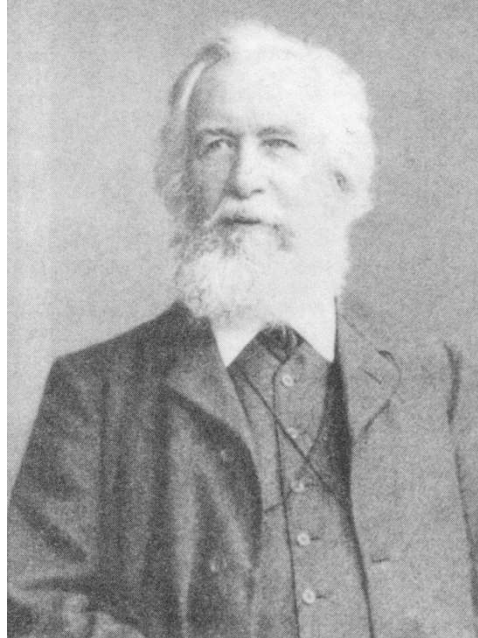
SELECTED REFERENCES

- Steiner, Rudolf; *The Relation of the Diverse Branches of Natural Science to Astronomy* - 18 lectures; Unpublished; delivered 1 January 1921.
- Wachsmuth, Guenther; *Reincarnation*, Philosophic Anthroposophic Press, Dornach; 1937.
- Steiner, Rudolf; *Lectures on Bees*
 Trans. By Marna Pease and Carl Alexander Mier in 1933, Reproduced by
 Free Deed Books and Copyrighted by Rudolf Steiner Publications, Inc. In 1964.
- Locher-Ernst, Louis; *Space and Counterspace*, The association of Waldorf Schools of North America Fair Oaks CA95628; Foreword by Dr Georg Unger.
- Hauschka, Rudolf; *The Nature of Substance*- Vincent Stuart, London; 1966.
- Adams, George; *Physical and Ethereal Spaces*- Rudolf Steiner Press; London;1977.

13. Steiner and Haeckel (1834 – 1919)

Steiner's Acquaintance with Haeckel

Steiner actually met Ernest Haeckel in 1894. This was on the occasion of the biologist's sixtieth birthday. Steiner had written an article defending Haeckel's *The Riddle of the Universe*. This article was probably the reason young Rudolf received his birthday invitation. In point of fact Steiner was not greatly enamoured of Haeckel's simple materialistic approach to evolution nor did he espouse the evolutionary theorising of Darwin or Lamarck.



Ernst Haeckel (1834-1919)

Haeckel and Theosophy (1905)

In 1905 Steiner gave a lecture printed under the title 'Haeckel and Theosophy'. He described Haeckel's biogenetic law, **that ontogeny recapitulates phylogeny**, as one of the most important ideas of the age, but that Haeckel was its worst possible protagonist! Steiner challenged Haeckel's materialistic monism. Martyn Rawson explains:-

*'Steiner's own version of monism sees physical and spiritual as two **confluent streams** rather than two parallel universes with only one-way exchange from above to below as is the case with the most dualistic 'world views'.*

The Spirit in Evolution p.91.

For Steiner Spiritual Science and Natural Science are complementary to each other. Unlike Haeckel, Steiner's monism is spiritual and materialistic at the same time. Again, Steiner's evolutionary approach included a teleological aspect as well as a causal one. He understood physical creation as being imbued with spirit and meaning.

Steiner's Spiritual Intuitive Methodology

Steiner owed much to Darwin, Haeckel, Nietzsche and Hartmann but this was more in a negative sense. In his preface to the 1923 Edition of *The Riddles of Philosophy* Steiner explains:

*'One must be capable of thinking idealistically with the idealist and materialistically with the materialist. For only thus will the faculty of soul be awakened that can become active in **spiritual intuition**. (p. xvi)*

Haeckel's Law' and Baer's Reformulation

Haeckel was the chief proponent in the 19th century of the 'fundamental biogenetic law' that 'Ontogeny recapitulates phylogeny in a shortened form'. Jos Verhulst explains:

'the entire evolutionary series (of adult parental forms) of an animal species is repeated in shortened form in the morphological changes of the developing animal.'

Developmental Dynamics, p. 33

In the 20th century Karl Ernst von Baer (1792 – 1876) challenged 'Haeckel's Law' by being more specific:

'the embryo of a higher animal resembles the embryo rather than the adult form of a lower animal.'

Ibid p. 33

Linear Time and the Double Stream of Time

Rudolf Steiner not only understood the expository power of **spatial polarity** he was equally at home with a two-headed '**arrow of time**'. Modern physics conceives time as linear and flowing in one direction- from the past to the present. Anthroposophical science adds another dimension. It also conceives time as moving from the future to the present. **It adds teleology to causality.**

Steiner's Criticism of Haeckel

Steiner drew attention to Haeckel's sole reliance on causal explanations. Steiner avers that for Haeckel:

*'A given form does not point to a goal toward which it strives, but toward the origin from which it sprang. The method of explanation for the **organic** phenomena has become the same as that for the **inorganic**.'*

Riddles of Philosophy
p. 301

Haeckel boastfully proclaimed his monism with these words:

*'If the physiological functions of inheritance and adaptation have been proven to be the only causes of the process of organic formation, **then every kind of teleology, has thereby been eliminated from the field on biogenesis.***

Ibid p. 302

Thus Steiner not only disagreed with Haeckel's exclusion of every kind of teleology from the field of biogenesis he also posited a form of evolution which had the idea of a double stream of time: the evolutionary past and the beckoning stream from the future.

Regressive and Progressive Evolution

In a letter to Edourd Schure Steiner wrote:

'I understand that there is a regressing evolution, the occult-astral (the spiritual) which interferes with the progressing one!'

Directionality and Flow of Time

Steiner not only challenged the traditional notions concerning the directionality of time (ie It flowed from the past to the future), he also claimed that in its flow it reaches a certain stage and consolidates its elements then proceeds to a higher level of development. Time has a habit of recapitulation! (see also Section 28: 'Sevenfoldness'.

The Inner Nature of Time

Steiner declared in his Whitsunday lecture in Dornach (1924) that

'(Time) in its exact and deep meaning can (on Earth) only be experienced through space. On Earth we do not experience the reality of time at all!

Temporal Integration and The Modalities of Thinking (Schad)

Wolfgang Schad coined the term '**temporal integration**' to explain the double stream of time. His article in the volume of essays *Towards a Phenomenology of the Etheric World* is entitled *Scientific Thinking as an Approach to the Etheric*. In his essay Schad provides an inventory of **three modalities of thinking** which biological scientists have not always differentiated.

'Temporal Integration means integrating the two orders (or streams) of time'. (ie. past to present with future to present).'

Causal, Correlative and Teleological Thinking

Schad's article notes that Neo-Darwinism seeks teleologies and then explains them causally. Neo-Darwinism cannot explain 'life processes'. Between **causality** and **teleology** lies a third modality of thinking. Schad calls it the '**correlative**' mode. Steiner referred to it as a '**relationship of reciprocal causality**' (1922). Steiner also warned of errors that would be committed if the methods of investigating the inanimate world were applied to the life sciences.

Appropriateness of Modalities

Schad provides the following summary to illustrate his conviction (and Steiner's too) that the natural world is not explicable in terms of one way of thinking.

CAUSAL	CORRELATIVE	TELEOLOGICAL
physics	biology	Psychology
lifeless	living	Mental
determined by the past	determined by the present	determined by the future

Microcosmogony and Macrosmogony

Karl Konig, one of Steiner's students, took the biogenetic law a step further than Haeckel and asserted that:

'The development of the human embryonic sheaths and appendages is a reproduction of cosmic events in a material medium' (Man and Animal, Hermann Poppelbaum, p. 70).

Poppelbaum expresses this relationship in these words: "Microsmogony is a reflection of the macrosmogony". This is summarised in the following Table:

	Polarian epoch	Hypoborean epoch	Lemurian epoch
Microcosmic	Undivided morula	Trophoblast + embryoblast	Trophoblast + magma reticulare + embryonic nucleos
Macrocosmic	Undivided primal body	Sun + moon-earth	Sun + moon + earth

SELECTED REFERENCES

Poppelbaum, Herman; *Man and Animal, Their Essential Difference*; Anthroposophical Publishing Co; London; 1960.

Rawson, Martin; *The Spirit in Evolution*; The Association of Waldorf Schools of North America (AWSNA Publications Committee); 2003.

Steiner, Rudolf; *The Riddles of Philosophy*; Reprinted by Steiner Books, 1973.

Suchantke, Andreas; *Metamorphosis – Evolution in Action*; Adonis Press; 2009.

Verhulst, Jos; *Developmental Dynamics – Discovering Evolutionary Principles through Comparative Morphology*; Adonis Press; 1999.

14. Steiner's Evolutionary Insights

Transitioning From the Spiritual Archetype to the Physical World

Evolutionary Insights

Steiner had great respect for Herbert Spencer, Charles Lyell, Charles Darwin and Ernst Haeckel but his adherence to the Goethean methodology gave him insights rather than a simplified theory. Goethe acknowledged **adaptation** but not as a 'blindly working external cause' but a response of 'the spiritual type to the outside conditions'. Likewise **genetic inheritance** could explain the continuance of the species but never explain its initial appearance. Steiner's master scheme of evolutionary development began with the idea that cosmic evolution was reflected in man.

1.

A Priori Assumptions

Anthropology and Cosmology

The foundations of Steiner's Occult Science rest squarely on the Hermetic dictum that the nature of the universe is faithfully imaged in man. To understand man is to understand the universe and vice-versa.

The nature of man (Anthropology) is found in the evolutionary history of the cosmos (Cosmology). Likewise, the evolutionary history of the universe is imaged in man.

Steiner's Deference to the Hierarchies

Steiner also makes an assumption that Gnostic thought must be included in a theory of evolution.

1. **The Spirits of Will**

The Spirits of Will evolved solid matter. They are known as **Thrones, Seraphim** and **Cherubim** in Christian Esotericism. They belong to the first hierarchy.

2. **The Spirits of Wisdom**

The Kyriotes and the Dominions. They belong to the second hierarchy. They had the responsibility for the evolution of the watery element.

3. **The Spirits of Movement**

The Dynamis, they are at work in the airy forms.

4. **The Spirits of Form**

The Exusiai – sometimes referred to as the Elohim brood in the warmth element.

Man is the Oldest of All Creations

'Man is the oldest of all creations of our Earth. The Animal Kingdom was not added until the Sun Period and the Plant Kingdom was added only during the Moon Period. The Mineral Kingdom is really only an Earth product.'

Rudolf Steiner

Emphasis on Discontinuities not Missing Links

Modern evolutionists usually present the Kingdoms of Nature in an ascending series of: Mineral Kingdom → Plant Kingdom → Animal Kingdom → Man. In this scheme each Kingdom is related to the next by a connecting link or transitional type. Unfortunately for Darwinian evolutionists these transitional linkages are 'missing'. Steiner's much more comprehensive theory of evolution is able to make sense of this missing linkage.

Indeed, he enjoins his students:

'We must be on the lookout for points of discontinuity, not for missing links.'

The New Consciousness, Hermann Popplebaum, (p. 146).

The Logos

Steinerian cosmology begins with the **Logos**. The Logos is the union of the Sun, the Moon and the Earth.

'The form and essential being of everything that lives upon our earth is determined by the fact that first the sun and then later the moon separated from the earth. From that time onwards the forces and influences of these two heavenly bodies played down upon the earth from outside'

'The Festivals and their Meaning' (p. 20)

The Original Earth Contained the Whole Solar System

In Steiner's thought the present Earth has evolved through four identifiable phases. It has another three phases yet to evolve.

*'I have indicated how in a certain very early condition of our planet, Sun, Moon, Earth, and the other planets too, were **ONE WHOLE**.*

Man in the Past, Present and Future (p. 65)

Steiner described the first phase of Earth's evolution the '**Old Saturn Phase**'. During this phase the original composite 'Earth' was as large as the Earth is to Saturn. During the '**Sun Phase**' and '**Moon Phase**' the size of the Earth shrank. Each phase had 'beings' of a spiritual nature who once resided on the composite Earth condition and also on the detached, external planet.

2.

Phases of Earth's Development

The Evolution of the Planet

In Steiner's thought, the present earth has evolved through four stages and will continue to evolve through another three stages.

- i). *The 'Old Saturn' phase*
In this earliest phase the earth lacked solidity but the foundations of its physicality were present in a warmth condition;
- ii). *The 'Old Sun' phase*
In this second phase the warmth condition became partially transformed and a slightly more substantial element than warmth was added. This was air, or the aeroform, which brought a light element to the evolving planet;
- iii). *The 'Old Moon' phase*
In its third phase the substantiality of the planet increased with the addition of the fluidic or 'watery' element to the warmth and air elements;
- iv). *The 'Earth' phase*
During this fourth phase of earth's evolution substantiality, in its present sense, emerged on the crust of the earth. It must be understood that all three previous earth conditions are present simultaneously as the earth hardened. Also the three previous conditions were partially transformed in the process and these transformations interpenetrated the new and emerging conditions.
The 'Earth' phase of the Earth's evolution is actually a composite planet which incorporates conditions of warmth air water and solid substance;
- v). *The Future 'Jupiter' phase*
Future conditions of the earth will shape the recognisable forms of the present day;
- vi). *The Future 'Venus' phase*
- vii). *The Future 'Vulcan Stage'*

3. The Descent into Matter

A Spiritual Geology

The foundation of the mineral, the plant, the animal and the human kingdoms were already present in the warmth stage of earth's evolution. As the earth's crust evolved through the Azoic the Palaeozoic, the Mesozoic and the later geological eras there has been increasing densification and differentiation of the kingdoms of nature. The ancestral forms of the present kingdoms of nature sloughed off their non-livingness. With the departure of the moon from the earth the lunar force no longer operated from within the earth but did so as an outside body. The former life of the earth bears no resemblance to that of today. If we catch a glimpse of the mighty **processes** which preceded the **fixed forms** of today we must engage in an imaginative reconstruction of a new **spiritual geology**.

Four Kingdoms and Four 'Bodies'

Anthroposophy recognises four kingdoms of nature: the mineral, the plant, the animal and man. Each of these Kingdoms has a characteristic 'body'.

- **the mineral kingdom** has a physical body
- **the plant kingdom** has a physical body and an etheric body
- **the animal kingdom** has a physical body, an etheric body and an astral body
- **the human kingdom** has a physical body, an etheric body, an astral body and an ego.

Form and Process

Anthroposophy teaches that life is a property of form rather than of matter. Form can be understood as frozen process. Conversely process can be understood as fluidic form. Form and process are polar principles of creation.

Four States of Densification

The earth's geological composition and the four Kingdoms of nature exhibit characteristics of four conditions of densification in various combinations.

- Fire (warmth state)
- Air (gaseous state)
- Water (fluidic state)
- Earth (solid state)

4. Man and His Relationship to the Three Kingdoms of Nature

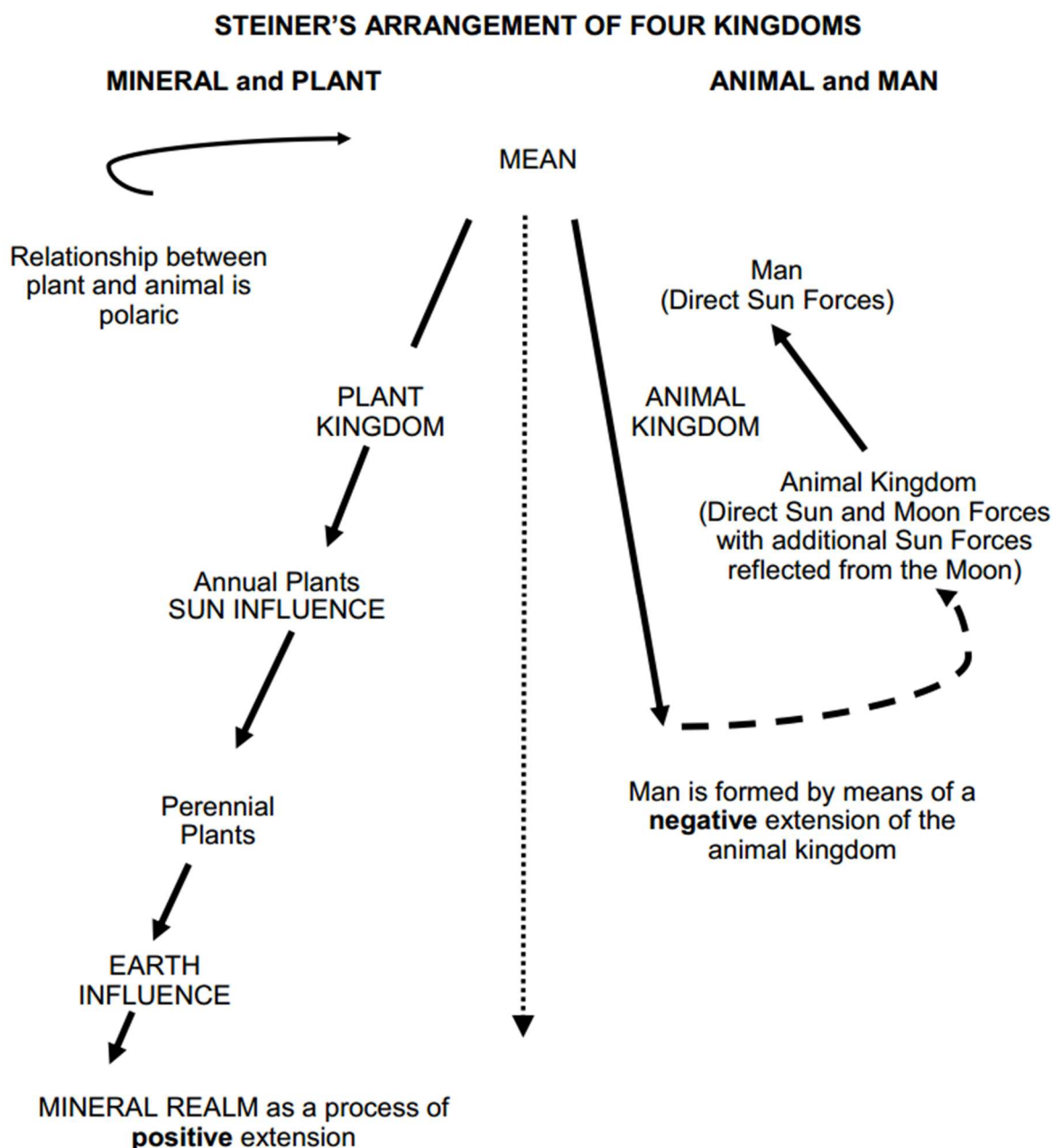
The Conventional View

Again, Steiner does not simply perceive a direct linear progression from mineral Kingdom to man. The conventional view is purely a linear view. It identifies a progressive ascent of man from the mineral kingdom to the plant kingdom to the animal kingdom then finally to human beings. This lineal ascent admits that the ascent has many side branches as it advances to man.

Steiner's Unconventional View

Steiner's view confronts the problem of the 'missing links'. He cannot identify the transitional types from the plant kingdom to the animal kingdom. Indeed, he claims that these two kingdoms are Polaric. This leads him to divide the four kingdoms into two groups:

1. Mineral and plant
2. Animal and human



Steiner's Theory of Evolution highlighted the importance of the direct forces of the Sun on the form of the plant, animal and man. When these form-shaping forces were also reflected by the Moon they gave rise to the ANIMAL gestalt. When the Moon's reflective powers were impeded by the Earth this produced the form of MAN. The human kingdom's physicality is not as advanced as the animal kingdom. However this economy is manifested in the enrichment of his mental life. The ANIMAL is 'negatively' extended in the form of MAN.

The interactive Effects of the Sun, Moon and Telluric Forces

The Mineral/ Plant sub-groupings is Earth -Solar while the Animal / Human is under Earth / Solar \pm Moon.

Gestalt of Man and Animal

The gestalt of man radial-vertical spine is due to direct sun forces. The animal gestalt is shaped by the direct sun forces PLUS the indirect forces of the sun from the moon.

(Note: The forces associated with the Solar forces are not identical as the Sun + Moon forces. The Sun – Sphere includes the Sun forces and the additional Sun forces as they are reflected from the Moon to the Earth. The Sun – Moon forces give rise to the gestalt of the Animal Kingdom. The Human Kingdom is not shaped by the reflected forces of the Sun and the Moon). Refer to ‘Interdisciplinary Astronomy’, Ch. 12, Rudolf Steiner)

(See diagram)

- (i) The Plant Kingdom and the Animal Kingdom are related in a **polaric process**. This is evident in the reciprocal **processes of assimilation**.
- (ii) The Plant Kingdom is related to the Mineral Kingdom by a **process of elimination**.
- (iii) The Animal Kingdom is related to the Human Kingdom by a **process of checking and reversal**. These relationships are not linearly ascending and may be depicted diagrammatically as in the diagram.

5.

The Evolution of Man From the Higher Spiritual World to the Physical World

Relationship of Man’s Four Bodies to the Kingdom’s of Nature

Steiner often referred to the following diagram when explaining the relationship of Man to the Kingdoms of Nature:

	Mineral	Plant	Animal	Man
Higher spiritual world	Ego			
Lower spiritual world	Astral body	Ego		
Astral world	Etheric body	Astral body	Ego	
Physical world	Physical body	Etheric body Physical body	Astral body Etheric body Physical body	Ego Astral body Etheric body Physical body

Thus Man combines within his own nature aspects of all the Kingdoms of Nature without invoking transitional missing links. Man has descended from the spiritual world to the material world more completely than the other Kingdoms. He has done so because of the sacrifice of the other Kingdoms whose essential spiritual natures (their egos) remain in higher spiritual realms.

The Threefold Nature of Man

Steiner’s physiology of man saw man as a threefold organism of head, chest and limb system. This integrated system was also polaric. The cephalic or head system was

polaric to the metabolic – limb system. These two poles were mediated by a pulmonary – circulatory system. In Steiner's holistic approach to medicine the 'thinking –pole' and 'metabolic pole' are mediated by the rhythmic system.

The Head as an Evolved Animal

Rudolf Steiner taught that:-

'With respect to our head we are descended from the animal world. There is no denying it – the head is only a further evolved animal'

Study of Man (p146)

The head (only) is descended from animals whereas the breast organs and the limb organization were only added later. Andreas Suchantke elaborates on this claim by stating:-

'When Steiner said this – at the beginning of the last century – the accepted opinion was that the vertebrate and ancestors of human beings had an endoskeleton right from the beginning. Only in the middle of the last century was it discovered that the ancestors of the vertebrates i.e of fish were actually creatures with an exoskeleton of crude bony armour (placoderms) which had previously thought to be crustaceans, The endoskeleton is indeed a more recent development!'

Metamorphosed Copies of the Skull

Goethe was the first person to observe how all head bones are transformed vertebra. The skull was a more highly developed spinal column. Steiner claimed that the principal formative forces of the head were of cosmic origin. They were developed in the mother's body through a process of crystallization. The human 'limbs are not merely head bones metamorphosed, they are more even more – head bones turned inside out! The centre of the limb system is a sphere, the opposite of a point. The middle or chest system is a semi – enclosed sphere. The nearer the ribs are to the head the more they succeed in making the enclosure. The ribs do not meet because here the force which comes to the limbs from the outside is working against them.' (See Study of Man p. 142 -143).

SELECTED REFERENCES

Steiner, Rudolf; *An Outline of Occult Science*, Translated H. Monges. Anthroposophic Press, Hudson, N.Y. 1972.

Steiner, Rudolf; *The Riddles of Philosophy*; Reprinted by Steiner Books, 1973.

Poppelbaum, Hermann; *A New Zoology*; Philosophic-Anthroposophic Press; Dornach Switzerland; 1961.

Poppelbaum, Hermann; *Man and Animal, Their Essential Difference*; Anthroposophical Publishing Co; London; 1960.

Rawson, Martin; *The Spirit in Evolution*; The Association of Waldorf Schools of North America (AWSNA Publications Committee); 2003.

Suchantke, Andreas; *Metamorphosis – Evolution in Action*; Adonis Press; 2009.

Verhulst, Jos; *Developmental Dynamics – Discovering Evolutionary Principles through Comparative Morphology*; Adonis Press; 1999.

Steiner, Rudolf; *An interdisciplinary Astronomy*, Translated by Frederick Amrine, 2020.

15. Steiner's Theory of the Evolution of Consciousness

History As Symptom

Steiner's lecture series; 'The Evolution of Consciousness' was delivered in 1923. Its broad sweep of 'history' is an imaginative analysis based on Steiner's interpretation of the spiritual processes underlying historical, meteorological and tectonic events. For Steiner, historical events are symptomatic of spiritual forces at work. Steiner's wide reading on historical movements gives him an entitlement to a hearing even though his views are more personal than provable. His spiritual – historical methodology is appealing to some cultural anthropologists but Steiner's interpretations are beyond proof.

Instinctive Clairvoyance to Full, Clear Consciousness

In one of his Christmas lectures, Steiner contrasted the instinctive clairvoyant consciousness of the shepherds with the intellectualised consciousness of the magi. He also observed that 'the modern mind has no understanding that our faculties of apprehension and thinking' are qualitatively different in kind rather than in degree from those of the shepherds and the magi. Notwithstanding the present – day 'scientific' mode of understanding Steiner taught that:

'in the future (there will be a) return to a form of clairvoyant perception of the world, pervaded by full consciousness'.

(see **The Festivals and Their Meanings** p.27)

Steiner produced a framework for understanding the appearance of the phenomena of apparitions, visions and phantasms. He outlines his thoughts in a lecture on the Archangel Michael (see *The Festivals and their Meanings*, translation provided by Matthew Baron, Rudolf Steiner Press, London; 1996 pps 332-347)

- **Instinctual Clairvoyance** belonged to early generations of man but gradually waned / metamorphosed into three other modes of apprehension:-
 - **In imagination** they 'saw' things and 'heard' voices
 - **In inspiration** they perceived things from the spiritual world
 - **In intuition** they 'united' themselves with these other 'beings'.

However since the twelfth and thirteenth centuries (i.e. since the dawning of abstract knowledge and logical sequencing of ideas), the naturally occurring clairvoyance has been replaced by 'reading' the '**astral light**'.

Seven Evolutionary Stages

He delineated seven stages of consciousness through which the human being was destined to evolve. He related these seven stages to the successive stages of earth evolution. A different type of consciousness characterised the development of man as the earth evolved. Steiner labelled the seven stages of earth's evolution: Old Saturn, Old Sun, Old Moon, Earth phase (now), Jupiter, Venus and Vulcan (three future phases).

STAGES	CHARACTERISTIC CONSCIOUSNESS
Old Saturn	Universal Trance Consciousness
Old Sun	Dreamless Sleep
Old Moon	Pictorial Consciousness
Earth	Waking Consciousness of the Present Day
Jupiter	Astral Consciousness Further Extended
Venus	Etheric Consciousness Further Extended
Vulcan	Universal Consciousness

Three Unusual Laggard Types of Consciousness

In his series of lectures *The Evolution of Consciousness* (1923), Steiner described three unusual types of consciousness found in some people while the majority of the population possessed an ordinary waking consciousness.

Somnambulistic Type of Consciousness manifests in certain people who function in the real world in a trance-like fashion. They have little control of their actions. They are people who are zombie-like and obediently follow impulses which emanate from moon forces.

Jacob-Boehme Type of Consciousness manifests in certain people who possess second sight. For such people it is the darkness which rays back the spiritual world. Steiner says that the pictorial content of their visions is due to the subtle influence of the sun forces. Paracelus also had a Jacob-Boehme type consciousness.

Swedenborg Type of Consciousness occurs in persons whose form of clairvoyance enables them to converse with spiritual beings and past historical personages. Steiner claimed that such a form of consciousness was due to the hidden effects of warmth and cold. These emanated from the subtle influence of the Saturn forces.

Eduard von Hartmann and Rudolf Steiner

The publication of Eduard von Hartmann's *Philosophy of the Unconscious* in 1869 provoked responses from later scholars such as Fechner, Wundt, Titchner, Freud and Jung. Steiner, too, was thoroughly familiar with von Hartmann's seminal work. Steiner's *Philosophy of Freedom* is, indeed, a reply to the pessimism implicit in Hartmann's philosophy.

Eduard von Hartmann believed that man was motivated by an unconscious will to live. For Hartmann there was no purpose to life even though there was an impulse to live. Steiner railed against Hartmann's denial of free will and his materialism.

Steiner and Paranormal Phenomena

Rudolf Steiner knew a great deal about dreams, trance states, visions, reverie, second sight and other paranormal phenomena. Indeed, Steiner's *Anthroposophy* is an attempt to understand the invisible and to reveal the hidden laws of the occult. It is in this sense that Steiner's efforts were directed to make the unconscious conscious!

The Astral Light and mediums of Resistance

Steiner described the Astral Light as 'a fine substantiality of the Akasha. The Astral light could only be 'read' against a 'medium of resistance,'

Mediums	Characteristic Epoch	Comments
Earth	Persian	Raying only as far as 'Moon Sphere'
Water	Chaldean	Raying in mist, rain, rivers to Saturn sphere
Air	Greco-Roman	In the 'Fata Morgana'

Warmth Ether as a Medium of Resistance

Modern man has to utilise the 'warmth-ether in order to experience paranormal phenomena.

The Role of Scientific Materialism

Strangely, Steiner believed that modern scientific materialism had a positive contribution to make to achieve a renewal of clairvoyance. It cultivated objectivity into the consciousness of man. Steiner predicted that this would lead mankind to Michael. Once this new consciousness was achieved Michael would provide the guidance from materialism to a true understanding of the spiritual world.

The Interplay of the Unconscious and the Conscious

Steiner often referred to the two Guardian beings that the initiate encounters at the Threshold between Wakefulness and Sleep, between Consciousness and Unconsciousness. If we distinguish 3 levels of wakefulness and 3 levels of sleep we can imagine that it is possible to cross the threshold with one level of un/consciousness into another level of un/consciousness.

CONSCIOUSNESS UNCONSCIOUSNESS	FULLY AWAKE
	WIDE AWAKE
	JUST AWAKE
	THRESHOLD ZONE
	LIGHTLY ASLEEP
	RESTFUL SLEEP
	COMA

- (i) Premonitions occur when a person brings a 'lightly asleep' consciousness over the 'threshold' into the 'just awake' zone.
- (ii) Visions occur when a person takes a 'just awake' consciousness over the threshold into the 'lightly asleep' zone.

Consciousness and Spiritual Astronomy

Steiner taught that both man and the planets (including the moon, sun and the stars) had a physical and a spiritual life. Man has a physical and a spiritual evolution and so did the cosmos. Man's destiny in this life and the after-life (before re-birth) were intimately related. The heavenly bodies are, in reality, manifestations of spiritual beings who radiate spiritual and moral qualities/forces within their 'spheres'. These spheres are graduated by their degrees of consciousness. As man passes through these 'spheres' he has the opportunity to improve his spiritual nature. Steiner stated:

'The life between death and a new birth is really living through the world of stars; but this means through the spirit of the world of stars, through living together with the divine spiritual beings of the star-world'

Quoted by A.P. Shepherd in 'A Scientist of the Invisible' p.120

SELECTED REFERENCES

Steiner, Rudolf; *The Evolution of Consciousness as Revealed Through Initiation Knowledge*; 3rd Ed., Rudolf Steiner Press; 1966.

Steiner, Rudolf; *Man in the Past, the Present and the Future*; Trans. E. Goddard, London, 1982.

Steiner, Rudolf; *Macrocosm and Microcosm*, Rudolf Steiner Press; London; 1968.

Steiner, Rudolf; *The Festivals and their Meanings*; Translated by Matthew Baron;
Rudolf Steiner Press; London; 1996.

Shepherd, A. P.; *A Scientist of the Invisible*; Hodder and Stoughton; 1975 Ed.

16. Steiner's Views on the Nature of Man

Steiner's views on the nature of Man are not only central to his educational thought, they also form the foundations of his social policy.

Man as a Being of Body, Soul and Spirit

Steiner regarded Man as tri-partite, i.e. a being of body, soul and spirit. These three elements, although present in the newborn child, progressively unfold in the course of a person's first 21 years. In a sense, a human being is born not once but four times! At about 21 years of age the fourth 'birth' occurs!

Body Development

Phase 1		Body development
Birth	Age	Task
1 Physical body	0-7 years (cutting of second teeth)	To lay the foundations of the physical body through the sculpturing of the formative etheric forces
2 Etheric body	7-14 years (to puberty)	The metamorphosis of the formative etheric forces into the inner soul activity of the astral body
3 Astral body	14-21 years (to adulthood)	The birth of the I or Ego. The emergence of the individuality and self-direction of the person
↓ Controlling ego		

Ego

Once the ego has emerged phase 2 of the overall developmental cycle can take place. As the ego develops the individual shapes his own biography.

Soul Emergence

Phase 2	Soul Processes	
The sentient soul	(21-28 years)	The astral body is now worked on by the ego from within
The intellectual soul (or mind soul)	(28-35 years)	The outer sheath of the etheric body is now worked on from within by the ego
The consciousness soul (or spiritual soul)	(35-42 years)	The outer sheath of the physical body is now worked on from within by the ego

The emergence of the three souls corresponds to the three bodies of the first 21 years. Note that the process is in reverse order. Rather than transforming the physical, the etheric and astral the process of soul emergence begins with the transformation of the forces of the astral body, then the etheric body and lastly the physical body.

The Appearance of the Three Souls in Cultural Evolution

Soul Type	Cultural Characteristics
The Sentient Soul	This soul emerged culturally during Ancient Egypt and Chaldea. Man's actions were primarily motivated from the life of feelings . This characteristic appeared in medieval Christianity in such persons as Saint Frances of Assisi and also in the veneration of the Sacred Heart of Jesus .
The Intellectual Soul	This soul is evident in the middle ages of Europe with the emergence of rationality and thinking as a guide to motivation. It can be characterised in the geometry of gothic cathedrals and the work of masons . It is evident in the emergence of scholasticism and universities .
The Consciousness Soul	This soul emerges when mankind can reflect objectively about his feelings and about his thinking. Man becomes conscious of his self or has an ego consciousness . Man no longer organises his life from an outside revelation or an external authority. The consciousness soul allows a person to stand alone and in freedom . Once this development has been reached the stages of spiritual development can take place.

Spirit Emergence

Phase 3	Spirit Processes
Spirit self (42-49 years)	Transmuted Astral Body or Manas
Life spirit (49-56 years)	Transmuted Etheric Body or Buddhi
Spirit body (56-63 years)	Transmuted Physical Body or Atma

Spirit Development Through Transformation

The spiritual part of man is, today, only present in embryo. Its parts will develop further after death and before birth. The spirit part of man emerges from the transformations of the astral, etheric and physical bodies in some people. It may take place naturally through the trials and tribulations of life or it may be cultivated by inner discipline and guidance offered in mystery schools, through the processes of initiation.

The **Astral Body** is one of passions and desires. The student (or **Chela**) is assisted in the process of gaining mastery of the astral body by the **Hierophant**. The transformed astral body is known as **Manas** or **Spirit Self**. The new astral body (or manas) now works on the **Etheric Body** and when this is accomplished the etheric body becomes **Buddhi** or **Life Spirit**. The transformation of the **Physical Body** by the Buddhi produces the **Atma** or **Spirit Body**.

SELECTED REFERENCES

Steiner, Rudolf; *Study of Man, General Education Course*; Rudolf Steiner Press, London, 1960.

Steiner, Rudolf; *Man Hieroglyph of the Universe*; Trans. George and Mary Adams; London; 1972.

Steiner, Rudolf; *An Occult Physiology*; Rev. ed., London; 1951.

Steiner, Rudolf; *Earthly and Cosmic Man*; Trans. D.S. Osmond; London; 1948.

17. Steiner's Views on Education

Declaration to Teachers

In an address to teachers who were intent on opening a Waldorf School in England Steiner made this declaration:

'The world must notice that this matter is neither something which is steeped in abstract, dilettante plans of school reform nor anything amateur but something which arises out of a conception of the real being of man and which is now to be brought to bear on the art of education

(The Kingdom of Childhood p.159)



Berta and Emil Molt, who sponsored the first Waldorf School in Stuttgart

The Waldorf Schools

The Waldorf schools probably represent Steiner's most visible legacy. These schools are independent, co-educational, comprehensive and follow a unified 12-year curriculum. The schools are not examination-bound but provision is made to meet state matriculation requirements where necessary.

Education as Part of a Spiritual Journey

There are over 25 volumes of Steiner's lectures on education so it is only possible to highlight a few of the salient principles. The references listed at the end of this section confirm the principle that schooling is only part of life-long education and only part of a much larger spiritual journey. Children are educated to shape and fulfil their destiny.

The Real Nature of Man

Teaching must take, as its first concern, the real nature of man. This has been outlined in Section 16 and Section 18 adds to it. Steiner defined a man as a composite being of body, soul and spirit. The teaching process must be in accordance with the principles and laws of child growth and development. According to Steiner these laws follow a seven-year rhythm. Education is for development of the body, the soul and the spirit.

The Four Temperaments

Children are, in the main, graded by age rather than ability. The four temperaments are discussed in Section 18 of this book. They are the choleric, the sanguine, the melancholic and the phlegmatic.

Steiner encouraged teachers to adjust their teaching styles to suit the individual temperament of the child.

Thinking, Feeling and Willing (or Head, Heart and Hand)

The very young child is predominantly 'will' forces. As the child develops he lives more in his 'feelings' until his ego emerges and his 'thinking' abilities emerge. In the elementary school the teacher takes great advantage of the child's rhythmic system and an emphasis is given to eurhythm, dance and music. In the primary years the teacher plays a more authoritative role in the child's life. At the secondary level the curriculum is more intellectualised and more hard-edged. During this phase the teacher is more a guide than an authority figure.

Make Believe (Fantasy) to Reality

Up until the cutting of the second teeth, the child's inner life is characterised by make-believe and is richly imaginative. The Waldorf curriculum is designed to capitalise on this fact. Steiner saw great value in cultivating the fantasy element in very young children and warned of the positive dangers in later life of an over-intellectualised curriculum at too early a stage. The curriculum had to follow an orderly progression from make-believe through fairy tales and nursery rhymes, fables, to folk tales of legendary heroes. The child is gradually led from fantasy through mythology to history. This progressive development into historical consciousness was not to be rushed or achieved before puberty. Once these foundations are established the child can be introduced into the domain of investigation of the real world. In the adolescent phase the curriculum is increasingly intellectualised through an examination of the history of discovery and invention. The growing child is encouraged to investigate, measure and conduct experiments in the realms of nature

Pedagogical Considerations

Ideally, teachers follow a class of children from Kindergarten through to 6th Grade (at least for the main lesson). This arrangement provides a sense of security to the child and incorporates the principle that the teacher also has the opportunity to develop at the same time as the child.

The organisation of the school is run by a college of teachers in collaboration with a separate, but supportive parent organisation. Ideally, the college of teachers is chaired on a rotational basis.

Education as an Art Form

Steiner was both a scientist and an artist. He welcomed the insights that both domains provided. He saw education as an artistic process that cultivated imagination, self-expression and creativity. These qualities could be applied to the investigation of the real world and they lead to discovery and invention. Teaching skills had to be tailored to the individuality of the child and lead to the self-direction of the child. Schooling was only a part of life-long education.

Curative Education

Steiner also provided guidelines for a separate approach to the education of children with special needs. This system is known as Curative Education and is now an established alternative to state-run special schools for handicapped children.

Camphill Villages and Schools

The Camphill Village life offers a total life style for individuals in need of special care. Its community living is a specialised aspect of Waldorf Education. (See Carlo Pietzner's book in the selected references list).

SELECTED REFERENCES**Steiner, Rudolf**

- *The Education of the Child in the light of Anthroposophy*
- *The Roots of Education*
- *The Kingdom of Childhood*
- *Discussions with Teachers*
- *A Modern Art of Education*
- *Practical Advice to Teachers*
- *The Study of man*

Other Authors

Barnes, Henry; '*An Introduction to Waldorf Education*' Teachers Collage Record (Spring 1980)

Easton, Stewart; '*Man and World*' has two chapters on Education:

The New Art Education (pp. 382-411); and

Anthroposophy and Curative Education. (pp. 412-435)

Edmunds, Francis; '*Rudolf Steiner Education*'. The Waldorf Schools.

Fisher, Bernhard; *Healing Education Based on Anthroposophy's Image of Man: Living, Learning, Working with Children and Adults in Need of Special Care*; Trans. C.A. and G. F. Meir; Steiner Book Center, British Columbia; 1974.

Ogletree, Earl J.; *Introduction to Waldorf Education. Curriculum and Methods*; Washington, D.C., University Press of America, 1979.

Piening, Ekkehard and Nick Lyons, Eds; *Education as an Art: Essays on the Rudolf Steiner Method – Waldorf Education*; Introd. Henry Barnes, N.Y. The Rudolf Steiner School Press; 1979.

Pietzner, Carlo; Ed, *Aspects of Curative Education*; Kimberton Hills, PA: The Camphill Movement, 1966.

18. The Four Temperaments

The Neglect of Temperament in Psychological Theory

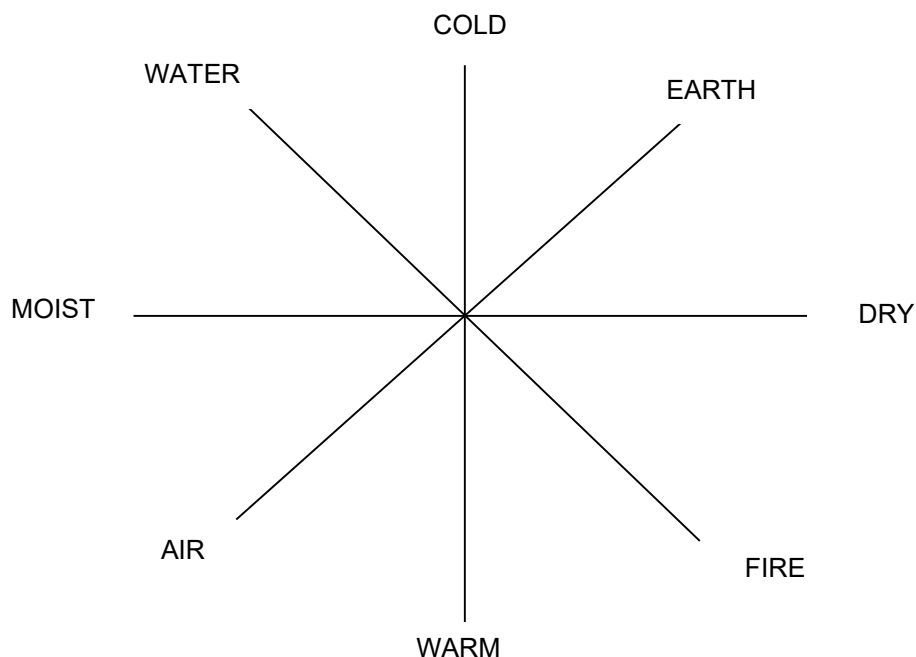
In modern psychological theory the concept of temperament is hardly given any credence. J.B. Cattell's account of personality is one of the few theories to accept that the concept of temperament has a place. Like the typological theorist, Sheldon, Cattell accepted the principle that temperament traits were related to constitutional/bodily characteristics. If modern psychologists were to evaluate Steiner's theory of the temperaments they would most likely conclude that his approach was antiquated.

Hippocrates (460-377 BC)

Steiner's elaboration of the nature of the four temperaments was a harking back to the ancient Greeks. In the ancient Greek world there was a belief that religion and healing were related. The physician was a priest who understood the hidden mysteries. With the appearance of Hippocrates of Kos (460-377 BC) medicine moved apart from religion.

Empedocles (490-430 BC) and the Four Elements

Empedocles is credited with formulating the first periodic table! He differentiated four elements: fire, earth, water and air. The complete picture adds four elementary qualities to describe the four elements. This may be depicted in the following diagram:



Notes:

1. The elements of Water and Fire are polaric. The elements of Earth and Air are also polaric.
2. Each of the elements is a combination of two qualities e.g. Earth appears as a combination of the qualities Dry and Cold.

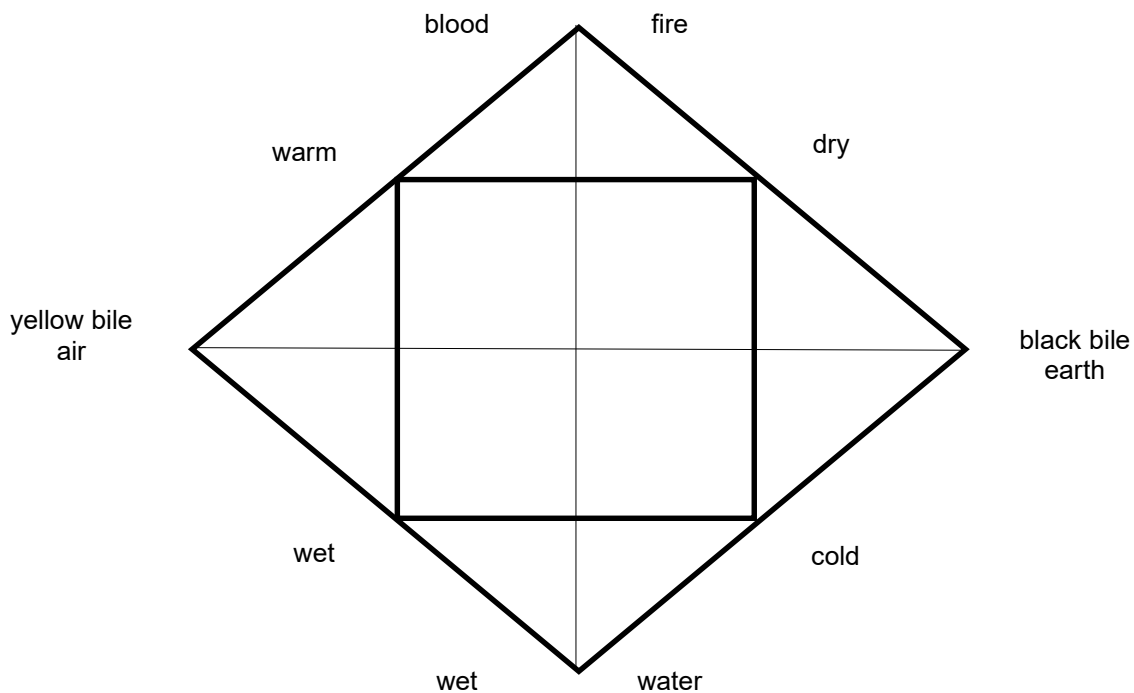
(see P. 181, *Man or Matter* by Ernst Lehrs).

Galen and the Four Humours

In the second century AD the Greek physician Galen drew up a table of bodily fluids (humours) and related these to temperaments.

TEMPERAMENT	(Latin/Greek)	BODY FLUID
sanguine	sanguine	blood
phlegmatic	phlegma	mucus
choleric	chole	gall
melancholic	melanchole	black bile

The table drawn up by Galen was combined with the table of elements and the qualities were modified by Aristotle (384-322 BC) and combined in the following schemata:



The 'quinta essentia' of Paracelsus (1495-1541)

Paracelsus added a new principle to the four elements, the so-called 'quinta essentia'. The mysterious fifth element connected the other four and maintained their equilibrium. Healing became the process of finding an illness' own **quintessence** and treating it with its matching herbal remedy.

Steiner's Use of the Ancient Nomenclature

Steiner utilised the ancient nomenclature but gave the terms a new content. While he adopted the temperament trait names of choleric, sanguine, phlegmatic and melancholic he RELATED THEM TO THE FOUR BODIES: EGO, ASTRAL BODY, ETHERIC BODY and the PHYSICAL BODY and **NOT to the BODY FLUIDS**.

Maricke Anschütz in *Children and their Temperament* summarises Steiner's usage:

- if **Self-consciousness** dominates in a person, this results in a **choleric temperament**;
- if the influence of the **astral body** is strongest this means that the person will have a **sanguine temperament**;
- if the **life-force body** predominates in a person, this results in a **phlegmatic type**;
- the **melancholic temperament** is determined by the predominating influence of the **physical body**.

The Analogies of Ann Druitt

Classical Symbol	Temperamental Characteristics
EARTH (like a rock, shut in on itself, immobile, encased, pressed down by its own weight, hard, cold).	The MELANCHOLIC CHILD, anxious like a little old-man, pale-faced, gazing inwards, finds difficulty in interacting, the victim of practical jokes and jibes, needs warmth.
WATER (like a drop of water; smooth, round, perfectly enclosed).	The PHLEGMATIC CHILD feels comfortable in his isolation, but can give comfort and refreshment to others, will eat anything, placid.
AIR (like air, does not belong to anyone but is shared and constantly in motion, causing movement, under pressure can explode).	The SANGUINE CHILD is active, constantly on the move, breezy, an artist in flexibility, constantly changing form, indecisive, untidy, jokey, artist in the making, nervous.
FIRE (gives off heat and light, assumes evanescent forms).	The CHOLERIC CHILD is passionate, easily inflamed, enthusiastic, cannot remain fixed for long, psychologically strong, generous like Napoleon!

(See pg. 46, *Children and their Temperaments* by Maricke Anschütz).

SELECTED REFERENCES

- Anschütz, Marieke; *Children and Their Temperaments*; Floris Books, 1995.
 Steiner, Rudolf; *Discussion with Teachers*; Steiner Press; Bristol; 1992.
 Steiner, Rudolf; *The Four Temperaments*; Anthroposophic Press; 1971.

19. The Three-Fold Social Order

Primacy of Social Reformation

Rudolf Steiner is more popularly known for his teachings concerning 'An Occult Science'. It may surprise many to learn that up to the age of 44 years he probably saw himself as a social theorist! In 1904 he delivered 90 lectures in the Berlin Workers School.

'His lecture courses were soon extraordinarily well-attended, ultimately drawing more than two hundred listeners'

(*'The Fundamental Social Law'*, Peter Selg, p. 16)

After his de facto exclusion from the school he wrote to Marie von Sievers:

'You know that I saw a mission in my activity in these circles. Here something has really been destroyed that I did not want to see destroyed'.

(Ibid, p. 24)

Steiner's views on society were not about sanctimonious theosophical utopias in the after-life. His ideas were meant for the here-and-now. Indeed he saw the reformation of the social-economic system as a pre-requisite to entering higher spiritual worlds. The financial collapse of Germany after World War I gave an unexpected opportunity for a reconsideration of Steiner's ideas. However, Steiner's thought fell on unreceptive ears and still awaits academic advocacy.

The Ideal Social Order

In a certain sense, Steiner proposed that the ideal social order ought to be a three-fold organism in a manner similar to the structure of the human organism. The human organism, according to Steiner, consists of three systems working side-by-side:

- nerves-senses system
- the rhythmic system
- the metabolic process.

The Synarchy of Saint-Yves d'Alveydre

This proposal seems to be a modified version of 'Synarchy' which was a system of social organisation advocated by the French occultist Saint-Yves d'Alveydre (1842-1909). 'Synarchy' was popularised by 'Papus' (Dr Gerard Encausse) in such books as '*What is Occultism*' (Rider, 1913).

'The basis of synarchy, which Saint-Yves said meant 'totalism', was the application of a triune concept of the human organism to human society. The cephalic, rhythmic and metabolic-limb systems of the human body were to have their sociological counterparts in the spiritual, legislative and economic life of each nation.'

p. 29 *Rudolf Steiner and Holistic Medicine* by Francis X. King.

Steiner used the same classification as Saint-Yves and promulgated the same correspondences.

Nerves-senses – the Spiritual System

Rhythmic – the Political/Legislative System

Metabolic – the Economic System.

The Social Body As Three Interlocking Spheres

The social order, like the human body, was in sound health when the three interlocking systems were well co-ordinated.

In proposing the differentiation of the unitary state, Steiner sought to imbue new life into the three great ideals of the French Revolution viz. liberty, equality and fraternity:

The Spiritual Sphere

The spiritual sphere is a domain concerned with human **liberty** or human freedom. Spiritual affairs such as education, the arts, the sciences, the religious pursuits and other cultural concerns should not be subservient to either political or economic domination;

The Political Sphere

The political sphere is a domain concerned with the life of public rights and that aspect in which all people ought to have **equality** before the law;

The Economic Sphere

The economic sphere is a domain concerned with the production, distribution and consumption of goods and services necessary to daily life. The principle upon which this sphere ought to be based is that of **fraternity**. Steiner envisaged the formation of co-operative working associations united in a spirit of brotherhood rather than competition. The threads from the individual associations were to be gathered up by a **Central Economic Council**. "*The main task of the Central Economic Council was to produce the needs of consumption and to distribute them at their "TRUE PRICES"* (*Threefold Government for Social Peace*, T. Gordon Jones, p. 12).

Steiner's social theory was outlined in *The Threefold Commonwealth* which was published in 1919 immediately after the First World War. This work now appears in English as *Towards Social Renewal* or *The Three-fold Social Order*.

The Dethronement of Egotism

Steiner was intent on shaping a society in which economics was the servant of the society and not its master. This meant that mere economic theorising was not going to affect changes in society. It had to begin with the dethronement of egotism and self-interest. This was a spiritual task not an economic one.

SELECTED REFERENCES

King, Francis X; *Rudolf Steiner and Holistic Medicine*; Nicholas-Hays Incl; York Beach; Maine, 1991.

Steiner, Rudolf; *Towards Social Renewal, Basic Issues of the Social Question*; Trans. by Frank Thomas Smith; Rudolf Steiner Press; London, 3rd Edit; 1927.

Steiner, Rudolf; *The Social Future*; Anthroposophic Press Inc; N.Y., 1972.

20. Steiner and Economics

Competition and the Cultural/Spiritual Sphere

Steiner's views on economic matters assume an understanding of his thoughts on the Three-fold Social Order (see Section 19 above). In June (1-12) 1922 Steiner gave a series of lectures entitled *World Economy, The Formation of a Science of World Economics*. Steiner's economic thinking places competition in the cultural sphere and not in the economic sphere. The economic sphere is, ideally, to be characterised by a fraternity of brotherly Associations where the relationship between producers, distributors, and consumers is a spirit of co-operation, not competition. The entire human community should share in the wealth created.

Breaking the Nexus between Money and Human Labour

The fundamental social law emphasises the centrality of working for others. Work must arise out of a view of the totality – the gestalt. The impulse to work must be divorced from egotism. Individuals ought NOT be paid for work:

'We must aim to divorce an individuals' work from their means of subsistence. When people are not paid for their labour money loses its power over work .. In future we will not be allowed to equate money with human labour but only with lifeless goods.'

(See Ch. 3 page 55, *The Fundamental Social Law* by Peter Selg)

Avoiding Commodification of Labour, Land and Capital

Steiner thought that labour should not be recompensed as if it were a commodity. Indeed, the three factors of production – land, labour and capital should not be treated as commodities. Land should not be treated as a commodity to be bought and sold for personal use. The essential nature of the means of production lies in their circulation, NOT in their ownership.

Characteristics of Money

In Steiner's thinking money should not be regarded as a 'thing in itself'. Money must never be an unfair competitor and its lifetime must correspond to the lifetime of the goods and services it helps to create. It should be made to die! On issue, it should be dated and diminish in value and go out of existence at the same rate as economic values are consumed!

Money should flow in one direction through the three domains of goods, productive enterprise and culture. As money flows through these domains it is valued differently.

- It receives value with the production of commodities (purchase money).
- It loses value when invested (loan money).
- It has negative value in the cultural domain (gift money).

It is then renewed by reissue as purchase money again.

Money, Savings and Investment

Money should keep pace with the real economy and the concept of 'savings' be recognised as a false abstraction. For Steiner the very idea that money can be 'saved' is a falsehood. 'Savings are in fact an interloper between 'giving' and 'investment', the true forms of financing the economy – the one cultural and the other commercial.' (see Chris Budd's Essay, p. 109). For Steiner the economic counterpart of an active, initiatory cultural life is risk taking not risk avoidance (as in modern financing). Savings is not, therefore, an example of loan money at work.

'Loan money describes a movement in the overall economic process between the making of an investment and the generation of a surplus. The concept refers to the economic role of money in the economic process and NOT to the legal form'.

(See Chris Budd's Essay, p. 110)

Der Kommende Tag

In 1919 Steiner's followers agreed to form an association of economic enterprises. This association required that participants surrender private ownership and agree to receive equity in the general holding. The profits of the association were to flow into the spiritual-cultural domain, especially the newly established Waldorf school. Steiner named the association 'The Coming Day: Shareholder Corporation for the Furthering of Economic and Spiritual Values' (known as '*Der Kommende Tag*') (see p. 139 *A Life For The Spirit* by Henry Barnes).

The Association struggled for a year or so, under great difficulties, which included banking inertia, and had to be liquidated.

SELECTED REFERENCES

- Harding, Stephan (ed.); *Grow Small, Think Beautiful – Ideas from a Sustainable World from Schumacher College*; Floris Books; 2011.
- Selg, Peter; *The Fundamental Social Law Rudolf Steiner on the Work of the Individual and the Spirit of Community*, Steiner Books; 2011.
- Steiner Rudolf; *World Economy, The Formation of a Science of World Economics*; Trans. Owen Barfield and T. Gordon-Jones. London, 1972.
- Steiner, Rudolf and Christopher Houghton Budd; *Rudolf Steiner Economist – Articles and Essays*; New Economy Publications; 1996.

21. Christianity as Mystical Fact

Christianity A New Jewish Mystery School

Steiner's investigation of Christianity began with the assumption that Christianity was a reformed Jewish Mystery School. This new sect took Jewish thought beyond nationalism. Its message of salvation was for the whole world. It was not only a teaching for the despised Samaritans, it was a message for the whole gentile world! Steiner perceived that for the spiritual leaders of this new movement there was an even higher dimension to the new 'Word'. This esoteric teaching was that **'the Christ within man'** marked a turning point in Cosmic evolution. Later, when the gospels were being consolidated the earlier gnostic teachings about the Cosmic Christ were omitted or considerably modified.

Cosmic Christianity

Rudolf Steiner understood that the birth of the new teaching occurred at the baptism of Jesus by John. At this time the Christ being entered into the life of Jesus of Nazareth. This event was initially celebrated on the 6th January. In 353 A.D. the remembrance of this event was assigned to the mid-winter solstice. In due course, the original celebration suffered the process of conflation. The significance of the baptism was assigned to the birth celebration. Steiner claims that the historical proofs for the claim that Jesus was the Christ incarnate cannot be found in the N.T. records.

'Christ was not known as a high Initiate to the writers of those days.'

(At the Gates of Spiritual Science p.148)

Christianity as Mystical Fact

Steiner regarded initiatory Knowledge as a cosmic process which was manifest and imaged in nature and in mankind.

'The great secret of the mystai was precisely that they creatively release the divine child in themselves' (See 'Christianity As Mystical Fact' p.20 - 21.)

This new spiritual child in man had a miraculous birth because it came from the creative process (the Father) and by the process of the spirit in natural processes (the Holy Spirit).

The Mystery Schools as Forerunners to Esoteric Christianity

Rudolf Steiner's interpretation and exposition of Christianity and the centrality he ascribes to it in cosmic terms is, in my view, among his least satisfactory contributions to human knowledge. Its exposition is a highly creative and imaginative construction but, in the final analysis, it is nonetheless, a magnificent failure.

The life of Jesus is, for Steiner, both a fact and a symbol. However, Steiner admits that the historical proofs for the claim that Jesus was the Christ incarnate cannot be found in the N.T. records:

'Christ was not known as a high initiate to the writers of those days'

(At the Gates of Spiritual Science, Steiner, p.148)

The Mystery of Golgotha and the Akaskic Chronicle

Unlike Form and Source critics of gospel history Steiner readily conceded:

'That the Mystery of Golgotha took place cannot be authenticated in the same way as other historical events. There is no authentic documentary evidence even of the crucifixion. The Mystery of Golgotha – and this is the very essence – is an event transcending the evolution of humanity.'

The Festivals and their Meaning. See p.160

In order to compensate for the unreliability of the four gospels Steiner resorted to a fifth gospel. This gospel was derived from the Akaskic Record. Steiner claimed that this

record was available to seers who had developed skills beyond the ordinary consciousness.

The Two Jesus Children

Steiner distinguishes between the existence of two historical Jesus children which he referred to as the 'Solomon Jesus' of Matthew's genealogical table and the 'Nathan Jesus' of Luke's table. In these two children Steiner sought to link Zoroastrianism with Buddhism. Steiner claimed that Zarathustra had sacrificed his etheric body to Moses and his astral body to Hermes. Through the Nathan Jesus, Zarathustra sacrificed his ego to the Solomon Jesus so that the radiant spirit of the Nirmanakaya Buddha could evolve as the Christ being. With the convergence of these two streams in the 12-year-old Solomon Jesus the way was prepared for the eventual redemption of mankind.

The above scenario is as fantastic as it is complicated. It strikes the average Christian as far-fetched and the product of a fevered imagination. One suspects that part of Steiner's hidden agenda was to provide an all-inclusive framework for the uniting of Egyptian, Persian, Judaic and Indian thought in Christianity. While his motivation might have had lofty intentions, his claim, that this outline conformed to mystical fact, is as convincing as Leadbeater's misguided claims about Krishnamurti.

Steiner's Opposition to the Greek View of the Role of the Gods

The Greeks did not believe the gods created the universe. Rather, they believed the universe created the gods. Steiner's view was different to the Greeks. Steiner believed that the creative powers of the universe emanated from four sets of spiritual beings known as Hierarches. They belong to the World of Archetypal Images or World of Providence. They were:-

Steiner's Adoption of the Hierarchies

1. The Spirits of Will

The Spirits of Will evolved solid matter. They are known as **Thrones, Seraphim** and **Cherubim** in Christian Esotericism. They belong to the first hierarchy.

2. The Spirits of Wisdom

These are the Kyriotes and the Dominions. They belong to the second hierarchy. They had the responsibility for the evolution of the watery element.

3. The Spirits of Movement

These are the Dynamis, they are at work in the airy forms.

4. The Spirits of Form

These are the Exusiai – sometimes referred to as the Elohim. They brood in the warmth element.

Angelology

Steiner drew on many ancient and medieval sources and sought to effect a synthesis with the more mystical traditions of Christianity. He laid particular stress on the influence of the Archangels:

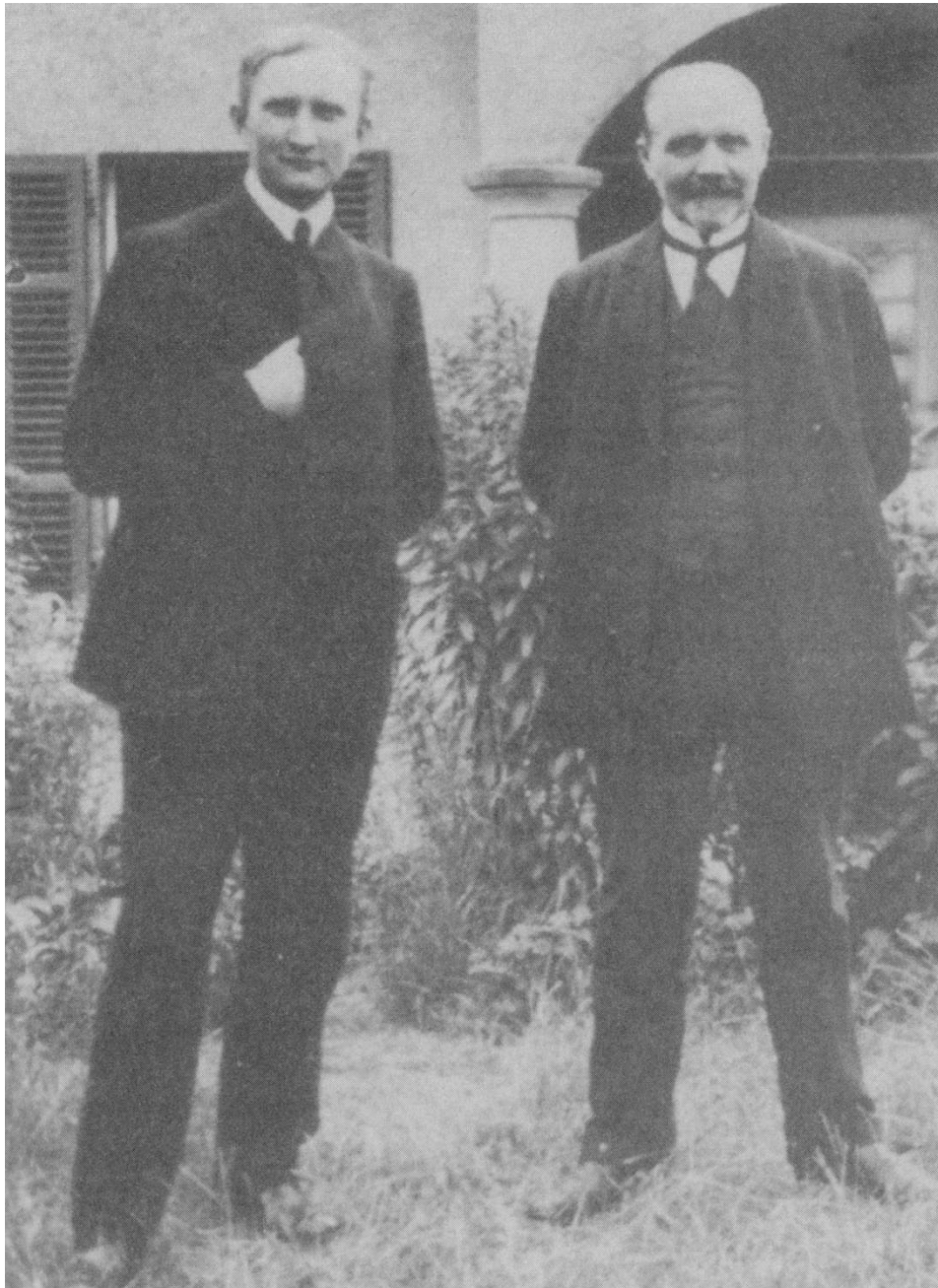
- (i) *Michael* who works from the Sun as a servant of Christ and ruled during the time of Alexander the Great;
- (ii) *Oriphiel* who works from the Saturn sphere;
- (iii) *Anael* who belongs to the Venus sphere;
- (iv) *Zachariel* who belongs to Jupiter and ruled during the 4th-5th centuries;
- (v) *Raphael* who belongs to the Mercury sphere;
- (vi) *Samael* who belongs to the Mars sphere and influenced events up to the 12th century;
- (vii) *Gabriel* who belonged to the Moon sphere and ruled until 1879.

The Appearance of the Etheric Christ

Steiner was quite specific in designating 1879 as the year in which the spiritual rulership of earthly affairs passed from Gabriel to Michael to commence a new cycle. The Second Coming of Christ, according to Steiner, was to take place during the 20th century to certain individuals whose destiny had prepared them to meet the cosmic being in an etheric form.

Christ as the Lord of Karma

The form of esoteric Christianity taught by Steiner incorporated a great deal of Indian thought as it was filtered by Theosophy and European mysticism. He accepted the doctrine of re-incarnation and regarded the Christ as the Lord of Karma. He also used the term 'Representative of Humanity' as a synonym for The Christ.



*Emil Bock (1895-1959) (Left) and Friedrich Rittelmeyer (1872-1938)
Cofounders of The Christian Community*

The Emergence of the Christian Community

One important offshoot of Steiner's numerous lectures on the gospels and esoteric Christianity was the formation of The Christian Community under the leadership of Dr Friedrich Rittelmeyer. It now has more than 300 congregations in 25 countries.

SELECTED REFERENCES

Bock, Emil; *The Apocalypse of St. John*; Trans. Alfred Heidenrich. Edinburgh, Scotland; Floris Books, 1980.

Steiner, Rudolf; *The Reappearance of Christ in the Etheric*; Introd. Reno Querido; N.Y., 1983.

Steiner, Rudolf; *The Mission of the Archangel Michael*; Trans. Lisa D. Monges; N.Y., 1961.

Steiner, Rudolf; *The Gospel of St. John and its Relation to the Other Three Gospels*; Trans. Samuel and Loni Lockwood, N.Y., 1982.

Steiner, Rudolf; *Christ and the Spiritual World: The Search for the Holy Grail*; Trans. Charles Davy and D.S. Osmond; London, 1963.

Steiner, Rudolf; *At the Gates of Spiritual Science*; London; 1970.

22. Bio-Dynamic Agriculture

A World-Wide Agricultural Movement

Although Steiner had an immense grasp of the social sciences and other mental disciplines, such as mathematics, he also had an astonishing practical aptitude to such areas as agriculture and architecture. His agricultural course was given in 1924 and a world-wide bio-dynamic agricultural movement has developed from it.

The Earth as a Living Organism

Steiner viewed the earth as a living organism whose life was intimately related to the influences of the moon, the planets, the sun and the whole realm of the stars. He also claimed that the planet Earth was being poisoned and was in danger of dying from pesticides, herbicides, and chemical fertilizers. The earth had to be enlivened again. This could be accomplished in two ways. It could be prepared to receive naturally occurring cosmic forces and its soil could be enriched by composts and manures.

Instinctual Peasantry to Conscious Science

Steiner delivered his Agriculture Course to practical farmers between 7 June and 16 June 1924. To those unacquainted with his usage of such terms as '**etheric forces**' and '**astral forces**' there was ample reason to mistake his discourses for a revised, instinctual atavism. At first sight he appeared to be advocating the return of a **peasant wisdom**. In fact he was doing so but he was doing it with a **conscious wisdom** which was scientific not instinctual

The Farm as a Factory or a Self Sufficient Living Entity

Steiner warned farmers, graziers and apiarists of the dangers in the trend towards the commercialization and industrialisation of agriculture. He not only saw the Earth as a **living organism**, he saw the farm as a **living entity** which had the potential for **self-sufficiency**. Ideally animals should be fed on the plants grown on the farm, and the animal's 'manure should be **recycled** as fertilizer after it had been '**dynamised**'. Steiner emphasised **quality** over **quantity**, and **sufficiency** over **exploitation**. The farm was to be treated as an organism and not as a factory.

Silica and Limestone

Today, the forces of plant and animal growth owe much to the silica and limestone of the earth as it is mediated through clay. Chemically, the process may be described as the interaction between SiO_2 (silicon dioxide), CaCO_3 (calcium carbonate) and Al_2O_3 (aluminium oxide). The limestone nature mediates the forces which emanate from the inner planets of Moon, Venus and Mercury. These forces effect the means of reproduction. The outer planets of Mars, Jupiter and Saturn have forces which effect the foodstuffs of animals and man through the siliceous nature of the earth.

The Philosophy of Holism

Steiner's approach to agriculture was the same as his approach to medicine. It is based on a philosophy of **Holism**. It emphasises the importance of understanding, the '**parts**' in relationship to the '**whole**'. The 'whole' is not merely the sum of its 'parts'. Holism emphasises the importance of **inter-relationships** and **processes** Atomism emphasises the distinctiveness of smaller and smaller entities. Holism is typically synthetic and planar whereas Atomism is analytic and particular. There is obviously a place for both approaches.

Forces - Real or Auxiliary Entities

Modern scientific thinking derives its conceptual framework from the principles outlined by the Austrian physicist Ernst Mach (1838-1916). He distinguished between 'real' sensory entities and 'auxiliary', concepts. Thus for Mach concepts such as 'force', 'energy', 'matter' and 'atom' were only auxiliary concepts of a metaphysical nature. However, Steiner rejected the concept of 'force' as an auxiliary one. It led to a **one-eyed colour-blind reductionism** in which the scientist was a mere spectator. Whereas **Kinetics** is concerned with observation without reference to force, **dynamics** admits the reality of forces. Steiner's agriculture is **bio-dynamic** not bio-kinetic. Forces were real entities. They existed in magnetism, electricity, gravity and life itself. Forces are real entities not auxiliary concepts.

Rhythms, Seasons, Phases of the Moon, Life Cycles, Cosmic Influences

The agricultural scientist is concerned with many more things than substances. Like the farmer he has to take into account the rhythms within individual plants and animals and the rhythms which emanate from the terrestrial and celestial environment. Rhythms and pulsations are as much part of nature as chemical elements. Plants and animals have reproductive cycles and life cycles. The farmer is concerned with seed-time and harvest. He has an almanac which tells him about tides and the appearance of frost and the phases of the moon. The bee-keeper has to know about blossom-time and the altitude of plants. Steiner drew attention to the forces emanating from the inner and outer planets and the sidereal forces of the cosmos. The farmer had to have an intimate knowledge of cycles, rhythms and seasonal effects.

Utilizing and Enhancing the Terrestrial and Celestial Life – Forces

Steiner taught that the earth was a **living organism** and not simply an aggregate of lifeless, chemical compounds. According to Steiner the mineral composition of the earth had undergone a massive metamorphosis from an attenuated warmth substance, through a fluidic, more plastic formation until its present hardened, crusty, earthy, mineral formation. In this process the size of the earth had shrunk. The plants and animals were sublimated from the Earth's constituent elements. **The living earth created living beings**. Matter arose from life forces not vice-versa. Unfortunately the living earth has sacrificed a great deal of her **fecundity**. Steiner devised procedures for enlivening the earth. These involved the preparation of dynamised sprays and harmonised manures.

Dynamised Sprays and Harmonised Manures

The debilitated life-forces of the earth could be enlivened in two ways. Firstly by the **provision of a dynamised medium** and secondly by the provision of **nutritious manures**. **Steiner's preparations enable the telluric, atmospheric and solar forces** to be more effective. **Formula 500** is prepared from cow manure stuffed into cow horns. These stuffed horns are buried in rich soil for six months during **winter** when the earth is most inwardly alive. The manure is irradiated by the horns and the seasonal solar forces. It is then placed in a drum of slightly warm water and stirred in the manner of a vortex. The potentised water is then sprayed over the tilled soil.

Formula 501

Formula 501 is prepared from cow horns filled with a fine, mealy powder of **silica** (or quartz, orthoclase or feldspar). On this occasion the horn with its contents are buried in the soil during **summer**. The horns are retrieved in late autumn and the contents kept to the following **spring**. Very minute quantities of irradiated silica are dissolved in water and sprinkled over tilled soil or vegetable gardens according to indications provided by Bio-dynamic Agricultural Associations.

Formulas 502 - 507 (See Lecture 5 of the Agriculture Course).

These preparations are intended to assist in the fermentation of manures and provide nutritive elements to soil.

Steiner declared:

'Manures in future should not be treated with all manner of chemicals; but with these five: yarrow, camomile; stinging-nettle; oak-bark and dandelion'. Valerian juice is added to the manure in very fine proportions according to directions.

Steiner added:

'With the help of these six ingredients you can produce an excellent manure - whether from liquid manure or ordinary farmyard - manure or compost'. (See p.100)

SELECTED REFERENCES

Hauschka, Rudolf; *Nutrition*; Trans. Marjorie Spock and Mary T. Richards; London, Vincent Stuarts and John M. Watkins; 1967.

Kolisko, Eugen and Lily; *Agriculture of Tomorrow*; Bournemouth, England, Kolisko Archive Publications, 1978.

Steiner, Rudolf; *Agriculture*; Trans. George Adams. Pref. Ehrenfried Pfeiffer; London: Biodynamic Agriculture Association, 1977.

23. Rudolf Steiner as a Scientist

Natural Science and Anthroposophical Spiritual Science

'Natural science has reached the point where it observes only what is corpse-like in nature. Anthroposophical Spiritual Science must find the corresponding original essence (of the 'corpse') which exists within the human being but in earlier stages of the evolution of the cosmos were part of outer reality.'

The Origins of Natural Science Quoted by Lindenberg p.598

Historical Perspective Leading to the Hypothetico – Deductive Model

Rudolf Steiner had an encyclopaedic view of man's investigation of nature. His historical perspective ranged across early Greek natural Philosophy to the 15th and 16th European scientists and those of the modern era. In his '**Riddles of Philosophy**' he demonstrated a familiarity with the scientific studies of such eminent scientists as Galileo, Bacon, Newton, Darwin and Einstein. His years of studying the scientific works of Goethe endowed him with a perspective which went beyond the present mathematical interpretation of nature. This had only produced a narrow materialistic reductionism. Its dependence on the hypothetico-deductive model of investigation only made provision for the calculable. It omitted the working of the spiritual in nature.

Higher Mathematics and Theoretical Physics

It would probably come as a surprise to both believers and non-believers in Steiner's teaching to learn that he was quite skilled in the various forms of **higher mathematics and theoretical physics**. This fact is not widely known. He is sometimes ridiculed for proposing that there could be a science of the occult. It needs to be borne in mind that before he promulgated a science of the occult he had taken the trouble to become a scientist of the outer world. The true scientist could also investigate the inner world of man even if it required a different methodology. (see Sect.8)

Modern Science only at Transitional Stage

Steiner believed that modern science was no more than a prelude to a larger stage of consciousness which was still evolving. The soul will, in due course, encounter realities beyond those of the senses.

Ernst Lehrs summarised Steiner's characterisation of modern science in the following manner:-

'the present mathematical interpretation of nature (is at) a transitional stage of human consciousness – a kind of knowing which is on the way from a past pre-mathematical to a future, post-mathematical form of cognition,'

Man and Matter p.12

In this process Projective (Synthetic) Geometry will play an important role in opening up the possibilities of a new approach to the investigation of nature.

Ideas and Meanings as the True Objectives in Science

For Steiner, Science was concerned with seeing how ideas work in nature. It was not totally pre-occupied with the control and exploitation of nature or its measurement. Henri Bortoft in '**Goethe's Way of Science**' cites Gadamer's '**Truth and Science**'. His citation expresses Steiner's approach to science in these words:-

*'The recognition that the objects of cognitive perception are **Meanings** and not sense data shows us the world is not an object but a text'*

(see Bortoft p.347)

Bortoft goes on to describe Goethe's approach as '**the hermeneutics of nature**' i.e. a text that has to be read.

Twelve Senses Rather than five

The modern scientist adopts the posture of an 'outside observer' of what he is observing with his senses. Steiner openly challenged the importance that modern science had ascribed to the role given to sensory information. While Steiner did not minimise the importance of sensory data he identified twelve senses rather than five. He claimed that there were four physical senses, four spirit senses and four soul senses. These senses had to be understood as polar pairs (see section 7 p.43). Sensory information, however, was subject to the processes of perception. Furthermore, percepts had to be related to information in the memory bank before concepts could be deduced by thinking. If, in fact, there were twelve senses then modern science was presenting an incomplete understanding of nature.

Epistemological Foundations of Scientific Methodology

Modern scientific investigation rests on certain assumptions about **reality** and **life**. It assumes that **matter** or substance existed before life and that life arose out of matter. Steiner did not share these assumptions. He maintained that matter had **ponderable** and **imponderable** states. The ponderable states were:- **solidic, fluidic and gaseous**. The imponderable states were:- **life ether, sound or chemical ether and light ether**. The **warmth ether** held an intermediate position between the ponderable and imponderable zones. **For Steiner life preceded matter**. Life had form – creating properties and utilized the properties of space to express itself. Modern science rests on the assumption that science can only accept knowledge of **sense percepts** as valid data. Steiner believed that **thinking was an organ of perception**. Furthermore he identified twelve senses not five. The twelve senses were organised into six polarities. Steiner did not believe that the casual mode of understanding events in the physical world could be applied to the organic or psychological realms. These differences about axioms and assumptions should not be used to suggest that Steiner had an unscientific mind! After all, a scientist of whatever ilk, still has to depend on thinking when he is investigating! Steiner thought of himself as a scientist but one with an enlarged epistemological base.

Space, Time and Causality

Space, time and causality are three organisational concepts used by scientists to describe relationships in the world. These concepts or categories were called **apriori** by Kant because their existence could not be proven by exercising the senses. You cannot see space, time, causality, gravity, light, force and so on. These concepts are discovered by thinking and reinforced by sensory experience.

Space is commonly believed to consist of three dimensions. However, Steiner proposed a space which was polaric. He worked in a geometry of **space and counterspace!**

Time is commonly believed to have a past, a present and a future. It is also believed to proceed invariably from the past to the future. This is known as the 'arrow of time'. Steiner did not limit time to this condition. In counterspace time is the reciprocal of radial displacement. Steiner understood this and applied it.

Causality is a relationship between two events in which the antecedent event produces an invariant consequence. Steiner also made allowance in his thinking for future events to be the cause of present ones. **Teleology** had a place as well as causality.

While causality conceives time as moving from the past to the present teleology conceives time as moving from the future to the present.

Pariah of Orthodox Science

Rudolf Steiner gave some remarkable scientific indications which run counter to scientific orthodoxy. These are ignored or ridiculed as the bemusings of an amateur dilettante. However, Steiner stood at the forefront of theoretical physics. His indications

arose from the different assumptions he made about the nature of space, time, causality, matter, force and light. For example Steiner disagreed with the Danish astronomer Ole Roemer (1644 – 1710) that light had a finite velocity. He espoused Goethe's theory of colour rather than Isaac Newton's theory. He took issue with the Copernican view of the solar system and he spoke of the lemniscatory paths of the planets instead of the elliptical pathways. He also challenged the atomic hypothesis. In addition to the elements he identified four kinds of 'ether'. These claims appear amateurish and misinformed. However, they are derived from Steiner's understanding of space and counterspace and the linkages between them. Although orthodox science has not come to terms with these concepts it has no difficulty in accepting the concepts of matter and anti-matter, gravity and anti-gravity and so on. These concepts are accepted by most people whereas Steiner's concept of counterspace is readily dismissed.

Space

Sir Isaac Newton's approach to space was that of a huge empty box with no sides, continuing indefinitely in all directions. Recent astronomical thinking has advanced the understanding of Newton by claiming that the universe is expanding and it is expanding at an increasing rate! Nobody, it seems, has asked the question 'what was beyond the space originally occupied by the universe?' Clearly astronomical thinking about space has reached a logical impasse. Newton's physics assumed Euclidean geometry AND can work with the polarity of modern projective geometry. Steinerian astronomy assumes modern projective geometry AND can work with the concepts of space and counterspace.

Space and Counterspace

The following note is an excerpt from <http://www.nct.anth.org.uk/counter.htm> 24/04/2017:

Counter space is the space in which subtle forces work, such as those of life, which are not amenable to ordinary measurement. It is the polar opposite of Euclidean space. It was discovered by the observations of Rudolf Steiner and described by Louis Locher-Ernst. Instead of having its ideal elements in a plane at infinity it has them in a "POINT at infinity". They are lines and planes, rather than lines and points as in ordinary space. We call this point the counter space infinity, so that a plane incident with it is said to be an ideal plane or plane at infinity in counter space. It only appears thus for a different kind of consciousness, namely a peripheral one which experiences such a point as in infinite inwardness in contrast to our normal consciousness which experiences an infinite outwardness.

Nick Thomas has explored the ideas that objects existing in both spaces at once are subject to strain and stress, and an analysis of these leads to new approaches to gravity and other forces.

Modern Projective Geometry

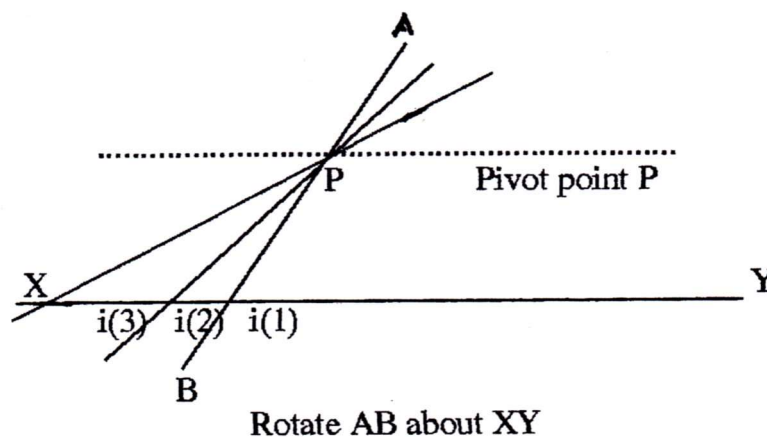
Carl Friedrich Gauss, Janos Bolyai, Nicolai Lobachevsky and Georg Riemann were pioneers of radical new thinking about the geometry of space. Might space be curved? Riemann even asked the question: 'could gravity be a product of curvature in higher dimensional space?' There can be little doubt that Rudolf Steiner was not only influenced by Goethe. He was also indebted to the pioneers of the new geometry. George Adams, Olive Whicher, John Wilkes, Lawrence Edwards and more latterly Louis Locher-Ernst and Nick Thomas have developed many of the ideas of Rudolf Steiner concerned with the post – Euclidean geometry of space. A central concept is that space

has a negative counterpart known as counterspace. This counterspace can be approached and understood by modern projective geometry which understands the sphere as mediating between the point and the plane. Counterspace is polar to space as the plane is polar to the point.

The Uniting of Time and Space (Space/Time)

A simple exercise in projective geometry using parallel lines will demonstrate the unification of time and space.

If we imagine two non-parallel lines AB and XY in the same plane and XY remains fixed while AB is rotated about a point P. Let the initial point of intersection be a point i_1 on XY. Now rotate AB about its axis P. We notice that the new point of intersection i_2 is further to the left. Continue the rotation through i_3 , i_4 and so on until the lines are parallel. At this stage i_1 has disappeared to the infinite point. Continue the rotation and what do we observe? We see that i appears to the right of XY. It leaves from the left and reappears from the right. Thus, in the logic of projective geometry parallel lines do meet! They meet at the infinite point which we have already seen is identical to the infinite plane.



Scientific Lecture Courses

There are, however, a number of lecture series given by Steiner which treat scientific topics from a more orthodox perspective. The two series, in particular, are the ten lectures known as the *First Scientific Lecture Course on Light* delivered at Stuttgart from 23rd December 1919 to 3 January 1920; and the fourteen lectures known as the *Second Scientific Lecture Course on Warmth*. This second course was also delivered in the Waldorf School at Stuttgart in 1920 (1 March to the 14th March). In these two courses Steiner gives ample evidence that he was well acquainted with the science of his day even if he did not agree with a great deal of its underpinnings. Steiner also delivered a series of 18 lectures on *'The Relation of the Diverse Branches of Natural Science to Astronomy'* (1-18 Jan. 1921). His lectures on Agriculture and Medicine also contained evidence of a wide knowledge of orthodox science. However, one can detect in these five series of science-based lectures an open opposition to some of the axioms and assumptions of modern day scientific thought. Steiner did not agree with all of the epistemological foundations of modern science. He certainly did not agree with its materialism and determinism. Modern science erroneously characterised the scientist as an **'outside onlooker'**. Steiner regarded man as the greatest scientific instrument the scientist could possess. Man's thinking had to be included in the scientific observation process! Science was concerned with the alignment of man's thinking with the thinking inherent in natural phenomena.

Rosicrucian Magus

In my '**Nova Hermetica**' I ironically characterised Rudolf Steiner as a '**Rosicrucian Magus**'. Although this characterisation was not intended to be derogatory he does have some of the qualities of Dr Dee and Robert Flood. These may be listed:-

- He persists in using the nomenclature of the early Greek natural scientists.
- He identifies the elements as Earth, Fire, Air and Water.
- He treats the chemical elements as if they were processes rather than substances.
- He continually relates the microcosm (man) to the macrocosm (cosmos).
- He is more concerned with forces than substances.
- He persists in the usage of the terms 'etheric' and 'astral' even though he assigns a different content to them. (see section 23 for further details).
- He utilizes the property of metals in his medicaments (by a process of vegetablisation).
- His holistic approach to medicine and his adoption of the terms used by Galen and Paracelsus in the description of temperaments can be found in Rosicrucian literature.

In addition to these characteristics Steiner adopted a Goethean mind- set. These combined characteristics have sometimes set him apart from orthodox science and invited ridicule.

Goethe and Newton on Scientific Methodology

Steiner had great regard for Goethe and called him the Galileo of the Organic. Steiner not only adopted Goethe's thoughts about the metamorphosis of plant life, he espoused Goethe's objection to Newton's colour theory. Although Goethe was not born until 22 years after the death of Newton, these two scientists represent two entirely different approaches to the understanding of the natural world. Their methodologies provided western science with choice between two fundamentally different approaches to **understanding** nature. It also provides two fundamentally different sets of **outcomes**.

Optics (Newton) and Farbenlehre (Goethe)

The different scientific approaches of Newton and Goethe may be seen in their examination of colour. When Goethe examined the colour theory of Newton he provided an entirely different explanation for the origin of colour than did Newton.

Goethean colour theory maintains that colours arise from the interaction of 'lightness' and 'darkness'. Newton claimed that colour was only contained in 'lightness'. Goethe's colour theory is **polaric** in nature. It ascribes **equal value** to lightness and darkness.

Goethe's colour theory also introduces **a moral element** into the formation of colour.

Colours are **new formations** which arise from "**the deeds and sufferings of light**".

Goethe's *Farbenlehre* describes colour as a process which **includes** man's **sight** and man's **experience** as part and parcel of colour formation. On the other hand, Newton describes colour formation as if it were a phenomena which excluded what took place in man. For Newton colour could only be understood if man was regarded as an **outside onlooker**. Newton described colour as if it existed independently of man.

	Goethe (1749-1832)	Newton (1642-1727)
Participant v. Outside Obs.	Man included in observation process.	Man as outside onlooker.
Man v. Instrument	Man as instrument.	Man and instrument.
Light + Dark v. Light only	Light and Darkness both contribute to colour.	Colour only in light.
Thru thinking v. Plus Thinking	Observation through thinking.	Observation plus thinking.
Subjectivity v. Objectivity	Colour has a moral quality ('deeds and sufferings of light'). They are new creations.	Colours are not new. They exist objectively. Creations are not formed by moral deeds.
Colour Formation	Colours arise from interpenetration of light and darkness. Light thru darkness yields reds. Darkness thru light yields blues.	Colours arise from the refrangibility of 'light'.

For Goethe colour formation involved an activity within man.

Insights Rather Than Proofs

Science, according to Steiner, should be more concerned with obtaining insights rather than proofs. The nature of reality was concerned with '**becoming**' not in finished products. Proofs were concerned with legality and belonged to the legal profession not the scientific one.

Ponderable and Imponderable Matter

There is little wonder that Steiner reached many different conclusions from the orthodox science of his day. It was basically that his axioms and assumptions were different. One different starting point was Steiner's adoption of the space terms 'ether' and 'ethereal'. 'Ponderable matter represents only one pole in a polar process ... there is (also) a negative imponderable, - anti-ponderable – ether-substance on the other' (*The Plant Between Sun and Earth*, George Adams and Oliver Whicher, p. 101). Steiner was helped in his understanding of the concepts of 'space' and 'anti-space' through his grasp of the principles of projective geometry. He applied many key concepts from this planar geometry to his treatment of physics. These applications led him to many conclusions that modern quantum physics is only now discovering.

SELECTED REFERENCES

- Editors Stephen Edelglas, George Maier, Hans Gebert and John Davy; *The Marriage of Sense and Thought*; Lindisfarne Books, N.Y.; 1997.
- Hauschka, Rudolf; *The Nature of Substance*; Trans. by Mary T. Richards and Marjorie Spock; Vincent Stuart Ltd; London, 1966.
- Steiner, Rudolf; *First Scientific Course; Light*; 2 Vols. Trans. George Adams; Foreword by Guenther Wachsmuth. Forest Row, Sussex; England. Steiner Schools Fellowship; 1949.
- Steiner, Rudolf; *Warmth Course – Second Natural Scientific Course*; Trans. George Adams and revised by Alice Barton Wulsin and Gerald Karnow; Mercury Press, Spring Valley, N.Y. 1988.
- Adams, George; *Physical and Ethereal Spaces*, Rudolf Steiner Press; London, 1965.
- Locher-Ernst, Lous; *Space and Counterspace*, AWSNA; 2003
- Bockemuhl, Jochen (Editor); *Towards A Phenomenology of the Etheric World*, Anthroposophic Press Inc, Spring Valley, NY 1985
- Thomas, Nick C.; *Space and Counterspace*, Floris Books; 2008.
- Lindenberg, Christolph; *Rudolf Steiner a Biography*; Steiner Book; 2012.

24. The Four Ethers

The Scope of Steiner's Scientific Thought

Rudolf Steiner had an amazing synthetic style of thinking. He seemed bent on building on the thought of others. In his inclusive style he drew together insights from early Greek thought, the mathematics of Hermes Trismegistus and Pythagoras, the alchemy and algebra of Spanish Islam, the chemistry of Paracelsus and the Rosicrucians, the astronomy of Bruno and Kepler, the science of Goethe and the higher mathematics of Riemann and Lobachevsky.

The Four Elements- Outer and Inner Correspondence

Steinerian science begins with the identification of modes of organisation. The wholeness of the outer world can be divided into four fundamental elements which combine with each other to make the unified whole. These elements are earth, water, air and warmth (fire). Steiner noted that these elements corresponded to the inner nature of man.

Outer World	Inner World
Earth	Solidity
Water	Fluidity
Air	Acquiescence
Warmth	Combustion

The four elements and their correspondence in man provide a network of inter-relationships. They are layers of the 'etheric' or 'ethers'.

See J. Bockemuhl Article in '*Towards a Phenomenology of the Etheric World*'.

Elements and Ethers

Steiner discovered that in addition to the elements there were four ethers. Nick Thomas reported that:

'on one occasion Steiner reported that ether is essentially two-dimensional.'

(see Ch.7. *The Ethers and Light of 'Space and Counterspace. A New Science of Gravity, Time and Light*) by Nick Thomas p.69)

The Nature of Light

Most scientists agree that light is invisible. Colours are an outcome of the interference of an apparatus with the light. The spectral colours appear at a boundary edge. The so-called linear spectrum consists of seven colours. These colours appear between Infra-red and Ultra Violet:-

- Infra-Red
- Visible Spectrum
- Ultra Violet

Scientists have identified different **qualities** in these divisions. The Infra-Red end exhibits **warmth**, the Visible Spectrum exhibits **colour** and the Ultra Violet exhibits **chemical properties**.

The Rainbow

Rudolf Steiner explained that the spectrum of colours of the rainbow yielded 12 colour conditions not 7. In reality there is never a single rainbow. A second rainbow is always present even if it is not obvious. Steiner enjoins the student of optics to consider the clearer rainbow and the accessory rainbow as a unified phenomena. J.L Benson has

attempted to clarify this phenomena by identifying two spectra. There was a 'Dark Spectrum' (sensory) and a 'Light Spectrum' (supersensory). Rudolf Steiner preferred to combine the two spectra into a colour circle.

The Colour Circle

The linear spectrum of 7 colours extends from Infra-Red to Ultra-Violet. Both ends are indeterminate and extend to infinite, invisible regions. When this linear spectrum is bent into a colour circle the 12 colour nuances may be detected. Surprisingly, an entirely new colour appears opposite green. It is known as magenta or 'peach- blossom' or 'incarnate'. It is a relative of purple. (see section 10 on Polarities).

Magenta

'Magenta cannot be made by mixing red and violet as one mixes blue and yellow to make green... this hue is the highest intensification of which colour is capable, a colour which is not fixed but exists in living interplay!' (Rudolf Hauschka's 'The Nature of Substance' p. 91). It is little wonder Rudolf Steiner identified this 'heavenly purple' as **life-ether**, the colour of rosy cheeks!

The Four Ethers

In his lecture series on 'warmth' Steiner introduces the student to his understanding of the different 'ethers'. He differentiates four 'ethers' which are combined in light:

- Life ether,
- Sound ether,
- Light ether, and
- Warmth ether.

These etheric divisions of light were forces of a peripheral nature. They radiate from without inward. Rudolf Steiner describes them as proceeding from the infinite periphery rather than from a single source. Popplebaum comments:-

'To understand the nature of the etheric body, it is absolutely necessary to place it in such a counter space'

'Towards a Phenomenology of the Etheric World', (p. 230)

Warmth as a Mediator between the Ponderable and Imponderable Realms

These ethers are counterparts to ponderable substances and can be arranged diagrammatically as follows:

Z	Life	}	Imponderable realm
Y	Sound/Chemical		
X	Light	}	Ponderable realm
	HEAT or WARMTH		
	Gaseous realm		
	Fluid		
U	Solid		

Notes:

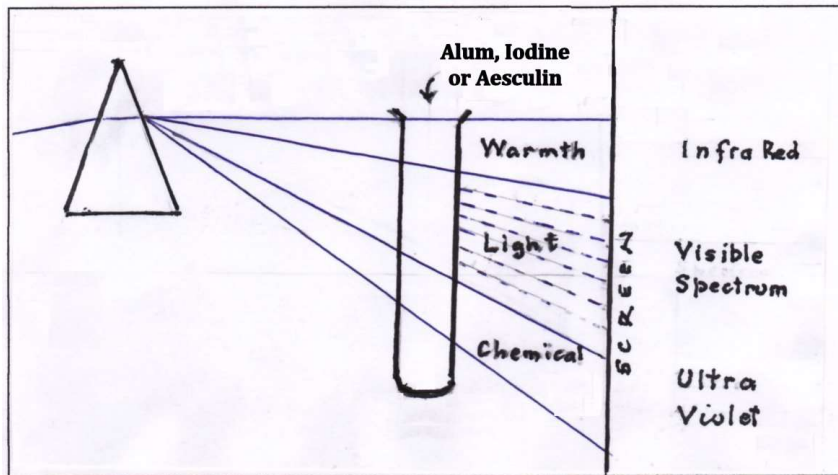
- (i) The heat or warmth zone has an intermediate position between the etheric or imponderable realm and the material or ponderable realm. It is ether and matter at the same time.
- (ii) The light ether and the gaseous realm were once united as also the sound ether and the fluid realm and the life ether and the realm of solids;

(iii) The U realm lies below that even of solids and permeates them.

Examining the Fourfold Activity of the Etheric

If a vessel containing a solution of **Alum** is interposed between the 'rays' of the spectrum and a screen, the **warmth** end of the spectrum disappears. The visible or **light** rays disappear if **Iodine** is interposed. If the vessel is filled with **Aesculin** the **chemical** rays disappear. Steiner called these three activities of light '**ethers**'. The fourth ether he called the '**life ether**'. The existence of this formative force has proven to be difficult to verify by experimental means. Steiner suggested that the solution would not be found in viewing the matter in a mechanical quantitative way. The life ether was only understandable as a qualitative transformation.

THREE PARTS OF THE SPECTRUM



According to the content of absorption one of the three parts is extinguished:

- Through Alum in solution- Warmth
- Through Iodine in solution- Light
- Through Aesculin in solution- Chem. Action

(After R Hauschka- 'The Nature Of Substance'. P. 92)

Ethers and Elements in Earth's Evolution

Steiner understood matter or element as being a combination of both ponderable and imponderable qualities. The ponderability aspects were warmth, air, water and solidity. The imponderability aspects were warmth ether, light ether, sound ether and life ether. As the earth evolved the ethers separated from the ponderable element except for warmth. It is both ether and element at the same time.

The following diagram illustrates the part played by the ethers in the first four phases of the Earth's evolution according to Steiner.

Old Saturn Evolution	Old Sun Evolution	Old Moon Evolution	Earth Evolution
			Life Ether
		Sound Ether	Sound Ether
	Light Ether	Light Ether	Light Ether
Warmth - Ether & Element	Warmth - Ether & Element	Warmth - Ether & Element	Warmth - Ether & Element
	Air Element	Air Element	Air Element
		Water Element	Water Element
			Solidity

Reproduced from *Man and Animal* by Hermann Popplebaum, Athroposophical Pub. Co.; London; 1961. See p. 51

Qualitative Physics

Marion Griffin in *Magic of America* discusses the ethers:

Physical state	Forces	Colours	Humours/Temperament	Geometry
Solid	Magnetism	Lilac	Melancholic	Rectangle
Liquid	Sound	Blue	Phlegmatic	Crescent
Gas	Light	Yellow	Sanguine	Triangle
Energy	Warmth	Red	Choleric	Circle

See p. 69, '*The Griffins in Australia and India*', *The Complete Works and Projects of Walter Burley Griffin and Marion Mahony Griffin*. Edited by Jeff Turnbull and Peter Y. Navaretti, The Miegunyah Press, 1998.

Towards a New Physics

There is much in Steiner's scientific approach that challenges the one-sided, one-dimensional reductionism of modern scientific inquiry. If taken seriously one can only conclude that it would not only lead to a new science but it would lead to an entirely new culture.

SELECTED REFERENCES

- Lehrs, Ernst; *Man or Matter – Introduction to a Spiritual Understanding of Nature on the Basis of Goethe's Method of Training Observation and Thought*; Rudolf Steiner Press; London, 1985.
- Wachsmuth, Gunther; *Etheric Formative Forces in Cosmos, Earth and Man: A Path of Investigation into the World of the Living*; Trans. Olin D. Wannamaker; London, 1932.
- Hauschka, Rudolf; *The Nature of Substance*; Translated by Mary T. Richards and Majorie Spock; Vincent Stuart Ltd, London; 1966
- Benson, J.L.; *The Inner Nature of Color*; Steiner Books; 2004
- Towards A Phenomenology of the Etheric World*; Contributions by J.Boekemiih| et-al. Anthroposophic Press Inc; Spring Valley; N.Y.; 1985

25. Rudolf Steiner as an Artist

In a life of prodigious output, Rudolf Steiner brought his artistic and imaginative gifts to every aspect of his endeavours. In areas such as mathematics, philosophy, agriculture, apiary, medicine, architecture and the sciences one can easily detect an artistic treatment. However, in the traditional fields of the arts he displayed a breadth and originality of treatment that, alone, would have earned him a reputation as a genius of the highest order.

Art as an Image of Man

Anne Bancroft writes of Steiner:

‘(He) ... related each of the arts to man’s bodies – i.e.
 architecture reflects the physical body
 sculpture reflects the etheric body
 painting reflects the astral body
 music reflects ego or Spirit
 poetry reflects the Spirit-Self
 eurhythmy reflects the Life-Spirit.’

(see p. 270 *Twentieth Century Mystics and Sages*).

(a) *Literature*

In the province of Belles Lettres, Steiner gained his grounding as the editor of the *Magazin für Literatur*. His relationship with the Independent Literary Society which supported the magazine brought him into close contact with poets, dramatists, and writers of Germany in the closing years of the 19th century. During this formative period, Steiner gained insight and skills into the production and staging of many contemporary plays. This experience, allied to his editorial duties in the production of the magazine, flowered later in his life with his own written creations.

(i) *Lectures*

Although Steiner wrote some 20 books it is his lecturing activities that are given most prominence. These lectures, numbering some 6000, were seldom revised by Steiner before publication by the Anthroposophical Press. They do, nevertheless, portray an artist at work in full command of his subject, complemented by highly developed skills of presentation. Steiner’s audiences ranged from members of the Berlin Workers’ School to the Berlin Printers’ Union, the Brockdorf’s Theosophical Circle, the Association for the Threefold Social Organisation, the workers in such factories as Daimler, Bosch and the Waldorf-Astoria cigarette factory, theologians, medical doctors, farmers, beekeepers and, of course, to members of the Anthroposophical Society. The delivery of 6000 lectures over a 30-year period averages out at 200 lectures per year. This activity alone would constitute more than one life-time’s work.

(ii) *Poetry and meditative verse*

Meditation became a ‘living necessity’ for Steiner’s inner life and from it flowed, as if a bi-product, a great deal of verse. Some of this verse appears as *Calendar of the Soul* which is a collection of inspirational verse covering a 33-year cycle from Christmas 1879 to Easter 1912.

(iii) Mystery plays

Steiner's thought was, in a special sense, concerned with the renaissance of mystery wisdom. He lectured on the Egyptian mysteries, the Eleusian and Mithraic mysteries, the Sun mystery of the Palladium, the mystery of Golgotha, the Nordic mysteries and so on. He regarded the death and resurrection of the Christ as the fulfilment of these ancient mysteries. The Goetheanum was, in a real sense, a modern temple in which the rituals of the mysteries could be enacted in a form suitable to the needs of modern Man.

It was against this background that Steiner wrote his four mystery dramas:
The Portal of Initiation
The Guardian of the Threshold
The Soul's Probation, and
The Soul's Awakening.

These dramas were originally performed in a rented theatre in Munich but the Goetheanum was conceived as their natural home.

Steiner was greatly influenced by Goethe's fairy tale *The Green Snake and the Beautiful Lily*. *The Portal of Initiation* is a metamorphosed form of the elements of that fairy tale. The present Goetheanum is probably the only place that has ever staged Goethe's *Faust* Parts I and II.

(b) Speech

Steiner took a great interest in speech and the Goetheanum was known alternatively as the 'House of the Word'. The original Goetheanum featured the seven timbers of the classical violin and its acoustic properties were designed to enhance the power of the spoken word. The Goetheanum has been an acclaimed venue for the oral arts of recitation and declamation ever since it was built.

(c) Eurhythmics

Eurhythmics was a new art form developed by Rudolf Steiner. It is a form of 'visible speech' which applied specific gestural forms to vowels and consonants. It incorporates principles of movement, special postures, choreographic skills, rod exercises, costume effects and techniques of keeping and maintaining rhythm. Today there are over 20 eurhythmics training schools and it also forms part of the curriculum of Waldorf schools.

A therapeutic form of eurhythmics known as curative eurhythmics has also developed from the original form taught by Steiner to his first pupil, Lori Smits.

(d) Painting

Steiner adopted a novel approach to painting which gave primacy to colour rather than form. He used special dyes with preservative properties on his ceiling paintings in the Goetheanum and also supervised the tinging of the four great stained-glass window triptychs in the north and south wall. These windows filtered the light and bathed the space with colour. Steiner had a great preoccupation with colour and used it to great effect in the staging of plays and eurhythmics performances. Indeed, Steiner developed his own theory of colour along Goethean lines. Students of Waldorf schools are encouraged to use a 'wet-in-wet', or veil painting technique, in which forms arise out of the interplay of the colours themselves. An extension of Steiner's pre-occupation with painting and colour theory has led to the development of art therapy in recent years.

Steiner's attention to costumery may also be considered an aspect of colour in movement.

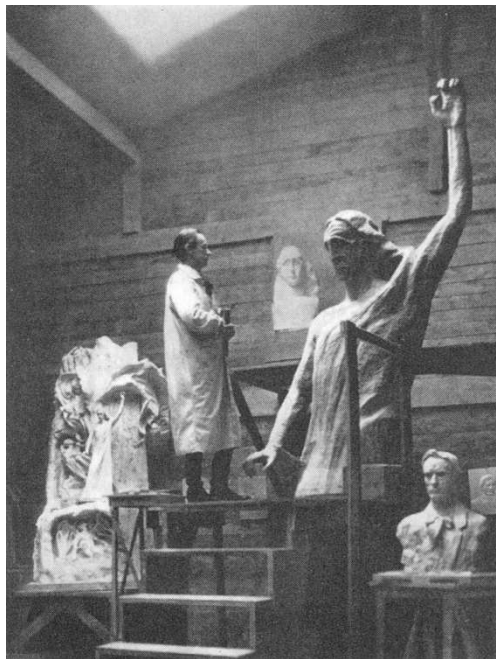
(e) Glass engraving

Steiner also developed an engraving technique which produced images and forms in the coloured Belgian glass used in the windows of the Goetheanum. "The deeper the engraver's tool cut, the lighter the colour, and where the glass was untouched, it glowed in deep crimson" (*A Life of the Spirit*, Henry Barnes, p. 119). In order to do his engraving work Steiner built a special 'glass house' studio on the site of the Goetheanum.

(f) Music

Although Steiner had no musical performance skills he was able to lecture on many aspects of musical theory to accomplished musicians. He perceived the fundamental relationship of form and tone. For Steiner, chemistry was 'frozen music'. He traced the origin of music from the harmonies of the spheres. The three elements of melody, harmony and rhythm were imaged in Man. The melody resembled a thought which was developed by the imagination. Rhythm was related to the will forces and when harmonies were experienced man lived strongest in his feelings.

Again, an offshoot of Steiner's teachings about musical theory has led to the development of a number of musical therapies of which tone eurhythmics is the best known. Curative education schools use harps extensively in tone therapy lessons.



*Rudolf Steiner at work on the statue
'Representative of Humanity'*

(g) Sculpture

Steiner regarded both of the Goetheanums as sculptured buildings and regarded the work of the architect as someone who sculptured forms. However, within this theoretical view he actually practised sculpturing skills in wood carvings. He could wield the chisel and the mallet with professional skill. Along with his helpers he worked on the huge wooden blocks which became the carved capitals of the seven pillars. Each pillar was carved from a different wood. The Saturn pillar and capital was carved from hornbeam, Sun from ash, Moon from cherry, Mars from oak, Mercury from elm, Jupiter

from maple and birch for Venus. Naturally, the technique of chiselling the motifs of the seven capitals varied with each of the timbers. The architraves connecting the pillars of the auditorium and the column of the stage rotunda were also richly carved in intricately flowing wave-like formations. A sculptured group, in laminated solid elm, became the focal point of the whole building. This carving stood nine metres high and its central feature, the Representative of Humanity, is depicted as triumphant over the luciferic spiritual forces and the opposing Ahrimanic forces of materialism. This carving was rescued from the conflagration and now stands in the second Goetheanum. Steiner worked on this massive wood carving with Edith Maryon. The carving strikes a dramatic effect and is an outstanding example of an artist with full mastery of his medium.

SELECTED REFERENCES

Bancroft, Anne; *Twentieth Century Mystics and Sages*; Henry Regnery Co; Chicago; 1976.

Steiner, Rudolf; *The Arts and their Mission*; Trans. Lisa D. Monges and Virginia Moore; N.Y. 1964.

Steiner, Rudolf; *Art in the Light of Mystery Religion*; Trans. Shirley M.K. Gandell et al; N.Y., 195.

(a) Literature

Steiner, Rudolf; *Four Mystery Dramas*; Trans. Ruth and Hans Pusch. North Vancouver, B.C., Canada; Steiner Book Centre; 1973.

Steiner, Rudolf; *The Calendar of The Soul*; Trans. E. Lehrs, Commentary E.C. Merry; London, 1970.

(b) Speech

Steiner, Rudolf; *Speech and Drama*; Trans. Mary Adams. Foreword by Marie Steiner; London, 1960.

Steiner, Rudolf and Marie Steiner; *The Nature of Speech Formation*; Trans. Winifred Budgett, Nancy Hummal and Maisie Jones; London, 1978.

(c) Eurhythm

Steiner, Rudolf; *Eurhythm as Visible Speech*; Trans. V. and J. Compton-Burnett and F.C. Duprovik; London, 1956.

Steiner, Rudolf; *Eurhythm as Visible Music (Eurhythm as Visible Song)*; Trans. V. and J. Compton-Burnett; London, 1932.

(d) Painting

Koch, Elizabeth and Gerald Wagner; *The Individuality of Colour: Contributions to a Methodical Schooling in the Experience of Colour*; Trans. Peter Stebbing; London, 1980.

Mayer, Gladys; *Colour and Healing*; East Grinstead, Sussex, England; New Knowledge Books, 1976.

Steiner, Rudolf; *Colour*; Trans. H. Salter; London, 1977.

(e) Engraving

Barnes, Henry; *A Life For the Spirit*; Anthroposophic Press, N.Y. 1997. Esp. Ch. 6, pp. 113-127.

(f) Music

Steiner, Rudolf; *Art as Seen in the Light of Mystery Wisdom*; Trans. Shirley M.K. Gandell et. al. N.Y., 1955.

van der Pals, Lea; *The Human Being as Music*; Trans. by Alan Scott; The Robinswood Press, Stourbridge, England, 1992.

(g) Sculpture

Fant, Ake, Arne Klingborg and A. John Wilkes. Introd. Hagen Biesantz; *Rudolf Steiner's Sculpture in Dornach*. London, 1975.

26. Steiner's Contribution to Medicine and Pharmacology

1.

Principles and Scope of Medicine

The General Practitioner (G.P.) – Mechanic or Artist

The Westernised – trained G.P. has, in the 21st century, allowed himself to become a mechanic rather than a healer. Rudolf Steiner's Anthroposophical medicine is an attempt to reverse that trend. Steiner sought firstly to enlarge the understanding about **the bodies of man**. Secondly he sought to direct the attention of medicine to its original priestly – healing function. Anthroposophical medicine is also concerned with the healing of **the soul** and the healing of **the spirit**. Steiner advocated a dynamical approach to healing rather than a mechanical one.

Man As A Threefold Being

Steiner's Anthroposophical medicine is firmly based on his views about the nature of man. Man has a body (**soma**), soul (**psyche**) and a spirit (**pneuma**). Each of these constituents has their earthy/cosmic counterparts. The task of the physician is to understand the **relationships of the parts to the whole** (microcosm and macrocosm) and bring them into balance or harmony. (See section 16 for further details about Steiner's views on the nature of man).

Atomism and Holism

Anthroposophical medicine is a holistic approach to medicine. It appears at first sight to be an admixture of alchemical, Rosicrucian, homeopathic and herbalist insights. Yet it's more than this. Steiner's approach to medicine and healing not only developed out of his extensive learning and his powerful synthetic mind. It sought to provide a corrective to a one-sided reductionism which sought the origins of illness in smaller and smaller causative entities.

Relationships, Processes and Forces

Steiner sought to reveal man's relationships to larger 'wholes'. The Kingdoms of nature did not only exist outside of man. They appeared within man. The medical task was concerned with identifying these relationships and working within them. The same idea applied to man and the cosmos. The task of the Anthroposophical physician was to identify these **relationships** and apply them. Steiner's approach led him to work with **processes** and **forces** as well as substances.

Treating the Individual Not the Disease

Anthroposophical Medicine is an approach to healing which is founded on Rudolf Steiner's teachings about the nature of man. It has been said to be the most holistic of all medical philosophies. Practitioners adopt a holistic approach to healing and are concerned with the health of the soul and spirit as well as the health of the body. **It is an approach which focuses on treating the individual rather than the disease or disorder**. Steiner never claimed that his approach was a substitute for orthodox treatment. Just as he saw the **farm** as an agricultural **unit** he saw the human being as a unit which could be de-harmonised. The task of the physician was to **rebalance the forces** operating within the systems **within man** and **between man** and his **earthly and cosmic environment**.

The Polarity of Man's Physiology

Steiner's physiology of man saw man as a threefold organism of head, chest and limb system. This **integrated system** was also **polaric**. The cephalic or head system was polaric to the metabolic - system. These two poles were mediated by a pulmonary – circulatory system. In Steiner's holistic approach to medicine the 'thinking – pole' and 'metabolic pole' are mediated by the rhythmic system.

Rebalancing and Individualising Therapy

The physician's task was to **rebalance** the two polar tendencies of sclerosis or hardening (cephalic) and fever or inflammation (metabolic-limb system). Steiner's approach allowed for an **individualised** rather than a standardised approach to healing. It also made provision for a complementary application of artistic therapies. At Steiner's insistence, anthroposophical doctors are qualified registered medical practitioners. Such practitioners are familiar with the basic principles of homeopathy and testing procedures such as the capillary dynamic method, and the bio photon method. They are more likely to be found in the clinics of Germany and Holland than elsewhere.

Scope of Steiner's Lectures

As early as 1911 Steiner gave a series of lectures in Prague:

'An Occult Physiology'- McDermott describes it as consisting 'of eight systematic lectures' with special attention given attention to the blood as the instrument of the human ego.

'**An Occult Physiology**'- Steiner offended many of the allopathic medical practitioners with his holistic approach and his radical physiology. Steiner viewed the human being as the integration of three basically autonomous, yet integrating, organic systems viz. the nerve/sense system, the rhythmic system and the metabolic/limb system. He also challenged the distinction between motor and sensory nerves. For Steiner, all nerves are basically sensory and the impulse to action originates in the soul. The so-called 'motor' nerves function only as a means of registering the subtle changes in the corresponding metabolism of movement.

At 'the request of practising physicians Steiner delivered two lecture series: '**Spiritual Science and Medicine**' (1920).' This comprised twenty lectures. His four-lecture series: '**Anthroposophical Approach to Medicine**' was delivered in 1922.

In both these series Steiner explained that:

'the conceptions put forward are founded on a quite different basis from that of the various mystical, theosophical, and so called gnostic ideas'.

(See R. McDermott's *The Essential Steiner* p.408)

Other related works of Steiner include: '**Health and Illness, Nine Lectures to the Workmen at the Goetheanum**' (1922-1923). '**Fundamentals of Therapy: An Extension of the Art of Healing through Spiritual Knowledge**' (1925).

Rudolf Steiner's '**Curative Education: Twelve Lectures for Doctors and Curative Teachers**' (1924) is an applied aspect of Anthroposophical Medicine.

Sources of Steiner's Medical Approach

The source of Steiner's knowledge about medical matters is usually attributed to his innate clairvoyant skills. However, it is possible to sketch an evolutionary development of his thinking which is traceable to his first hand acquaintance with medical practitioners and to his own learning.

Personal Acquaintance

The beginnings of Steiner's interest in medical issues can probably be found in his early association with the herb gather **Felix Kogutski**. This association was extended to his encounters with **Dr Karl Hickel** who visited Neudorfl from Wiener – Neustadt. Later Steiner had a close association with Ita Wegman who had an interest in Swedish massage and hydrotherapy before she studied medicine. There can be no doubt Steiner was greatly influenced by the homeopathic – teachings of **Samuel Hahnemann (1755 – 1843)**. Samuel Hahnemann was an important influence on Steiner. This was because Hahnemann was attempting to utilize the 'forces' inherent in plants and metals. This approach appealed to Steiner and some of his adherents. The vegetablization of metals and the process of potentization and succussions are widely used by Anthroposophical physicians. The investigation of sensitive crystallization process originally devised by Ehrenfried Pfeiffer is thought to be a method of obtaining information about etheric forces.

Saint – Yves d'Alvevdre (1842 – 1909)

The French occultist Saint-Yves d'Alverdre and his theory of 'Synarchy' was popularised by the writer 'Papus' (Dr Gerard Encausse). Synarchy was 'the application' of a triune concept of the human organism to the human society. The cephalic, rhythmic and metabolic-limb systems of the human body were to have their sociological counterparts in the spiritual, legislative and economic life of each nation'. (See '*Rudolf Steiner and Holistic Medicine*' by Francis X. King p29).

There can be little doubt that Steiner's 'Occult Physiology' agreed with d'Alvevdre.

Alchemical and Hermetic Influences

Steiner's lectures and his references leave little doubt that he was very knowledgeable about alchemical and hermetic sources. The works of **Ficino** ('Corpus Hermeticum'), **Agrippa von Nettesheim** ('De Occulta Philosophia') and the teachings of **Paracelsus** must have been studied by him. The word 'astral' and the phrase 'astral body' was first used by Paracelsus. Steiner adopted a great deal of the chemical nomenclature of Paracelsus and the spagyrics physicians who followed him even though he redefined its content.

Rosicrucian Influences

In his '*Rosicrucianism and Modern Initiation*' Steiner demonstrated his familiarity with the thought of **Raimund of Sabunda** (b.1430), **Pico Mirandola** (1463 – 94) and **Agrippa of Nettesheim** (1486-1535). These thinkers and later members of the Order or Brotherhood of the Rosy Cross sought to heal the sick without charge. They valued anonymity and adhered to the teachings contained in three Manifestos. This invisible brotherhood included such notable persons and fellow travellers as **Johann Valentin Andreae** (1586-1654) and **Robert Fludd** (1574-1637). These and other Scholars such as **Dr John Dee**, the 'father' of Rosicrucianism, drew on many ancient traditions. They sought to establish relationships between the microcosm (man) and the macrocosm (cosmos).

Microcosm and Macrocosm

The Relationship of Man's Nature to Aspects of the Solar System.

It is readily conceded that the Sun has an effect on the plant growth on the Earth and that the Moon effects the tides of the Earth. Steiner went to great lengths to explain the hidden relations between the Earth and the 7 Spheres of the Solar System.

In his Agriculture Course Steiner claimed that the forces of plant and animal growth owe much to the silica and limestone of the earth as it is mediated through clay. Chemically, the process may be described as the interaction between SiO₂ (silicon dioxide), CaCO₃ (calcium carbonate) and Al₂O₃ (aluminium oxide). The limestone nature mediates the forces which emanate from the inner planets of Moon, Venus and Mercury. These forces effect the means of reproduction. The outer planets of Mars, Jupiter and Saturn have forces which effect the foodstuffs of animals and man through the siliceous nature of the earth.

In his 'Nine Lectures on Bees' Steiner observes that the Queen Bee's development lies completely within the rotational cycle of the Sun (21 days). The Worker Bee develops within the rotational cycle. Steiner claims that these **relationships** have a direct bearing on the sexuality and fecundity of the bee hive. Furthermore the hexagonal forces shaping the honey cells are forces which also affect the cells of human muscles and the flow of blood in the human. Whether these observations are artistic ones or scientific ones must be decided by the reader. They are nevertheless highly suggestive.

4.

Pharmacology

The Weleda Pharmacopoeia

An anthroposophical pharmacology developed from Steiner's medical indications and his association with Dr Ita Wegman. At Steiner's beckoning she qualified to become a Doctor in 1911. She subsequently practised medicine along the lines indicated by Steiner. In due course she established a Clinical – Therapeutical Institute at Arlesheim, near Dornach. A laboratory was established and was named 'Weleda' after the Celtic goddess of health. Dr Wegman and Rudolf Steiner collaborated in writing a book: 'Fundamentals of Therapy' which was completed just before Steiner's death in 1925.

Broad Indications Not Rigid Formulae

The preparation of medicaments is an important aspect of Anthroposophical medicine. In this regard Steiner usually only provided broad indications. Many anthroposophical remedies are administered in a 'dynamised' or 'potentized' form following successive succussions upon inert dilutants.

Potentised Remedies and Artistic Therapies

The remedies are based on utilising the life forces of plants to stimulate the life forces inherent in the human being so that a harmonising of the three body systems can be achieved. These potentised remedies are supplemented by a range of therapies. They include artistic therapies of painting, music and clay modelling, chiophonetics, rhythmical massage, oil dispersion and others.

SELECTED REFERENCES

Adams, George; *Potentization and the Peripheral Forces of Nature*; (see No. 4 above).

Bott, Victor; *Anthroposophical Medicine*; Rudolf Steiner Press.

Evans, Dr Michael and Iain Roger; *Anthroposophical Medicine Healing for Body, Soul and Spirit*; Thorsons, London, 1992.

King, Francis X., *Rudolf Steiner and Holistic Medicine*; Nicholas-Hays Inc; York Beach, Maine, 1991.

Steiner, Rudolf and Ita Wegman; *An Extension of the Art of Healing Through Spiritual Knowledge*; Trans. George Adams, London, 1967.

Steiner, Rudolf; *Curative Education: Twelve Lectures for Doctors and Curative Teachers*; Trans. Mary Adams; London, 1981.

Steiner, Rudolf; *Spiritual Science and Medicine*; London, 1975.

Steiner, Rudolf; *The Four Temperaments*; Anthroposophic Press; N.Y., 1976.

27. Architectural Achievements

The Two Goetheanums

It is difficult to comprehend how Steiner found time to be involved in architecture yet his achievements in this field alone would have satisfied the aspirations of a full-time professional over a life-time. Although his output may have been modest by world standards his complete involvement in the funding, modelling, design and building aspects more than compensated for the relatively small number of buildings he actually built.

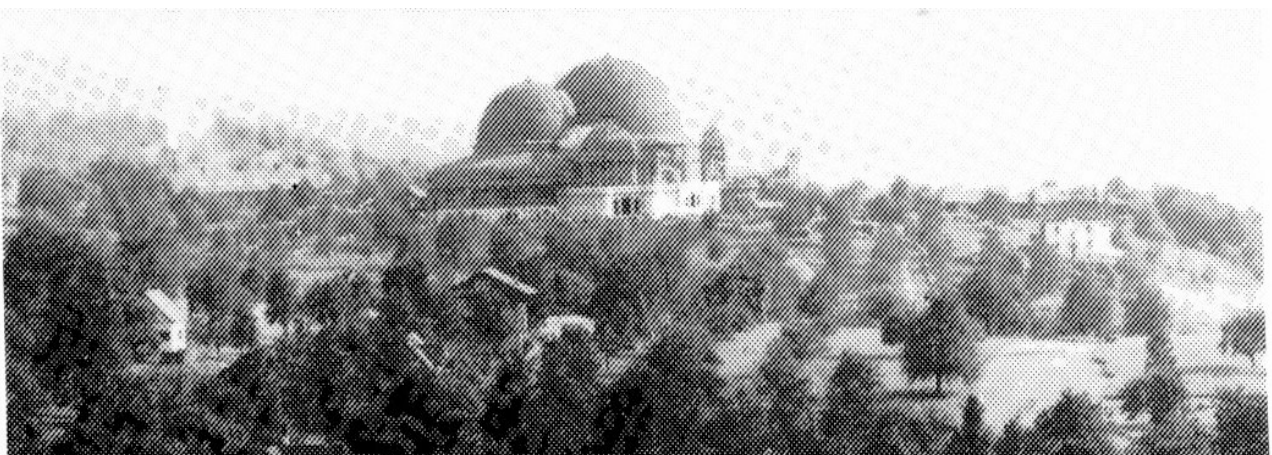
Kenneth Bayes in his book *Living Architecture* lists his main buildings:

First Goetheanum consisting of auditorium, stage and supporting rooms. Built in timber, with concrete podium. Started in 1913, occupied in 1920, burnt down on New Year's Eve, 1922/23.

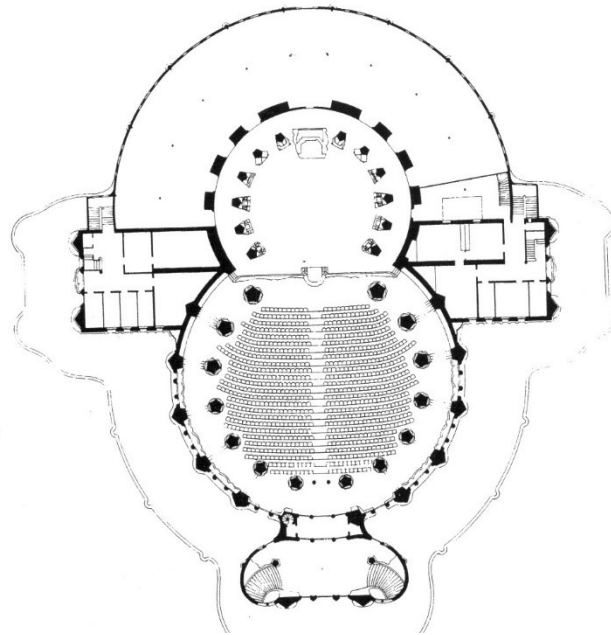
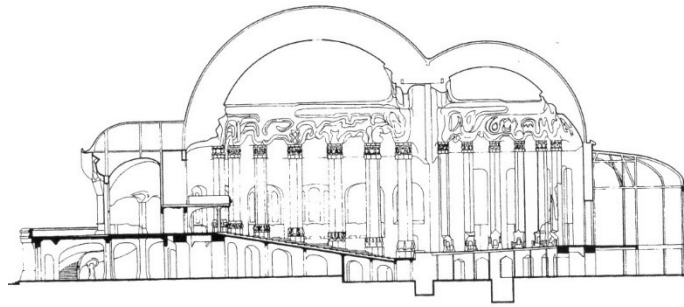
Second Goetheanum to replace the former building, but somewhat bigger and with more supporting spaces. Built in concrete. Started in 1924 and completed in stages after Steiner's death in 1925.

Small buildings around the Goetheanum – studios, houses and so on – 14 in total. Built between 1914 and 1924 (p. 51).

These buildings included a glass studio, the Boiler House, the Duldeck House. Steiner also had a designing influence on the Jaeger House, the Eurhythmeum, the Publishing House and the Schuurman House. He also produced models for a hostel and two other houses not on the Dornach hill.



The first Goetheanum on its hilltop at Dornach, Switzerland



First Goetheanum plan and section

Living Architecture, K Bayes

Common Elements of the two Goetheanums

Although the second Goetheanum appears to be a striking contrast in design to the first Goetheanum it manages to remain faithful to the three evolutionary accounts taught in Anthroposophy. The insides of both main auditoriums depict the Anthroposophical teachings of creation. Admittedly the second is not a copy of the first. Nevertheless it tells the story of cosmic evolution, of human evolution and of individual evolution in three different architectural expressions.

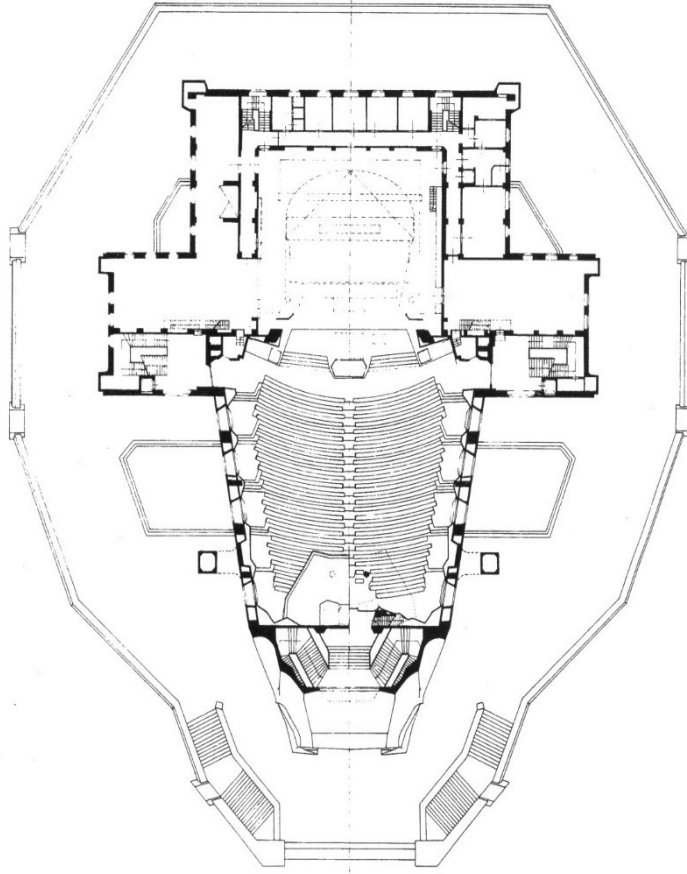
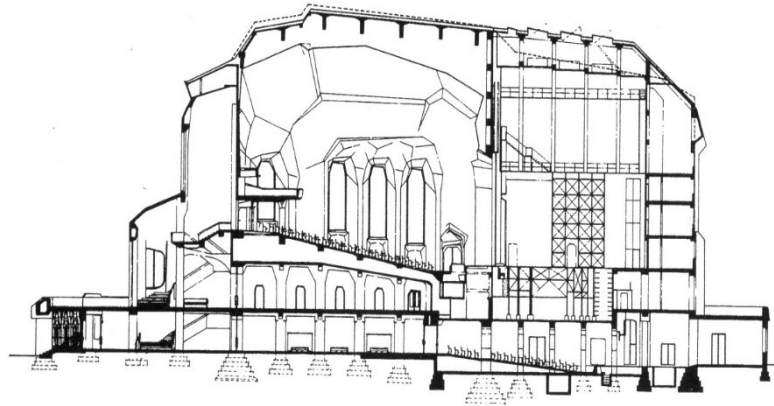
- **The seven pillars, capitals and architraves** symbolise seven stages of cosmic evolution as outlined by Steiner.
- **The painted ceiling** represents motifs of human evolution as understood by Anthroposophist's.
- **The stained glass windows** tell the story of the striving individual for knowledge and self-development. The red window is in the west, the green, blue, purple and rose windows are along the north and south walls of the auditorium. The principle of metamorphosis is applied to the treatment of these three architectural features.

Anthroposophy in Ideas and in Art

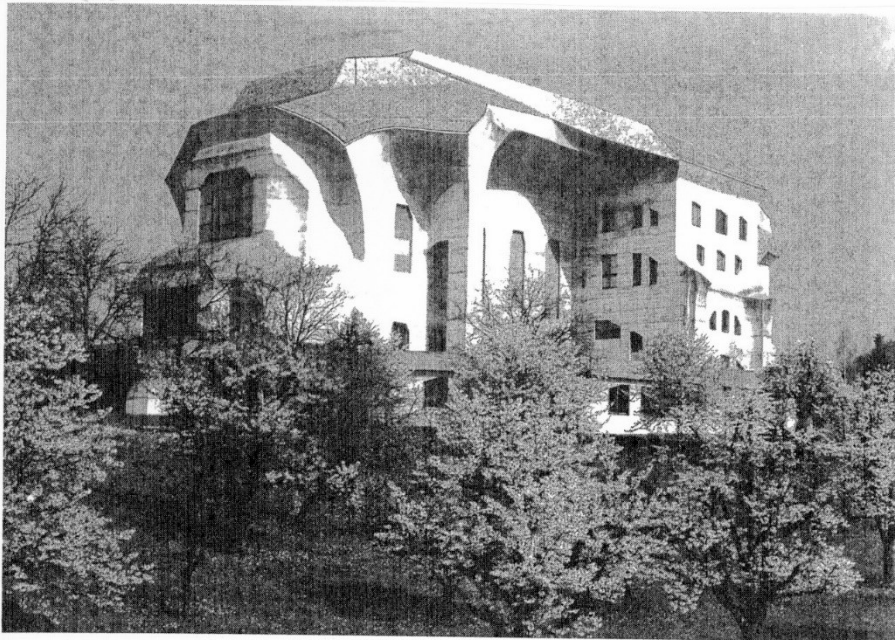
Rudolf Steiner sought to give artistic and architectural expression to the philosophical ideas he advocated in 'An Occult Science'. He said:

'That which wishes to live in the teaching of Anthroposophy is also expressed in the forms of the building. That which should sound through the Word in Dornach should be seen in the forms'

The Architectural Concept of the Goetheanum, 29 June 1921

The second Goetheanum - Dornach

Living Architecture – K. Bayes



Steiner wanted the visitor to experience the 'livingness' of the forms not simply decode them. Again,

'The style of the Goetheanum forms cannot therefore be a naturalistic imitation of some given outer object, animate or inanimate. The experience of the happenings of the spiritual world must lead the hand which sculpts or paints. The spiritual substance of the world must be poured into the lines of the form and must let itself be revealed in colour'.

(Ibid pps 24/25)

Building from the Interior Outwards

Steiner's actual involvement in architecture can be traced to his decorative staging of the Munich Congress Hall in 1907. He followed this up by modelling a building interior at Malsch in Germany. This large-scale model (3.5 x 2.5 metres) reproduced the Munich stage set. The capitals supported a triaxial ellipsoid-shaped dome. It also had an ambulatory behind the columns and an oval-shaped external wall. He reproduced this interior design, in full scale, for the Theosophical Meeting Hall, Stuttgart, in 1911. These early beginnings were forerunners to the design of the two Goetheanums. It is interesting to note that Steiner built from the interior outwards and made extensive use of moulds.

Non-Cartesian in Concept

Steiner's architecture strikes the viewer as non-rectilinear with roofing lines in flowing waves. It appears to be non-Cartesian with the three co-ordinates of rectilinear space suppressed. The second Goetheanum is almost non-Euclidean. Its roofing is an assemblage of tangential planar surfaces striking an invisible hemisphere. This unusual appearance contrasts markedly with the first Goetheanum whose helmeted roofing featured intersecting domes of unequal size. The sphere motif is openly declared in the first Goetheanum but it is suppressed in the second.

The Goetheanum as a Sculptured Building

The exterior form of the second Goetheanum is that of a non-rectilinear building. Its surfaces of planes were formed in moulded concrete and its layered roofing appears to cascade in dynamic free-fall. The assemblage of planar surfaces strike an invisible hemisphere where the sphere motif is suppressed.

Building with Form, Tone and Colour

One gets the impression that Steiner was more concerned with spatial configurations rather than with building materials, yet this is not actually true. He gave attention to both but endeavoured to create more plastic formations of space with traditional materials. The second Goetheanum was really an early essay in moulded concrete. Steiner's architecture is organic architecture without the decorative fantasy of Gaudi. Again, Steiner gave great attention to a building's acoustical properties. His two Goetheanums were 'Houses of the Word'. Steiner also built in colour. His stained-glass windows helped to bathe his two temples in coloured light. Thus it may be said that Steiner's building materials were form, tone and colour.

SELECTED REFERENCES

Bayes, Kenneth; *Living Architecture*; Floris Books, Edinburgh, 1994.

Biezantz, Hagen et al; *The Goetheanum: Rudolf Steiner's Architectural Impulse*; Trans. Jean Schmid; London, 1979.

Steiner, Rudolf; *Ways To A New Style in Architecture*; Anthroposophical Publishing Co; London, 1927.

28. The Application of Metamorphosis to Architectural Design in the Goetheanum

The Metamorphosis of Form in Time and in Space

The concept of metamorphosis is normally applied to plant life and insect development. Steiner, however, applied the concept widely into social theory and, surprisingly, to architecture. The plant begins as a seed which sends out roots to the earth and a stalk to the sun. It sprouts leaves then buds into blossom and fruit. This rhythmic process is also paralleled in the life cycle of the butterfly. It begins with the seed which transforms into a pupa. The pupa encases itself in a bud-like cocoon and finally emerges as a flower-like butterfly. These transformations occur in **time**. With Steiner's Goetheanum there is an attempt to give expression to transformations of form in **space**.

The Transmutation of Form

A building can gain organic unity through the repetition of a design element. Steiner's second Goetheanum design makes extensive use of the forms of a 'trapezium' and 'square' to 'tie' the **interior** design together.

The **plan** of the **stage** and the **seating arrangements** utilises the motifs of the square and the trapezium mentioned above. Although these basic forms are recognisable their variations in different combinations suggest movement in stages or metamorphosis.

The Seven Planetary Seals

Steiner first introduced an artistic representation of 5 planetary seals to a Theosophical congress in Munich in 1907 and the remaining 2 (Jupiter and Venus) were revealed in 1911. The seven apocalyptic seals are excellent examples of the sevenfold developmental process and the principles of metamorphosis. (See Over)

Sevenfoldness

Steiner followed ancient esoteric traditions by adopting the principles of nature in Sevenfolding. The sequence begins with simplicity of organization and at its mid-point (the 4th phase) achieves a unity of organization. In the final three phases the elements metamorphose to a new organization of its elements but at a higher level. The principle of seven-folding also contains a pairing of the phases: 1 with 7; 2 with 6 and 3 with 5. The 4th phase is mediatorial.

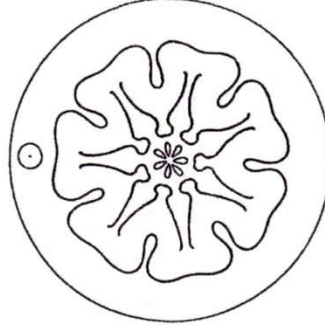
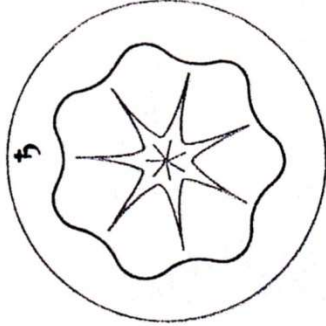
The Seven-Folding of Cosmic Evolution

Steiner's description of cosmic evolution outlined Seven phases of development for the Earth. Initially the Earth consisted of warmth and this condition condensed to air and then to a watery condition. This third phase hardened into solidity of the present mineral based earth condition. Three further phases are yet to emerge.

Phase	Name of Phase	Condition
1 st	Saturn	Warmth
2 nd	Sun	W/Air
3 rd	Moon	W/Air/Water
4 th	Mars/Mercury	Or Earth Condition
5 th	Jupiter	Future stage
6 th	Venus	Future stage
7 th	Vulcan	Future stage

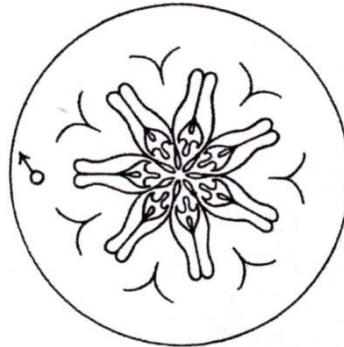
IMAGING METAMORPHOSIS IN THE SEVEN PHASES OF THE SEVEN SEALS

1 ST	2 nd	3 rd
-----------------	-----------------	-----------------



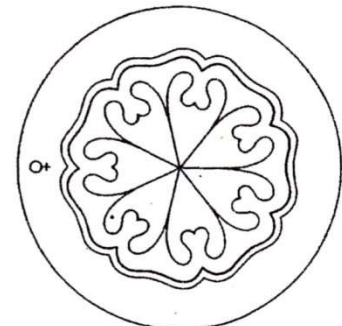
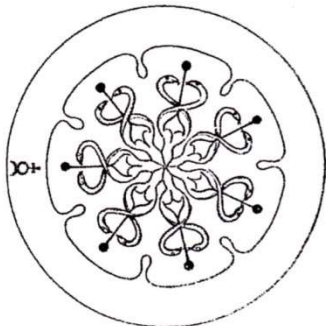
SATURN	SUN	MOON
--------	-----	------

4th



MARS

5 th	6 th	7 th
-----------------	-----------------	-----------------



MERCURY	JUPITER	VENUS
---------	---------	-------

Metamorphosis in the Seven Capitals of the Columns

The first Goetheanum powerfully features the capitals, architraves and plinths. The capitals were made from different types of wood: white beech, ash, cherry, oak, elm, maple and birch. Each type of wood corresponded to a planetary phase.

'The capitals of the seven auditorium columns were Steiner's most significant manifestations of metamorphosis. They were not just a series of variations on a theme. In each was seen the working of the threefold element to which we have already referred in various contexts - forces at work from below and from above with the balance between. The first 'Saturn' capital was a very simple form of this motif, but from west to east they became more complex, each emerging from the previous one, and finally becoming simpler again but at a deeper level 4 the rhythm of all true development. Metamorphosis, but of a somewhat different kind, was also seen in the column bases and in the architraves'. *Living Architecture* by Kenneth Bayes, pps. 72-73.



*Carvings of Architraves, Capitals and Plinths
of the first Goetheanum.*

The Refurbished Goetheanum

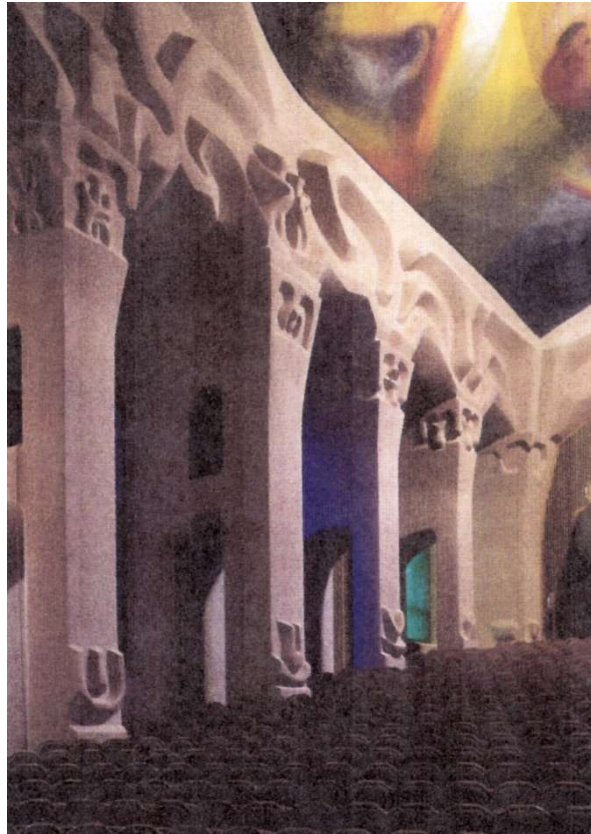
The refurbishment of the Great Hall and the remodelling of the ceiling and its walls challenged the Society towards the end of the 20th century. The artists, sculptors, architects and technicians skillfully captured the underlying principles and philosophy incorporated in the first and second Goetheanum. They did so not by imitation or repetition but by artistic transformation. Thus in the Great Hall one can look at the capitals and architraves and experience the metamorphosis of the forms.

According to Hans Hasler:

*'We might say in the depths of the lacuna which is a 'void'
between the pillars – in which something happens invisibly.'*

The Goetheanum (p34)

We might say that this something is the soul's participation in the creative process.



*Rendition of Architraves, Capitals and Plinths
in the Refurbished Second Goetheanum*

SELECTED REFERENCES

Bayes, Kenneth; *Living Architecture - Rudolf Steiner's Ideas in Practice*; Floris Book; 1994.

Hasler, Hans; *The Goetheanum - A Guided Tour Through the Building, its Surroundings and its History*; Verlag am Goetheanum; 2005.

The Great Hall of the Goetheanum; The Completion At The End of the Century;
Published May 1995 by the Art Section of the School of Spiritual Science as a magazine.

29. Astronomy – An Extension of Spirituality

Light as the Working of Will and Intelligence

Steiner introduces the student of Anthroposophy to a spiritualised Astronomy. He took the phrase 'heavenly bodies' very literally. For Steiner, Astronomy is not an extension of Physics or Geography but rather of Spirituality. What appears at a distance as **light** is in reality the working of will and intelligence. The heavenly bodies shine in the garments of spirit beings. Likewise, astronomical space is more appropriately understood as a milieu through which spiritual impulses reverberate. According to Steiner, everything on the earth is connected to the cosmos as a whole. The kingdoms of nature differ in the degree to which the different cosmic influences affect them. It is possible to differentiate five cosmic influences.

The Logos as the Union of Sun, Moon, Earth

*'This is the basis of the mysterious connection of the **spirit of man** with the **spirit of the universe** and with **the Logos** in whom **sun, moon and earth** are all contained. In this **Logos** we move and have our being.'*

The Festivals and their Meaning
Rudolf Steiner (p. 20)

Separation of the Sun and Moon from the Earth

*'The form and essential being of everything that lives upon our earth is determined by the fact that first the **sun** and then later the **moon** separated from the **earth**. From that time onwards, the **forces and influences** of these two heavenly bodies played down upon the earth from **outside**.*

(Ibid, p. 20)

Earth and Sun are parts of One Cosmos

According to Steiner, everything on the earth is connected to the cosmos as a whole. The kingdoms of nature differ in the degree to which the different cosmic influences affect them. It is possible to differentiate five cosmic influences.

Five Cosmic Spheres

1. The Sphere of the Fixed Stars

This outermost region influences the development of man's ego or I. As such its influence leads to the moral development of man.

2. The Sphere of the Zodiac or Animal Circle

This sphere of influence directly effects animals and the astral body of man. When the sun or moon passes before a zodiacal constellation its cosmic influence is, to some extent, blocked – as with an eclipse.

3. The Sphere of the Sun

• A Hollow Space

Steiner did not characterise the sun as a ball of gas or a body of combustion. Rather, he spoke of it as a suctional force drawing in etheric substance from the different parts of the universe. Steiner taught that the sun must be conceived of as a hollowing out of cosmic matter, a hollow space, a hollow sphere enveloped by matter but having negative matter in its interior. Steiner did not teach the Newtonian belief that the Earth travelled on an elliptical path around the sun. He taught that they both revolved around a neutral point between the centre of the sun and the centre of the Earth. Furthermore, the Earth followed the Sun in the same path and in the same direction. The Sun, as a gathering of suctional

forces, moved ahead and drew the Earth after it. This accounted for the effects of gravitation.

- **A Reflector of Light**

*'... physicists would be very astonished ... (to) discover that the sun is not a globe of gas **giving out light** – that is nonsense – but that it is a mere **reflector** which cannot (**itself**) radiate light ... Physically it appears as though the sun gives the planets light, but in reality it is the planets that radiate light to the sun and the sun is the reflector.'*

*The Sun Mystery in the
Course of Human History
R. Steiner Pub. Co., p. 18*

4. **The Sphere of the Planets**

- **A Living Astronomy**

The Sun and Moon are not merely distant objects to be explored by instruments such as telescopes and spectrometers. They work actively in the life of each person. Steiner agreed with Kepler and Swedenborg that together with the planets the sun and moon constituted an active influence on plant life, animal life and man. Steiner believed in a living astronomy and not a dead one. What takes place outwardly in the solar system is in man an inner process.

- **Inner and Outer Planets**

While the human being is emancipated from most of the effects of the planets, the plant life of the Earth is greatly subject to their influences. If it were not for the planets the forces of the Sun would take possession of the plants completely. Steiner, like the ancients, reckoned the moon among the planets. He adopted the following sequence: Moon, Mercury, Venus (inner planets), Mars, Jupiter, Saturn (outer planets).

The inner planets engendered the downward earth-directed tendency of the plant i.e. the root formation. The outer planets restrained the spiralling phyllotaxis of the plant and brought about the development of flowers and fruit.

5. **The Moon Sphere and its Effects**

The Moon worked so as to intensify the normal vitality of the Earth. When the Moon was united to the Earth, the Earth itself was far more alive and fertile. The effect of the Moon is to enhance the growth process to the point of reproduction.

Sun as Reflector of Light, Life and Love

*'... the wise men of ancient Persia regarded the sun as the reflector of **Light**. Then among the Egyptians and Chaldeans, the sun became the reflector of **Life** and among the Greeks, the reflector of **Love**.'*

SELECTED REFERENCES

Steiner, Rudolf; *Agriculture – An Introductory Reader* (Compiled with an introduction, commentary and notes by Richard Thornton Smith); Sophia Books; Rudolf Steiner Press; 2003.

Steiner, Rudolf; *The Festivals and their Meaning*; Rudolf Steiner Press; London; 2nd Ed; 1996.

Steiner, Rudolf; 18 Lectures on *The Relation of the Diverse Branches of Natural Science* to Natural Astronomy (1 January 1921-18 January 1921); Cyclostyled notes Anthroposophical Library, Sydney

30. Astronomy, Geometry and the Form of Man

Astronomical Descriptions Need to be Dynamical not Mechanical

Space is a 'livingness' for Steiner. He contrasted Newton's approach to gravity with that of Kepler. Newton spoke of the force of gravity where the forces of attraction decrease with the squares of the DISTANCE. On the other hand, Kepler preferred to express the forces of attraction decreasing with the squares of the periods of TIME. Both are correct Newton's formulation is abstract and mechanistic while Kepler's is reality-based and dynamical.

Elliptical Paths Demonstrate Mobility

For Kepler there is more 'livingness' in the path of an ELLIPSE than a CIRCLE because the radius/vector is continually altering. As the radius-vector of the planetary movements describes equal sectors in equal periods of time there is a transition from the **line** to the **surface** to the **plane**. (See Lecture 3 on Steiner's Course on Natural Science and Astronomy).

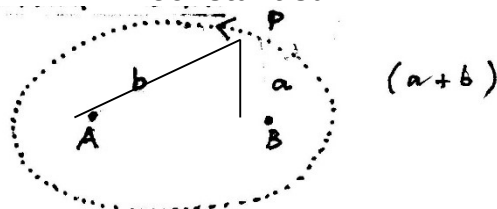
Planetary Orbits are Dynamical

For Steiner it was preferable to say that: 'planets move in paths which continually struggle against becoming a circle' rather than the dead-pan, and inanimate: 'planets describe ellipses'. The solar system should not be depicted or understood by diagrams which suggest rigidity or fixity of formal relationships. The solar system is one of dynamical and changing relationships. It has the characteristics of a moving picture not a photograph frozen in time.

Describing the Mobility of Elliptical Planes Mathematically

The Ellipse, the Hyperbola, the Curves of Cassini and the Circle may be described as having two focal points A and B, which generate two arms (a and b) which meet at a point P. Under these circumstances:

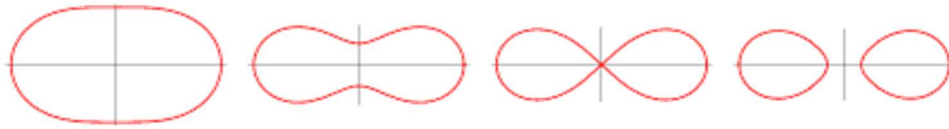
- The Ellipse is the locus of the **constant sum**



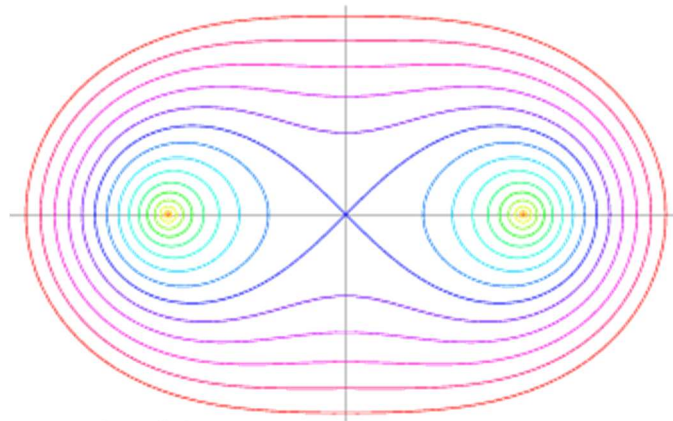
- The Hyperbola is the locus of the **constant difference**



- The Curves of Cassini are the locus of the **constant product** and show considerable variability in formation as per the Wikipedia illustration:



The Cassini ovals are a family of quartic curves, also called Cassini ellipses, described by a point such that the product of its distances from two fixed points a distance $2a$ apart is a constant b^2 . The shape of the curve depends on b/a . If $a < b$, the curve is a single loop with an oval (left figure above) or dog bone (second figure) shape. The case $a = b$ produces a lemniscate (third figure). If $a > b$, then the curve consists of two loops (right figure). Cassini ovals are anallagmatic curves.



A series of ovals for values of $b/a = 0.1$ to 1.5 are illustrated above.

The curve was first investigated by Cassini in 1680 when he was studying the relative motions of the Earth and the Sun. Cassini believed that the Sun travelled around the Earth on one of these ovals, with the Earth at one focus of the oval.

- The Circle is the locus of the **constant quotient**
The circle becomes the ordinate axis when $a = b$, i.e. when the quotient $\frac{a}{b} = 1$.

In this way the circle gradually changes into the ordinate axis, into a straight line!

Steiner concludes his Lecture 9 by suggesting it is possible to think of a circle which is curved toward the outside which throws one out of space. In passing from the curve of CONSTANT PRODUCT to the curve of CONSTANT QUOTIENT we are only just able to indicate the thought spatially. We are forced by astronomy to the very limits of mathematising.

Lemniscate of Bernoulli

From Wikipedia, the free encyclopedia

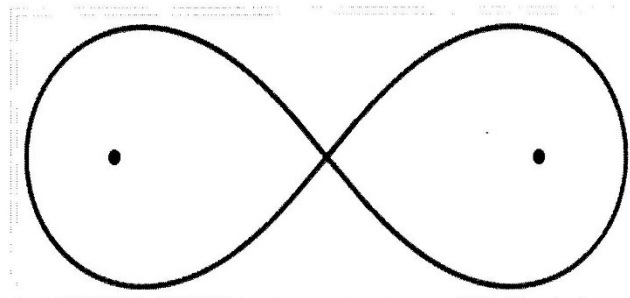
In geometry, the **lemniscate of Bernoulli** is an plane curve defined from two given points F_1 and F_2 , known as **foci**, at distance $2a$ from each other as the locus of points P so that $PF_1 \cdot PF_2 = a^2$. The curve has a shape similar to the numeral 8 and to the ∞ symbol. Its name is from *lemniscus*, which is Latin for "pendant ribbon". It is a special case of the Cassini oval and is a rational algebraic curve of degree 4.

Its Cartesian equation is (up to translation and rotation):

$$(x^2 + y^2)^2 = 2a^2(x^2 - y^2).$$

The lemniscate was first described in 1694 by Jakob Bernoulli as a modification of an ellipse, which is the locus of points for which the sum of the distances to each of two fixed *focal points* is a constant. A Cassini oval, by contrast, is the locus of points for which the *product* of these distances is constant. In the case where the curve passes through the point midway between the foci, the oval is a lemniscate of Bernoulli.

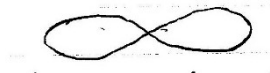
This lemniscate can be obtained as the inverse transform of a hyperbola, with the inversion circle centered at the center of the hyperbola (bisector of its two foci).



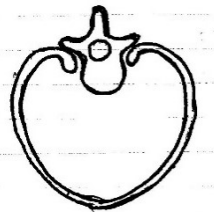
A lemniscate of Bernoulli

Anatomical and Circulatory Lemniscates in Man (After L.F.C. Mees)

The elements of the lemniscate



may be taken apart or metamorphosed into various shapes. One such shape

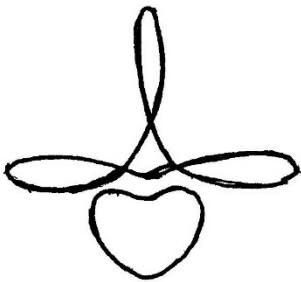


is that above, viz. the Vertebra – with ribs shape seen from above.

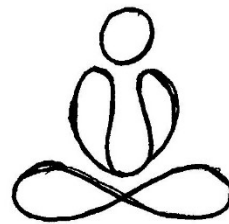
SECRETS OF THE SKELETON - FORM IN METAMORPHOSES
AFTER L.F.C. MEES



METAMORPHOSED LEMNISCATE



STYLISTED VERTEBRA



STYLISTED BUDDHA

SEE P.85

The Fluctuating Orbit of Mars

Rudolf Hauschka describes his belief that the orbit of Mars (♂) about the sun (☉) bears a fluctuating relationship to the Earth (♀) which is 'a cosmic counterpart of the human breathing process! His Fig. 3 illustrated his argument:

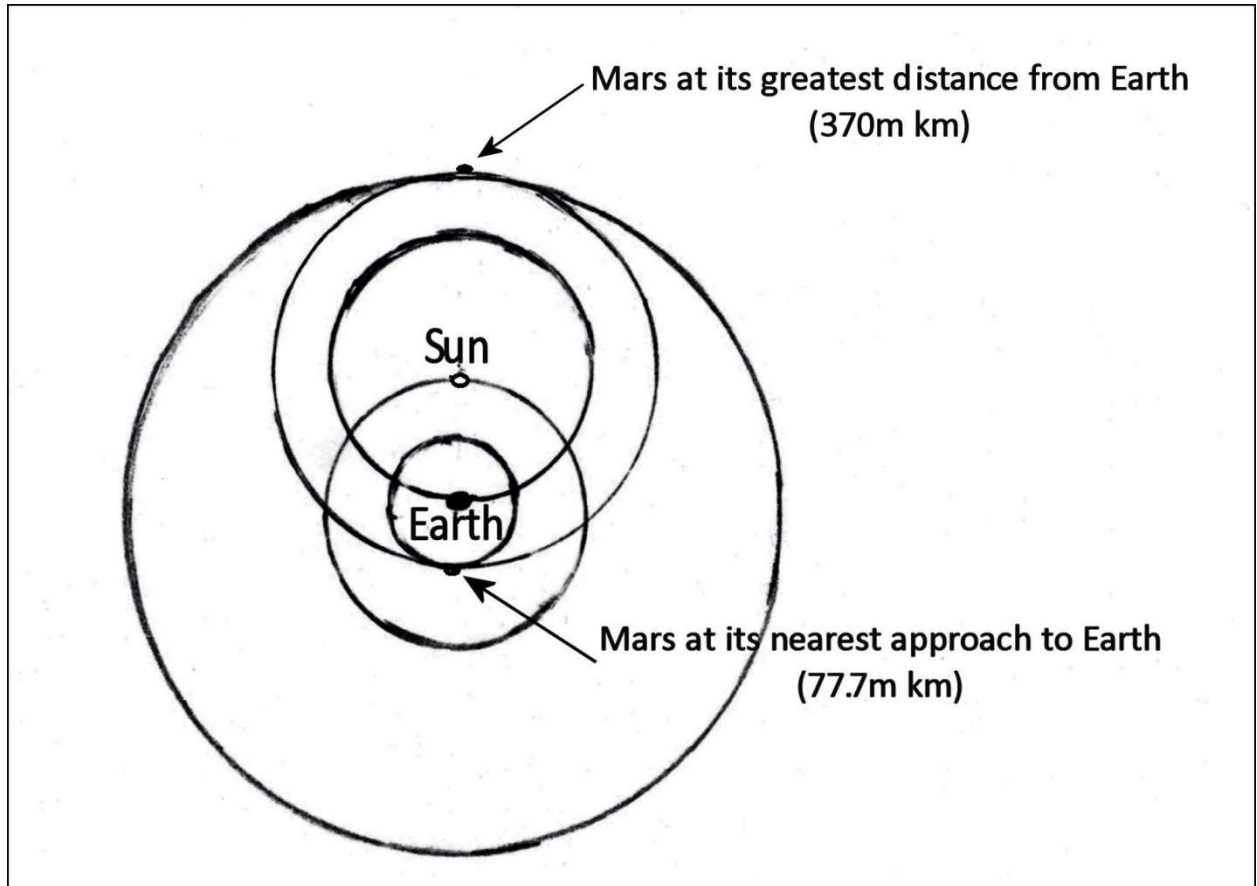


Figure 30.
Expansion and Contraction (breathing) of the Mars-sphere.
(*The Nature of Substance* by Rudolf Hauschka – London
Vincent Stuart Ltd, 1966.)

'If we observe the breathing in our lungs, we can hardly avoid the impression that the orbit of Mars, as it rhythmically nears the earth and then moves farther away, is a cosmic counterpart to the human breathing process.' (Ibid, p. 183).

SELECTED REFERENCES

- Steiner, Rudolf; 18 Lectures on *The Relation of the Diverse Branches of Natural Science to Astronomy* (1 January 1921-18 January 1921); Cyclostyled notes held by Anthroposophical Library, Sydney
- Hauschka, Rudolf; *The Nature of Substance*; Vincent Stuart; London, 1966.
- Mees, L.F.C.; *Secrets of the Skeleton – Form in Metamorphosis*; Steiner Books; Anthroposophic Press; 1984.
- Thomas, Nicholas (See Wikipedia)

31. Reincarnation

Reincarnation Imaged in Nature

Steiner did not regard Reincarnation as a doctrine that might be true. He embraced it with the certainty that it was a natural law. He went even further. He sought to enunciate the laws and processes upon which repeated earth-lives took place. He took as his starting point the biological reality of metamorphosis in the plant and insect realm. He then saw how Goethe had begun the task of describing the application of the principles of metamorphosis to the animal kingdom. He then went a stage further than Goethe. Steiner described in great detail the processes of transformation that the spiritual – psychic entelechy has to undergo when a person transits from one life to the next. Reincarnation was not just the operation of Karmic law in repeated earth lives. Its operation was manifested in the development of a unique biography. This biography was the fulfilment of an individual's destiny.

1

The Kingdoms of Nature and their Bodies

The emergence of each kingdom of nature involves the preservation of the 'livingness' of the original form (and the sloughing - off of the dross).

The Relationship of Mans 'Bodies' to the Kingdom of Nature

World	Mineral	Plant	Animal	Man
Higher Spiritual	Ego			
Lower Spiritual	Astral Body	Ego		
Astral	Etheric Body	Astral	Ego	
Physical	Physical Body	Etheric Body Physical Body	Astral Body Etheric Body Physical Body	Ego Astral Body Etheric Body Physical Body

Man and Animal

'Man has the three bodies of the animals and a controlling 'ego' as well. This ego or self-hood plays a key part in the progressive development of the soul life and spirit life of the individual. This development constitutes the unique biography of the individual. While the animals participate in a 'group soul' the human being has an 'individual soul'. While the animal lives in his environment man can control his environment to suit his individuality. Animals have repeated earth lives through bodily reproduction. Man has repeated earth lives through soul reproduction. Animals must obey natural law. Man is free to obey or disobey natural law'.

2

The Re-incarnation of Man's Soul Life

Guiding Principle – Preservation/Sloughing

Steiner begins his thinking about human reincarnation by firstly enunciating a spiritual geology. This enables him to extract the guiding process of **preservation and sloughing – off**. The ancestral form of all the kingdoms of nature is archetypal man. This spiritual blue-print is cosmic man. Cosmic man is progressively revealing his form by shedding unnecessary elements of the mineral, plant and animal Kingdoms. The next evolution stage of man is the transformation of man's soul life. This is done through a process of re-incarnation.

Three-folding in Man

Steiner based his teaching on the nature of man. This teaching described both man and nature as having a physical, an etheric and astral 'body' (or soma, psyche and pneuma).

Three-folding the Physical Body, the Soul Body and the Astral Body

Steiner also taught that each body of man had three gradations:

English	Greek	(i)	(ii)	(iii)
physical	soma	physical	etheric	astral
soul	psyche	feeling	thinking	consciousness
spirit	pneuma	manas	budhi	atma

Soul Emergence

The soul has three stages of development. The astral body is now worked on by the ego and the sentient or feeling soul is born (21-28). Similarly the outer sheath of the etheric body gives birth to the intellectual or thinking soul (28-35). Lastly, the outer sheath of the physical body is worked on by the ego to produce the consciousness soul (35-42). Man is aware of his feelings and of his thinking and becomes aware of his self. Man stands alone and in freedom.

Spirit Emergence

The Spirit of Man has Three stages of development :-
 Spirit Self (42-49) – transmuted Astral Body or Manas
 Life Spirit (49-52) – transmuted Etheric Body or Budhi
 Spirit Body (56-63) – transmuted Physical Body or Atma

Perfecting the Total Being of Man – Causal Body

It is not to be expected that a person would achieve Atma in one lifetime. The perfection of the spirit may take many lifetimes in the physical world, the soul world and the spirit world. The human entity that develops is sometimes known as a causal body which is everlasting and the product of many incarnations. In every 2200 years approximately a human being incarnates twice – once as male and once as female.

Sleep and Waking an Image of Death and Reincarnation

In his waking state man has a physical body, an etheric body, an astral body and a conscious ego. In sleep the astral body and the ego glide away.

Death

'Death is truly called sleep's elder brother'. At death the etheric, astral and ego depart leaving the physical body to decay. This composite entity passes through three general experiences:

1st Phase in the Physical World

As the Etheric Body departs from the Physical Body the memory bank of the Etheric Body is released. It takes approximately three days for the Etheric body to dissolve into the world ether. During this time the individual experiences his entire past life in a **panoramic vision**. This experience is imprinted in the Astral Body.

2nd Phase in the Soul World of Kamaloca

While the first phase occupies the same time as a person can stay awake (3 days) the second phase is as long as the person slept in the physical life (say

1/3 of 72 years). During this period the individual undergoes purification and his dependency on desires. He experiences the pain he inflicted on others and the joy he gave to others. What was hidden is now revealed. He meets sympathetic and antipathetic beings as he progresses through seven graduated stages and is re-educated.

Seven Stages of Kamaloca

1. Glowing Desire
2. Fluid Excitability
3. Wishes or Prejudices
4. Pleasure/Displeasure
5. Psychic Light
6. Active Soul Power
7. Soul Life Proper

At the end of the Kamaloca phase the Spirit casts off an Astral Corpse.

3rd Phase in the Spirit World of Devachan

The individuality begins to work on the pattern of his new physical body with the assistance of the Hierarchies. **The previous physical body provides the forces for the new head in the next incarnation.** The individuality decides on his next parents, where he will grow up and the conditions that will assist in the individual spiritual growth. The soul/spirit being then travels into space and comes under the influence of spiritual beings, the planets, and the stars which assist in the creation of the next physical body.

In Devachan the being negotiates seven regions:-

Spirit World or Devachan

1. Continental Region
2. Fluid Element
3. Archetypes of Soul World
4. Archetypes of Human Creation
5. Possibilities of True Self Revealed
6. Alignment with Being of the World
7. The Boundary of the Three Worlds

The Re educated Etheric and Astral United with a New Physical

Travelling past the Sun and the Stars the Astral Body is formed. The new Etheric Body is dependent on Moon forces. Man's new Physical sheath has to receive the new Etheric and Astral forces. Immediately before incarnation the individuality experiences a preview of earthly life in general outline: During the embryonic period consciousness is dimmed to a dreaming level. The new incarnation can then take place.

Selected References

Steiner, Rudolf; *An Outline of Occult Science*, (Authorised Translation from the 4th Edition), Anthroposophic Press New York; 1922.

Wilkinson, Roy; Rudolf Steiner – *Aspects of his spiritual world-view, Anthroposophy Vol 3*; Temple Lodge, London; 1994.

Collison, H; *Investigations in Occultism*; Rudolf Steiner Publishing Co; Anthroposophic Press; 1920.

Shepard, A.P.; *A Scientist of the Invisible*; Hodder and Stoughton; 1954. Esp. Ch XI,
The Evolution of the Individual - The Process of Reincarnation.

Wachsmuth, Guenther; *Reincarnation as a Phenomenon of Metamorphosis*; Trans. Olin
Wannamaker, N.Y; 1937.

Poppelbaum, Hermann; *The Battle for a New Consciousness* (Esp. Ch. 14
Metamorphosis and Reincarnation pp 140-155); Mercury Press, 1993

32. Isis Mary Sophia

Sophia

Steiner as creator of Anthroposophy had much to say about Sophia. The very name of the movement he developed combined two Greek words **Anthropos** (human being) and **Sophia** (the feminine Divine Wisdom). While the name Anthroposophy is generally understood as the 'wisdom of man' it also has an esoteric or hidden meaning. This enlarges the scope of Anthroposophy. It includes and embraces wisdom in all its manifestations i.e. earthly, cosmic, divine and heavenly. It also acknowledges the centrality of the Divine Feminine in the teachings of Anthroposophy. For Steiner, Sophia was the hidden reality of a new Isis myth.

Manifestations of the Feminine Divine

The patriarchal orientation of the Semitic religions has obscured the very widespread reverence given to feminine deities. These goddesses may be Great Mothers, fertility goddesses, goddesses of love, goddesses of compassion, and goddesses of the arts and so on. In Hinduism they are 'partners' to the major deities and on co-equal terms. We may agree with Schwaller de Lubicz: 'There is only a single femininity, but it acts differently in different environments. She is known by many names: - Inanna in Sumeria; Astarte among the Hittites; Ishtar in Babylon; Isis, Moat, Hathor, Nut and Neith in Egypt'. In Greece she may be Demeter, Persephone, Artemis, Athena or Hecate. In the Roman world she may be a Venus, Diana, Juno, Artemis, Hera and Athena respectively. In India favoured Goddesses include Sarasvati, Lakshmi and Parvati. In East Asian countries Tin Hau is recognised as the Queen of Heaven and shares her beneficence with Kuan Yin. Kuan Yin was originally an Indian princess who elected to be a Bodhisattva. She forfeited Nirvana in order to ease the suffering of others. For Steiner, Sophia is a being. 'A being is consciousness, a mode of cognition'. The Sophia consciousness is expressed in the adoration given to Mary by the Catholic community. Thus Isis, Mary and Sophia are the one being under different names.

The Virgin Sophia as The Holy Spirit

In a lecture on 20 November 1907 Rudolf Steiner explained the correspondence of the three Mary's to human nature:-

'Mary' (Magdalene) – Sentient Body

'Mary' (wife of Cleophas) – Intellectual Soul

'Mary' (mother of Jesus) – Spirit Self (or Virgin Sophia)

He also identified the Spirit Self with the Holy Spirit. The Life Spirit with The Son and the Spirit Human with the Father.

The Spirit Self is a purified astral body and in esoteric Christianity it is known as the pure chaste Virgin.

The Pleroma and Kenoma

The Pleroma may be defined as the ground of being. It is at once empty and perfectly full. Emptiness is **Kenoma** where fullness is **Pleroma**. *'The cosmos of appearances is called the 'emptiness' although it is in the image of the archetypal world it is deficient or incomplete. The 'pleroma' belongs to the invisible, unseen world and is the 'fullness of reality.'*

Creatura and Syzygy

The pleroma and Kenoma are the equivalent to the Platonic realms of 'being' and 'becoming'. The one is apprehensible by intelligence, the other by opinion. Distinction appears in the **Creatura**. The creature or world of creature things emerges from the four fundamental **Syzygies**. These syzygies are polarities which cancel their effects while in the pleroma but result in distinct qualities when they manifest in the creatura.

Four Fundamental Syzygies

In Ptolemy's blue-print of reality there are eight principal **aeons** in the pleroma. These give rise to two minor subsets of 10 aeons and 12 aeons making 30 in all.

Eight Aeons or	
Four Fundamental Syzygies	
Deep -	Silence
Consciousness -	Truth
Logos -	Life
Human -	Community

The creatura is a world of constant change. Once the pairs of opposites balance themselves they fall back into the pleroma for rebirth again.

The Myth of Sophia

The last and youngest of the 30 aeons is Sophia (or Wisdom). This Goddess has two aspects viz 'Higher Sophia' and 'Lower Sophia'. *The myth of Sophia 'tells the story of the fall of the psyche (soul) into incarnation and her redemption by her lover-brother, representing consciousness.'*

Sophia's 'fall' is caused by her desire to comprehend the mind of the Father. In 'falling' she loses the embrace of her consort and falls victim to suffering. The Myth of Sophia was adopted by Gnostic Christians to form part of the Jesus story. Sophia figures in the Gospels in the personage of the two Mary's: The Virgin Mother and Mary Magdalene. Steiner adds Mary the Wife of Cleopas to these two. He identifies them as aspects of man's spiritual nature. In effect, the Ptolemaic myth of Sophia is an allegorical expression of the soul's level of development.

Sophia's Attempts to Overcome Her Falleness

The Myth of Sophia is a description of man's 'fallen' state from spirit into matter. In this fallen state man longs to return to the spiritual state. Unfortunately Sophia falls into Suffering which is separation from the Father. With suffering comes Limit. Sophia undertakes three initiations: viz **Psychic Initiation** during which she experiences **Metanoia** – a change of heart; **Pneumatic Initiation** and finally **The Mystical Marriage**.

The Pre-Figurement of the Lost Goddess Prior to Christianity.

The Myth of the lost Goddess is a synthesis of pre-existing Jewish and Pagan myths.

Egyptian – Isis as Madonna

Rudolf Steiner describes Isis with the Horus child at her breast as an image of the Madonna (Isis and Madonna Berlin, April 29, 1909) Cited by Christopher Bamford in '*Isis, Mary Sophia*' (p.95)

Jewish – Eve as Achamoth

Freke and Gandy in '*Jesus and the Goddess*' (p.99) refer to 'the resonance between the myth of Sophia and the Genesis myth.' Adam represents consciousness and Eve represents psyche. Adam and Eve were once a unity but became separated. (Note 'Psyche' is 'Soul' and is an alternate name for 'Sophia'. Sophia is also referred to as 'Zoe', meaning life, or the Hebrew 'Achamoth').

Grecian – Helen of Troy as Sophia

Homer's initiatory tales **The Iliad** and **The Odessey** tell the story of the abduction and rescue of **Helen**. According to the Pythagoreans, Helen is a symbol of the psyche and her abduction represents the fall of the psyche into incarnation. Euripides avers that it is only Helen's **eidolon**, or lower self, which has been captured by the Trojans. The real Helen, or higher self, was safely in Egypt. Perhaps Goethe knew about this esoteric understanding of Helen of Troy when he described the last demand of Faustus to Mephistopheles to allow him to make love to Helen of Troy. Similarly **Simon Magus** described himself as a Christ who has come to rescue the lost Goddess in the form of his spiritual partner –'Helen'.

Grecian – Eros and Psyche

The myth of Eros and Psyche is similar to the myth of Zeus and Aphrodite. Psyche has fallen asleep in hades and is rescued from the world of the spiritually dead by Eros who is God's first born Son and the 'Revealer of Light' representing the one consciousness in all. (Freke and Gandy '*Jesus and the Goddess*' p.92).

Grecian – Demeter and Persephone

The myth of the Mother God Demeter and her daughter Persephone was taught in the Mysteries of Eleusis. The myth is, according to Freke and Gandy, an allegory of the descent of the psyche into incarnation; 'Persephone' comes from 'Sophia' and means 'wise'. She was also known as Kore (Daughter or Girl) and she represented the fallen psyche. 'Demeter' means 'Mother'. She is the 'higher' or 'pure' psyche.

Hidden Christian References to the Myth of Sophia in the Gospels and Open References in Gnostic Gospels.

Freke and Gandy mention a number of veiled references to the Myth of the Lost Goddess in the Gospels. To identify these it is necessary to have familiarity with the detail of the myth. Sophia has two natures. In her Higher nature she is the Virgin Sophia. In her incarnation she assumes her Lower Nature. The Lower Sophia brings about the soul or 'psyche' of the world. This soul world was created by her son the Demiurge.

The Seven Planetary Heavens

The Demiurge is the Creator of the seven planetary heavens and its progressive materiality. In the Gnostic mythical schema, the cosmos has seven levels (see below). The Gnostic journey is conceived as ascending a sevenfold ladder to the **ogdoad** or 'eighth heaven'. The portrayal of Jesus expelling 'seven demons' from Mary Magdalene (Mk16:19) is a veiled reference to spiritual progression of the Lower Sophia. The 'Dance of the Seven Veils' by Salome is, likewise, another hidden reference. Sophia's psychic fall, her redemption by her lover-brother (consciousness) and her marriage represent the **hylic, psychic and pneumatic** states of the initiate. These three states have any number of gospel allusions in the Jesus Myth and in the Gnostic Gospels excluded from the canon. The Gospel According to Mary (Gnostic) openly attributes the secret teachings of the inner mysteries to Mary Magdalene (9:10).

Steiner's Adoption of the Seven Planetary Heavens

Steiner's description of the development of the macrocosmic environment, in which the microcosm (man) is a product, identifies seven planetary phases or embodiments: Saturn, Sun, Moon, Earth, Jupiter, Venus and Vulcan. The microcosm also has a

sevenfold development (although this is usually explained as nine-fold). Steiner taught that the esoteric schools of Dionysius identified Mary Magdalene, Mary Cleophas and Mary the Mother of Jesus as code names for three of the seven stages of human/spiritual development. He went further and disclosed the code names of two other correspondences – The Father and The Son.

The Seven Phases of Human Development and their Gospel Counterparts

Father	7. Spirit Human	Transformed physical body
Son	6. Life Spirit	Transformed etheric body
Holy Spirit	5. Spirit Self (purified consciousness soul)	Virgin Sophia
	4. Intellectual (mind soul, astral soul)	Mary wife of Cleophas
	3. Sentient soul, sentient body	Mary Magdalene
	2. Etheric body	
	1. Physical Body	

The mother of the spiritualized individual is the purified consciousness soul or the Virgin Sophia.
(See *Isis, Mary and Sophia* p58.)

Selected References

- Steiner, Rudolf; *Isis Mary Sophia – Her Mission and Ours*; Selected Lectures and writings with an Introduction by Christopher Bamford; Steiner Books: 2003
- Freke, Timothy and Gandy, Peter; *Jesus and the Goddess – The Secret Teachings of the Original Christians*; Thorsons; 2001
- Freke, Timothy and Gandy, Peter; *The Jesus Mysteries – Was the original Jesus a Pagan God?* Thorsons:1999
- Ahern, Geoffrey; *Sun at Midnight – The Rudolf Steiner Movement and Gnosis in the West*; James Clarke and Co: 2009

33. The Anthroposophical School of Spiritual Science and its Mathematical and Astronomical Section.

'The knowledge of the Universe rises upward through three stages: from Astronomy to Astrology and from Astrology to Astrosophy.'

Elizabeth Vreede

1.

The Goetheanum as an International Centre of the Anthroposophical Society

The School of Spiritual Science and its Eleven Sections

The Goetheanum at Dornach Switzerland honours Goethe in its name and it is the International Centre of the Anthroposophical Society. The building is the Society's home for its School of Spiritual Science. This school is sub-divided into eleven sections:

- The General Anthroposophical Section
- Mathematics and Astronomy
- Medical
- Natural Science
- Agriculture
- Pedagogy
- Art
- Spiritual Striving for Youth
- The Arts of Eurythmy, Drama and Music
- The Literacy Arts and Humanities
- Social Sciences

Research, Publication, Dissemination and Sharing

In 2005 the various Sections of the School of Spiritual Science organised and ran some 160 courses and conferences during the year. Its budget comprised some 22 million Swiss Francs.

The Mathematical and Astronomical Section of the School of Spiritual Science

In its early days the Mathematical and Astronomical Section of the School of Spiritual Science was led by the brilliant but controversial Dr Elizabeth Vreede (1879 – 1943). She enjoyed the privilege of living in the same house as Rudolf Steiner and Marie Steiner for several years. When Rudolf Steiner assumed control of the General Anthroposophical Society he had a committee to assist him. Dr Vreede was a member of this Committee. It comprised Albert Steffen, Marie Steiner, Ita Wegman, Elizabeth Vreede and Gunther Wachsmuth. There can be little doubt that Rudolf Steiner held Dr Vreede in high regard while he was alive. After his death her standing in the Anthroposophical Society declined. Rudolf Steiner once indicated:-

'that Elizabeth Vreede had incarnated too early on account of Anthroposophy'.

This statement suggested that her thoughts were probably too advanced for even most members of the General Society. Dr Vreede was later castigated for moving the Society away from the mainstream of Anthroposophical teaching.

Modern Scientific Assumptions about Reality and Steinerian Assumptions

Introduction to the New Astrology

Modern scientists only recognise matter as constituting reality. Matter consists of elements. Thus when they look into the heavens they only seek to identify those elements which have been found on earth. However Steiner starts from an entirely different premise. He recognises the earth as a being consisting of three interacting bodies viz a physical body, an ethic body and an astral body. So when Steiner looks to the heavens he also seeks to identify the heavenly counter-parts of the three bodies he identifies on earth plus the ego of man.

Steiner believed in a living universe. He contrasted his universe with the barrenness of the modern mathematical – mechanical model of present day astronomy. Modern astronomers attempt to picture the universe as if man were an 'outside on-looker'. They do not describe a relationship of man to the cosmos – except perhaps that man is made of star dust'. Steiner pictured man as a metamorphosed copy of the cosmos. Conversely, the cosmos contained the same elements as man.

Grandeur, Reverence and Awe

Steiner's approach to astronomy has its starting point in the primal feeling of **wonder**.

'When we 'raise our eyes to the starry heavens we will be filled with a feeling of reverence and we will know that this is the memory of the human being's eternal home.'

(Life Between Death and Rebirth, Nov 18, 1912)

Also

*'The feeling awakens: Before you come down to earth...you yourself were in those stars and out of the stars come the highest forces that are in you. **Your moral law was imparted to you when you were, dwelling in the world of stars.**'*

Astronomical Science does not attempt to seek an explanation for the experience of wonder and awe experienced by the humblest stargazer. Anthroposophical Science, on the other hand, seeks to provide a spiritual basis for the place man occupies in his relation to the cosmos and its constituent parts.

A Renewal of the Egyptian – Babylonian Astrology

Steiner taught that man in the present era must search among the stars in a way that differs from the old ways. Although the Egyptian-Babylonian period was now recurring the stellar script had to be read in a different way. A new astrology had to be developed.

Maya of the Past Deeds of the Hierarchies

Dr Vreede explained the meaning of Steiner's Helsingfors 'Lecture Series: **The Spiritual Beings in the Heavenly Bodies and in the Kingdoms of Nature**' (1912).

She explains that:

'The world of physical Heavenly Bodies represents the remains of the past deeds of the successive Beings of the Hierarchies which only in their consequences reach into the Present.'

Correspondences between Earthly and Cosmic Natures

Man Writ Large in the Solar System

- **The Planets** represent, so to say, the **physical body** of the solar system.
- **The Sun** represents the **etheric body of the planets**.
- **The Spirits of the Revolutions in Time** (the descendants of the highest hierarchy) represent the **astral body of the Earth and the solar system**.
Comets cleanse the nature spirits and other laggard spirits of their evil intents.
- **The Christ** is the **Ego** of the Earth.

Summary

Spirit Being	Solar System Manifestation	Bodies of Man
Planetary Spirit	Sense of Nature	Ego
Spirits of Revolution in Time	Laws of Nature	Astral Body
Realm of the Nature Spirits	Forces of Nature	Etheric Body
World of the Senses	Perceptions	Physical Body

The Nine Stages beyond Mankind

In summarising the nine stages beyond humanity Dr Vreede relates them to the five 'planetary' stages of earth's evolution.

No.	Spiritual Beings	Planetary Stage
1	Seraphim	Comets
2	Cherubim	
3	Thrones	Fixed Stars
4	Spirits of Wisdom	
5	Spirits of Movement	Planets
6	Spirits of Form	
7	Archai	Moon
8	Archangels	
9	Angels	Earth
10	Humanity	

Dr Vreede describes the **Comets** as 'the rebels against the general order of the Cosmos'. She characterises them as the polar opposite to the **Moons** of the various planets. Whereas the moons are veritable '**corpses**' the comets are '**incessant cleansers**' of the astral atmosphere of the solar system.

*Astronomy and Astrology were once united in the ancient star wisdom. The new Astro – Sophia or **Astrosophy** seeks to find a new expression of man's relationship to the spirit – ridden heavens.*

Earthly Bodies and their Cosmic Counter-parts

In 1924 Rudolf Steiner delivered 49 lectures on Karma which were subsequently reproduced in four volumes. During this period, just before the Whitsun festival, Steiner delivered a lecture which outlined the relationship between man's bodies and their cosmic counterparts.

- Out in the cosmos there is no **physical** nature
- The **cosmic etheric** is the lowest realm 'When we see the blue sky we are in fact perceiving the ether around us'.
- The **cosmic astral** is expressed in the glittering realm of the stars. 'In the radiant light the invisible astral body of the cosmos reveals itself to us.'
- The **cosmic ego** does not exist in space. Just as the human ego manifests...in a threefold reality. It continues through repeated earthly lives again and again. The cosmic ego can only be found in the **pure flow of time**.
- 'On earth we do not experience the reality of time at all'. We experience time only through space'

'Only when we die and leave space behind do we experience time!'
(See *The Festivals and their Meaning* by Rudolf Steiner The Whitsun Festival.
P300)

The Sun

*'When we look up from the earth to the sun, we are at the same time looking into **the flow of time**'.*

'The sun does not only radiate light, it radiates space itself'.

'The movement of the sun is only a spatial one within space. Outside of space it is a movement in time'

*'On the earth the astral is the highest; in the cosmos the **Spirit Selfhood** is the highest element'*

'if one lives within the sun and looks down from it to the earth one beholds the physical, etheric and astral. One may also gaze within the sun itself, then Spirit Selfhood is constantly in view'.

'As you look out into the great universe earthly nature vanishes away, and you have the etheric, the astral and Spirit Selfhood. This is what you will behold when you enter the realm of time, of the sun, between death and a new birth'.

(All quotations have been taken from '**The Whitsunday Festival. It's Place in the Study of Karma**'. This lecture is found in '*Festivals and Their Meaning*' (pp. 298 – 313). Translation by Matthew Barton; Rudolf Steiner Press; London.

The Zodiac as Spiritual Beings

"If you lift your arm and point upward, you have up there the realm of particular Thrones, Cherubim, and Seraphim. If you move and again point upward, you would find other Thrones, Cherubim, and Seraphim above you ... Suppose you wanted to point to some particular Thrones, Cherubim, and Seraphim, They are by no means identical, like a group of twelve similar soldiers, for instance. They differ considerably from one another. Each bears its individual stamp, so that as one looks upward from various points, one sees quite separate beings. In order to locate particular Thrones, Cherubim, and Seraphim, one denotes them by a particular constellation. It is like a signpost. In that direction over there are the Thrones, Cherubim, and Seraphim known as the Twins, over there, the Lion, and so on. The constellations of the zodiac are more than mere signposts ... It is important to realize that, when we refer to the zodiac, we are speaking of spiritual beings."

(The Spiritual Hierarchies and the Physical World: Zodiac, Plants & Cosmos, April 17, 1909)

Selected References

- Steiner, Rudolf; *An Outline of Occult Science*, Trans. H. Monges; Anthroposophic Press, Hudson, N.Y.; 1972.
- Steiner, Rudolf; *The Spiritual Hierarchies and their Reflection in the Physical World: Zodiac, Planets and Cosmos*; Lectures Trans. Rene Querido, N.Y., 1983
- Steiner, Rudolf; *Macrocosm and Microcosm Revised*; Translation by D.S.O. and C.D; Rudolf Steiner Press; 1968.
- Steiner, Rudolf; *Man as Symphony of the Creative World (Esoteric Studies)*; 12 Lectures Rudolf Steiner Publishing Co; 1949.
- Steiner Rudolf; *The Festivals and their Meaning* Translation revised by Matthew Barton (Especially The Whitsun Festival, Its place in the Study of Karma pps 299 – 313); Rudolf Steiner Press; London; 1996.
- Vreede, Elizabeth; *Anthroposophy and Astronomy*; Pub. By Anastasi Ltd; 2001.
Journal For Star Wisdom 2013; Edit. By Robert Powell, Lindisfarne Books.

Concluding Remarks

Steiner – Mentor not Master

Rudolf Steiner's teachings present a great challenge to the open enquirer. Not only are they contained in a bewildering number of lectures, they are given by a person who is somewhat an enigma himself. Steiner's teachings cut across orthodoxy in various fields including science and religion. Although he spoke authoritatively he cautioned his students to find their own path and not blindly accept his teachings. He provided 'stepping stones', or clues, to guide the true seeker rather than finished dogmas.

Spiritual Visionary and Polymath

Rudolf Steiner has been variously described as a great spiritual visionary, a scientist of the invisible, a polymath with an encyclopaedic mind. He was also a practical architect, agriculturist, educator and dramatist. He was a one-man university who wrote and lectured voluminously on scientific, medical, philosophical, mathematical, economic and religious issues with as much facility as he did on matters of art, drama, music, sculpture, poetry, eurhythmy and literature. He could not only converse and lecture on orthodox subjects, he could introduce new insights that altered widely accepted views. He regarded modern scientific thought as being at a transitional stage of development. It had shackled itself to a limited epistemology and a false understanding of the application of **Occam's Razor**.

Steiner's cosmological foundations enabled him to perceive the centrality of relationships, processes and forces. Steiner's cosmological framework and his enlarged epistemology gave his pronouncements the imprimatura of a true visionary.

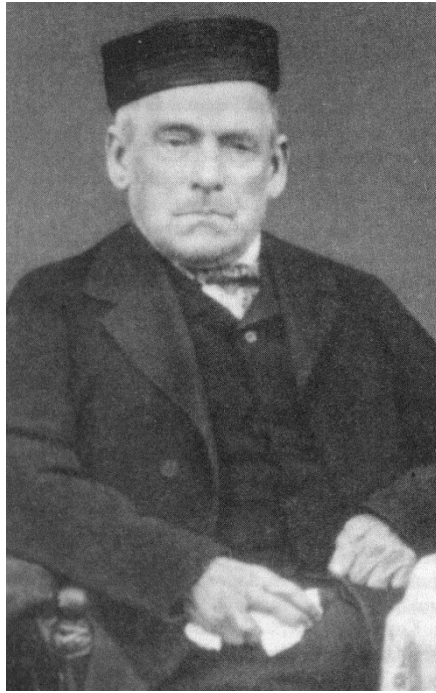
Cosmology: Macrocosm Imaged in Man

Steiner's cosmological framework is imaged in his elaboration of the nature of man. The 'Earth' was once a **Unity** that evolved through four stages with more to come. Similarly 'man' was a **Unity** that evolved through four stages. Multiplicity is contained in unity and the microcosm is a reflection of the macrocosm. In understanding evolution, it was necessary to focus on discontinuities rather than on missing links.

Steiner's cosmological framework provided him with insights that went a step further than orthodoxy. It provided a scaffolding for his cosmology. Although there are some minor inconsistencies in his utterances he sought to be open-ended rather than to formulate a closed system. Steiner's open-endedness allowed for the continuous development of man's consciousness. Anthroposophy is not a closed-system.

Self-Effacing with a Rich Inner Life

Steiner's self-effacing and obliging manner concealed a rich inner spirituality and a wealth of creative ideas. His appearance and behaviour were slightly outmodish. His speech and dress were somewhat out of fashion. He was, in fact, almost poverty-stricken, modest and frugal. Notwithstanding his social awkwardness, Steiner was courteous as a listener and a well-prepared and engaging public speaker. The treasures of his inner life provided a rich storehouse of knowledge and wisdom that belied his appearance.



Felix Koguzki (1833-1909)

Dr Karl Hickel and Felix Koguzki – Exemplars of Polar Thinking

Steiner's childhood and upbringing contrasted greatly with that of his parents. He was a sickly child from birth and did not begin school in Neudorf until he was eight. At Neudorf his father later withdrew him from the school and undertook the task of home-schooling. This dislocation to the pattern of education in Steiner's childhood produced a marked individuality in the child. At an early age he sought to integrate the influence of two cultures. These were the sophisticated Austrian culture and the agricultural Croatian culture. He was also influenced by the contrast between the technical knowledge of his father's railway employment and the natural beauty of a pre-alpine and pastoral landscape. This polarity was reflected in two of Rudolf's 'unofficial' tutors. Dr Carl Hickel represented the cultural forces of European learning. The herb-gatherer, Felix Koguzki, represented the peasant wisdom of medieval, pre-scientific learning. In his spiritual world Steiner acknowledged both the rights of Lucifer and Ahriman and sought to resolve the tension between them. Steiner usually identified positive and negative valencies in each pole. Sometimes he advocated three-folding whereby a balancing factor partially resolved the polar tensions. Steiner also perceived the changing interplay of polarities in the world of thinking.

Atomism and Goethean Holism

Steiner had an insatiable appetite for old and new knowledge. In his boyhood days he virtually taught himself Euclidean geometry. As a teenager he disciplined himself to read and re-read Kant's '**Critique of Pure Reason**'. These self-directed assignments played an important role in shaping his later thinking. He transcended the thoughts of Euclid by adding the projective geometry of Riemann and Lobachevsky. He later developed an epistemology that overcame the pessimism of Kant's epistemology. In fact his '**Philosophy of Freedom**' was his reply to Kant. However, it was his years of editing the scientific papers of Goethe that introduced a remarkable alteration to his thinking style. It was a style that went beyond simple, sensory observation into holism. It added teleology to causality and placed man at the centre of the evolutionary scale rather than at its apex. In this new world-view the spiritual world progressively 'matterised' and man's evolutionary development faithfully imaged the processes of world evolution. Man was a microcosm of the macrocosm.

Epistemology

As a student of Goethean science Steiner developed a novel epistemological foundation for his version of 'Spiritual science'. He accepted the importance of sensory data but he also re-defined the meaning of, and the number of, the senses. While orthodox science is based on the primacy of sense – percepts Steiner gave primacy to the thinking activity that organises percepts into concepts. Like Goethe, he espoused a doctrine of 'objective thinking'. The organisation of cognition comes from the phenomenon itself instead of from the self-assertive thinking of the investigating scientist. Furthermore one does not discover the organising principle as an 'outsider'. However, the further breakthrough to the perception of spirit realities, which he predicted, has not, as yet received confirmation.

Style of Thinking

Although Steiner arranged his lectures in a logical style the content of his presentation was paralogical. This was because the nature of his own thought processes had a poetic colour which sought meaning from unfamiliar associations. Steiner was not interested in decoding symbolism. He sought meanings hidden in relationships, processes and cycles. These meanings were inferred and not observed. He regarded historical and meteorological events as symptoms of underlying spiritual forces at work. His scientific investigations were directed at finding the **idea** hidden in nature. All of his analyses were **hermeneutically** oriented. A spiritual force or process was at work in the observable world of the senses. He often began with holism. For example the original 'Earth' included the 'Saturn' phase, the 'Sun' phase and the 'Moon' phase. The 'whole' contained all parts.

Influence of Ancient Traditions

The sheer productivity and the scope of Steiner's lectures and books have made it easy for many of his followers to believe he gained his insights and knowledge by clairvoyant means. This belief may, in fact, have some truth to it. Notwithstanding, it is also possible to detect his indebtedness to many ancient and medieval writers – especially the Gnostics. Steiner's 'Riddles of Philosophy' also demonstrated that he was thoroughly familiar with the scientific thought of the modern era even though he disagreed with some of its findings.

Steiner was exceedingly reluctant to dismiss ancient and medieval thought as immature. He sought to describe it as presenting truths that modern science had failed to comprehend. Thus his appreciation of the value of alchemy, astrology and Rosicrucian teachings is interpreted by critics as an indication of his lack of intellectual rigour. If anything, his thoroughness was an earnestness of his scientific fairness.

The Philosophia Perennis and European Medievalism

The Philosophia Perennis found its way into European Medievalism and it was expressed in the alchemy of von Nettesheim and Paracelsus as well as other spagyrics physicians. It also gave rise to a Rosicrucian Enlightenment and a healthy respect for astrology and divination. Dr Dee and Robert Fludd were eminent in these fields. These occult sciences emerged later in Freemasonry, Rosicrucianism, Theosophy and Spiritualism in various guises. Rudolf Steiner's Anthroposophy also drew on the teachings of these movements.

Steiner was particularly well-versed in Rosicrucian teachings – especially those aspects concerned with alchemy and physics. He combined this learning with the Goethean theory of colour. He extended the application of Goethean metamorphousness to other domains than botany.

He propounded his own theories about the nature of warmth and light. Steinerian physics is regarded as very unorthodox by modern western science.

Steiner's Chymische Hochzeit

Steiner was not only well versed in occult movements. He actually obtained a charter to operate under the name of 'Mysteria Mystica Aeterna' (see Section 5). He lectured on Free Masonary, Theosophy and Rosicrucian teachings. He gave particular attention to Johann Valentin Andreae's allegorical fable, 'The Chemical Wedding of Christian Rosenkreutz'.

Andreae's fable was an account of the union of opposites, and the transmutation of baser spiritual qualities into the gold of spirituality. Steiner's 'Chymische Hochzeit' was the marriage of Art and Science. This union is the essence of Anthroposophy.

From Synthetic Geometry to Qualitative Mathematics

A great deal of Steiner teachings can only be understood by the Application of the principles of synthetic Geometry. In his treatment of the human skeleton, he went further than Goethe's understanding of the vertebral relationship of the cranium to the spinal column. He was also able to relate the long bones of the skeleton to the cranium. He did this by process of inversion. By turning the long bone inside out he related the forces of the long bone to the formation of the skull. This was achieved by changing the from the radial principle to the spheroidal. To understand this Geometry, one has to understand the curves of Cassini and Lemniscate of Bernoulli. Steiner's thinking led him to work in both space and counter space. These ideas are found in Steiner lectures 'Interdisciplinary Astronomy'. These lectures also appear online 'YouTube'.

Centrality of Christianity

Steiner held Christianity in high regard and sought to give The Christ being a central role in planetary/cosmic evolution. Steiner understood Christianity had nationalistic origins. This developed into a catholic or universal world-wide application. However Steiner's teachings extended the application a stage further. He sought to imbue Christianity with a cosmic role. The cosmos had a spiritual nature and a spiritual destiny. When the Christ being departed from the Sun and came to the Earth this was an event that spiritualised the planet. Steiner's later teachings concerning the Virgin Sophia and the role of the feminine divine have not been openly embraced by the Christian Community or by all Anthroposophists. Steiner acknowledged a special role in Christian theology for the **Archangel Michael** and for **Christian Rosenkreutz**. Steiner's broad synthetic style of thinking led him to see Christianity in its relationship to Zoroastrianism, Mithraism, Judaism, Buddhism and Taoism. In his lectures on the festivals he revealed the relationship of Christianity to nature and also to astronomy. Steiner's concepts of Christianity include both the Cosmic Christ and the Virgin Sophia. Astrosophy is a development out of early Anthroposophy. Anthroposophy does not demand obedience to a creed or catechism. It does seek to lead mankind to a spiritual understanding of man and the universe. Steiner believed that knowledge and insight were not fixed. They were open-ended. Furthermore, the consciousness with which man attained insights was, itself, capable of changing!

A New Age Herald

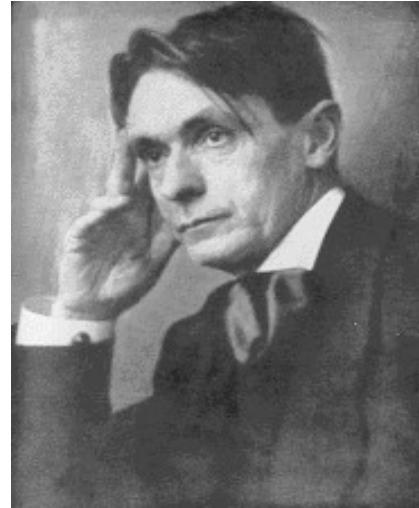
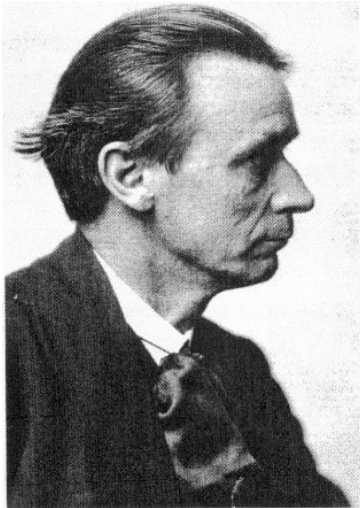
Rudolf Steiner was a great visionary thinker. His impressive moral, spiritual, intellectual and artistic endowments require a long focal distance to be appreciated. In his inclusive and synthetic style of thinking he garnered the thought of ancient and medieval traditions and sought to relate them to theosophical and modern scientific thought.

Among the most important influences in his life one would have to include the Gnostics, the Greek philosophers, the mystics, the Rosicrucians, Swedenborg and the German philosophers – Kant, Schiller, Fichte and Hegel and especially Goethe.

Steiner matched his philosophical knowledge with an unusual grasp of mathematics and theoretical physics. He was greatly influenced by the non-Euclidian geometry of Riemann and Lobachevsky. He brought this interest into his understanding of a new scientific methodology. He explored applications of this new style of thinking into his explorations of space and counterspace.

Steiner's contribution to architecture, agriculture, education, medicine, economics, religion, drama, speech and the arts of sculpture and eurhythmy should have made him well known. This however, did not happen. His contribution in these fields displays great originality but there is a reluctance to accept the epistemological basis of his thought in this age of materialism. His identification with clairvoyance and the akashic chronicles did not attract orthodox thinkers.

While Steiner and Dr Elizabeth Vreede had a close working relationship it is not clear to an outsider that Steiner gave endorsement to all of her thoughts on Astrosophy. I regard his particular form of esoteric Christianity as his least satisfactory pursuit. His contributions to education and agriculture will probably be his most enduring legacy. It is to be greatly regretted that his social and political theory has not, as yet, taken root. His development of the new art form of eurhythmy displays artistic genius of a high order. Along with Goethe and Jung, Steiner drew attention to the inadequacy of deterministic materialism. He celebrated the marriage of Art and Science and heralded the new age of conservation and environmental responsibility.



Rudolf Steiner

APPENDIX A

A Refutation of Materialism by Gary Lachman

This extract has been taken from Gary Lachman's *Rudolf Steiner - An Introduction to His Life and Work*, published by Jeremy P. Tarcher/Penguin Group; 2007, pp. 91-97. It is Lachman's commentary and understanding of Steiner's *The Philosophy of Freedom*. This summary provides a refutation of materialism from a Goethean point of view.

'It is Steiner's central belief that it *is* possible to approach the spirit world scientifically, that means in clear consciousness and with a discriminating mind, in *this* life. For years he had tried to communicate this insight to his friends, sadly unsuccessfully. It was this obsession that led his friends to consider him either a bit eccentric, or, ironically, a kind of abstract hyperrationalist, who had to approach everything through ideas.

When we realize how intently Steiner focused on this insight, and for how long, it's surprising that he didn't suffer some kind of breakdown - and in fact, later, it seems that Steiner did go through what the historian of psychology Henri Ellenberger calls a "creative illness." Steiner admits that during his Weimar years, whenever he withdrew from social life - which, during the Goethe festivals, could be demanding, especially for Steiner, who was a part of both the official and the unofficial cultural worlds - he felt the only world he really knew was the spiritual one. The other world, that of "things seen," still remained unreal for him. The outer world, he wrote, "appeared to me somewhat shadow-like or picture-like," while the inner world for him always had a "concrete reality." It must have been a trying time for Steiner. He talks of visiting friends and, as usual, entering into their world and their way of seeing life. But no one ever entered his world. He was at home in the world of others, but no one was ever at home in *his* world. "My innermost being had always to remain within itself," he writes. And perhaps most telling: "My inner world was really separated from the outer world as if by a thin wall." Again, this is a feeling shared by many creative individuals, yet it is also a characteristic of Anthony Storr's schizotypal personality.

It's clear that the need to bring his thoughts together and to finally make the reality of this inner world absolutely unequivocal, had something more than intellectual ambition behind it. Although written with all the apparatus of philosophy and logic, and couched in a dry, academic style, *The Philosophy of Freedom* is more than a book of ideas. It's Steiner's assertion of his own reality. It's also a work of genius, and one suspects that Steiner's later occult reputation has prevented the book from receiving the kind of attention it deserves.

Although practically all commentators on Steiner's work agree that *The Philosophy of Freedom* (or, as it has also been translated, *The Philosophy of Spiritual Activity*) contains within it all of the essentials of anthroposophy, the book itself makes no mention of a spiritual world, in the sense of an actual other world accessible to human consciousness, nor does any other standard anthroposophical theme, like karma, the afterlife, or reincarnation make an appearance. It's rigorously and exhilaratingly a book about thinking. Steiner believed that he had succeeded in carrying Nietzsche's own thought to a higher level, and said so in a letter to Rosa Mayreder. Steiner may have thought twice about linking the fate of his book to Nietzsche; although at the time of writing, the mad philosopher was the focus of almost worldwide attention, during his career, he was even more obscure and lonely than Steiner. Steiner's book was

marginally better received than Nietzsche's, although not by much, and the fact that his publisher issued a first edition of only 1,000 copies argues that he didn't expect it to sell (in fact another edition wasn't published until 1918). It's curious that the book Steiner expected the most from, and into which he poured years of thought and reflection, is one that many people who develop an interest in anthroposophy have the most difficulty with - at least according to an informal survey carried out by the present writer. Steiner's later books dealing with outright anthroposophical ideas, like *Theosophy, Knowledge of the Higher Worlds and Its Attainment*, and *An Outline of Occult Science*, although filled with rather provocative material about astral bodies, chakras, and planetary evolution, seem to provoke less resistance than this admirably clear, albeit abstract, account of the nature of human thought. Steiner himself insists there's no essential difference between his occult teachings and this early essay in epistemology, and he accounts for the fact that he kept his spiritual insights to himself until he was forty by referring to an "occult law" that allowed him to speak openly about them only then. (In the Barr Document, Steiner states that his occult master required "everything in the clothing of Idealist philosophy.") Many followers of Steiner agree, and insist that his early philosophical activity was in preparation for the spiritual teaching to come. Yet to an unbiased reader, it's clear that there's nothing occult about the early writings, and anyone who follows Steiner from *Theory of Knowledge in Light of Goethe's Worldview* (1886) to *Friedrich Nietzsche: A Fighter Against His Time* (1895), will see in him a passionate Idealist, trying to throw a monkey wrench into the machinery of materialism. In *The Philosophy of Freedom*, he succeeds.

Steiner's fundamental idea is that, when we open our eyes, what we take to be a simple, immediate perception of the external world, is already infused with the content of our inner, spiritual world, our consciousness. So when materialists insist that our consciousness is a product of the material world (as many of them still do today), this is really a case of putting the cart before the horse: the material world they refer to is already shot through with their own consciousness. Steiner speaks of "percepts" and "concepts" and the reader lacking a philosophical background can get sidetracked by his vocabulary, but his basic insight is easily enough grasped. Once we see that the materialist, in speaking of matter - or whatever form of it he or she says is at bottom the source of consciousness - is really speaking about his or her *ideas* about matter, we are halfway to intuiting what Steiner is on to. Steiner said as much in his early work on Goethe, when he wrote that "When one who has a rich mental life sees a thousand things which are nothing to the mentally poor, this shows as clearly as sunlight that the content of reality is only the reflection of the content of our minds."

Anyone trying to come to terms with the current fascination with explaining consciousness should repeat this last sentence as a kind of mantra. It's a version of the basic Idealist position and has been voiced by people like William Blake, Samuel Taylor Coleridge, Emanuel Swedenborg, Edmund Husserl, and dozens of others in different ways. The dominant view of consciousness, going back at least to Descartes and carried on by philosophers like John Locke, is that consciousness is essentially passive. Locke argued that there was nothing in the mind that was not first in the senses and that at birth our interior world is a *tabula rasa*, a blank slate, waiting to be written upon by the outside world, a proposition that any parent will find preposterous. (Cognitive scientists may pooh-pooh the idea, but most parents recognize that their children arrive with the kernel of

personality already present.) What Steiner and his fellow Idealists are saying is that you would not even have an outside world unless you first had something inside. This is a variation of Goethe's notion of objective imagination, the idea that truth is not something out there, waiting to make a mark on our virgin minds: it's a product of the harmonious meeting *between* out there and in here. Far from a passive recipient of impressions from an inaccessible outside world, consciousness is a kind of hand, reaching out and giving shape and form to what would remain mere empty chaos. We find it difficult to grasp what a world perceived *without* thought would be like, because since around our second year, we have only seen a world already informed by consciousness. It takes the equivalent of an epistemological crowbar to wrench our contribution to our perceptions apart from their recipients. When we look at a garden and see a tree, we see *a tree*, and not the alleged molecules and atoms it is made of, nor the blotches of light and colour that make up its surface. One of the most difficult of philosophical methodologies, phenomenology, is precisely the discipline of separating what we *know* from what we *see*; it requires us to describe *not* what something is - for example, a book - but how it *appears*, a rectangular surface of a certain colour, and so on.

Along with undermining the materialists, Steiner also wants to refute his old nemesis Kant, by showing that there are no limits to knowledge, in the sense that there is a realm or area of life or the world which is off limits to cognition. Kant (and Schopenhauer and Hartmann after him) had argued that *behind* the sensory world lay (metaphorically) an inaccessible real world, of which our senses produce impressions which we translate into mental pictures, which are merely subjective, with no relation to reality. Our consciousness of the world is, in this view, like a video monitor relaying the images sent to it by a camera; for Kant and his followers, all we can ever *know* is what we see on the monitor; we can *never see for ourselves* what the camera is showing us. Steiner argues that this is untrue and that we are already directly aware of what the camera is showing us. There is no world behind the sensory one, but within it, as Goethe had argued, lies the *complete* reality, which is made accessible (or rather manifest) through our own spiritual activity, that is, the act of knowing. As thinking beings we are already inhabitants of the spiritual world - the world, in metaphysical terms, of the *noumena*, or causes, of which the sensory world, or world of phenomena, constitutes the effects. And it is through our recognition of thinking as a free, spiritual act - as Steiner calls it, a *supersensible* one - that we can come to an experience of ourselves as free spiritual beings and of our own inner world as portals into the world of spirit itself.

The problem, Steiner recognized, is that we are unaware of ourselves as free, spiritual beings. We are also unaware of the immense creative power of our own consciousness, and so our "normal" perception of the world is far removed from the kind of world we would see if into our daily encounters with it we put the kind of energy and attention Goethe did when he went in search of his *Urpflanze*. Most of the time, we stare blankly at the world, accepting the poker face it returns, unconsciously confirming the misconception that our consciousness is passive and undermining any possibility of motivating ourselves into pouring more energy into our awareness. Steiner's extraordinary insights into the spirit world, and the vividness with which he experienced his own inner world, combined with Goethe's idea on imagination and produced in him the conviction that our everyday consciousness is a kind of lie. Or, if not a lie, than a dangerous half-truth, as in it we perceive only half of reality, yet accept it as the

complete picture. This incomplete picture gives rise to a host of debilitating consequences. The philosophy of materialism is one; our picture of ourselves as passive, near automatons is another. Our abuse of nature and the environment, which we falsely perceive to be dead and merely material for use, is another. Our general belief that at death the personality disappears is yet another. In fact, Steiner hit on the paramount intuition that our unconscious beliefs about ourselves and the world dictate the kind of world we live in and the kind of people we are. If anyone reading this book - or any book by or on Steiner - were to *really* grasp the importance of Steiner's insight, grasp it, that is, deep down in his most fundamental convictions, his or her world would be transformed. And that is precisely what Steiner had in mind in writing it.

After finally producing *The Philosophy of Freedom*, Steiner could rightly feel that he had answered the materialists and Kantians and that he had provided a firm foundation for the work that lay ahead. It mattered little that the book received minimal attention; after all, most books on philosophy do. What was important was that he had managed to turn his nagging intuitions into expressible ideas, and when the mind achieves this kind of clarity, half the battle is won. Now Steiner felt it was time to get the message across, and he set out to find ways to do this.'

APPENDIX B

An Example of Rudolf Steiner's Scholarship

Riddles of Philosophy

In his *Riddles of Philosophy* Rudolf Steiner displayed an encyclopaedic knowledge of Western thought. It is, in fact, two books. Book 2. was actually written first. It appeared in 1901 under the title; '*World and Life Conceptions of the Nineteenth Century.*' Book 1. was written in 1914 to provide an historical context and an introduction to the earlier work. It is not an entirely successful combination of two works. However it does demonstrate Rudolf Steiner's thoroughness in research and scholarship.

Part 1. of 'Riddles of Philosophy'

Part 1. begins with an examination of Greek thought from Thales (640- 500 BC) to the Neo- Platonists up to Proclus (410-485 A.D). He proceeds by examining the thought of the early and medieval Church Fathers. He is interested in both Scholasticism and Mysticism. This leads him to the European philosophers of the pre- modern era. He pays particular attention to Kant and Goethe. Their thought played a great part in Steiner's own thought development. Steiner not only displays a great understanding of 17th and 18th century European philosophy. He exhibits an unfailing fairness in the representation of the viewpoints of those with whom he disagrees. Part 1. takes the reader to the philosophic writings of Hegel (1770- 1831)

Part 2. of Riddles of Philosophy

Steiner wrote this work in 1901 and it appeared in his publications under the title: '*World and Life Conceptions of the Nineteenth Century!*' it is basically an examination of European (and British) thought of the nineteenth century. It examines both philosophical and scientific thought. The scientific thought included the theories of the evolutionists Haeckel, Huxley, Lamarck and Darwin.

List of Authors Examined by Steiner

The Riddles of Philosophy

Part 1 (Written in 1914)

(Historical Introduction to the Evolution of Consciousness)

Greek Thinking (Ch2)

Pherekydes of Syros

Pythagoras of Samos (549- 500 BC)

Philoas, Archytas

Thales of Miletos (640-550 BC)

Anaximander (born 610 BC)

Anaximenes (flourished 600 BC)

Heraclitus (born 500BC at Ephesus Cratylus)

Xenophanes of Kolophon (born 570 BC)

Parmenides (460 BC)

Zenon of Elea (Ω 500 BC)

Melissos of Samos (Ω 450 BC)

Anaxagoras of Clazomenae (b. 500 BC)

Empodocles (b. 490 BC in Agrigent)

Protagoras of Abdera (480-410 BC)

(Gorgias, Critias, Hippias, Trasymachus and Prodicus- all Sophists)

Socrates (b. in Athens Ω 470 BC)
 Plato (427-347 BC)
 Aristotle (b. 384 BC in Stageira, Thracia d. 321 BC)
 Zeno of Kition (342-270 BC), Kleanthes (born 200 BC, Chrysippus (282-209 BC)
 Epicurus (born 324 BC d. 270 BC), T. Lucretius, Carus (95-52 BC)
 Pyrrho (366-270 BC)
 Plotinus (205-270 AD and Neo-Platonists)
 Ammonius (175-242)
 Porphyrius (232-304)
 Iamblichus (4th c.)
 Proclus (410-485)

The Early Christian Philosophers

St Augustine (354- 430 AD)
 Clemens of Alexandria (d. ca- 211 AD)

Gnostics

Valentius
 Basilides
 Marcion
 Dionysis the Areopagite

John Scotus Erigena (d. 885 AD)
 Averroës (1126-1198)
 Maimonides (1135-1204)

Anselm of Canterbury (1033-1109)
 Thomas Aquinas (1227-1274)

Mystics

Meister Eckhardt (d. 1327)
 Johannes Tauler (d. 1361)
 Heinrich Suso (d. 1366)
 Angelus Silesius (1624-1677)

Nicolas Cusanus (1401-1464)
 Paracelsus (1493-1541)
 Jacob Boehme (1575-1624)

World Conception of Natural Scientists

Copernicus (1473-1543)
 Kepler (1571-1630)
 Galileo (1564-1642)
 Giordano Bruno (1548-1600)
 Francis Bacon of Verulam (1561-1626)
 Leonardo da Vinci (1452-1519)
 Descartes (b. 1596)
 H. Cardanus (1501-1576)
 Bernardinus Telesius (1508-1588)
 Benedict Spinoza (1632-1677)
 Gottfried Wilhelm von Leibniz (1646-1716)

John Locke (1632-1704)

George Berkeley (1685-1753)
 Condillac (1715-1780)
 Charles Bonnet (1720-1793)
 Claude Adrien Helvetius (1715-1771)
 Julien de la Mettrie (1709-1751)
 Paul Holbach (1723-1789)

Jean Voltaire (1694-1778)

David Hume (1711-1776)
 Christian Wolff (1679-1754)
 Gotthold Lessing (1729-1781)
 Johann G. Herder (1744-1803)
 Friedrich H. Jacobi (1743-1819)
 J. G. Hamann (1730-1788)
 A. A. Cooper (Shaftesbury) (1671-1713)
 Franz Hemsterhuis (1721-1790)
Kant to Hegel (Ch. VII)

Immanuel Kant (1724-1804)
 'Critique of Pure Reason' (1781)
 'Groundwork of the Metaphysics of Morals' (1785)
 'Critique of Practical Reason' (1789)
 'Critique of Judgement'
 Johann Wolfgang von Goethe (1749-1832)
 'William Meister'
 'Faust Parts 1 and 2'
 'Influence of Modern Philosophy'
 'The Metamorphosis of Plants'
 Johann Gottlieb Fichte (1762-1814)
 'Doctrine of Science'
 'Destination of the Scholar'
 'Concerning the French Revolution' (Abb.)
 'Vocation of Man'
 'Doctrines of Religion' etc.
 Friedrich Schiller (1759-1805)
 'Letters on the Esthetic Education of Man'

Karl W. F. Solger (1780-1819)

Friedrich Schlegel (1772-1829)

Friedrich W. J. Schelling (1775-1854)
 Friedrich D. E. Schleiermacher (1768-1834)
 George W. F. Hegel (1770-1831)
 Johann E. Erdmann (1805-1892)
 Franz Grillpazer (1791-1872)
 (See Hegel's 'Encyclopedia of the Philosophical Sciences' and his
 'Introduction to the Philosophy of History'.)

Part 2 (Written in 1901)*(World and Life Conceptions of the Nineteenth Century)***European Thinkers**

Karl Rosenkranz (1805-1879)
 'Life of Hegel' (1844)
 Ignaz P. V. Troxler (1780-1866)
 C. H. Weisse (1801-1866)
 Carl Ludwig Michelet (1801-1893)
 Friedrich A. Trendelenburg (1802-1872)
 Karl C. Planck (1819-1880)
 Alexander von Humboldt (1769-1859)
 Ludwig Buechner (1824-1899)
 Carl Vogt (1817-1895)
 Jacob Moleschott (1822-1893)
 Friedrich T. Vischer (1807-1887)
 Karl Gustav Reuschle
 Hans Christian Oersted (1777-1851)
 Carl Ernst von Baer (1792-1876)
 Rudolf Wagner (1805-1864)
 Heinrich Czolbe (1819-1873)
 Charles Darwin (1809-1882)
 Jean Lamarck (1837-1885)
 Lorenz Oken (1779-1859)
 Gustav T. Fechner (1801-1887)
 Herman Lotze (1817-1881)
 Charles Lyell (1797-1875)
 Thomas Malthus (1766-1834)
 Karl von Linnæus (1707-1778)
 David Friedrich Strauss (1808-1874)
 Hermann Helmholtz von (1821-1894)
 Jacob Henle (1809-1885)
 T. H. Huxley (1825-1895)
 Fritz Muller (1821-1897)
 Ernst Haeckel (1834-1919)
 Ellen Key (1849-1926)
 Rudolf Virchow (1821-1902)
 Eugen Dubois (1858-1940)
 Alfred Nehring (1845-1904)
 Bartholomæus con Carneri (1821-1909)
 Paul Flechsig (b. 1847)

Chapter 3**The World As Illusion**

Hippolyte Taine (1828-1893)
 Rosenthal (1836-1915)
 Emil Du Bois Reymond (1815-1896)
 Pierre S. Laplace (1828-1875)
 George Robert Kirchhoff (1824-1887)
 Herbert Spencer (1820-1903)
 Thomas Reid (1710-1796)
 William Hamilton (1778-1856)
 Henry Mansel (1820-1871)
 William Whewell (1794-1866)

John Herschel (1792-1871)
 James Mill (1773-1836)
 John Stuart Mill (1806-1873)
 Alexander Bain (1818-1903)

Chapter 4

Echoes of Kant

Paul Asimus (1842-1876)
 Hermann Cohen (1842-1930)
 Benno Erdmann (1851-1921)
 Ernst Laas (1837-1885)
 Alois Riehl (1849-1924)
 Richard Wahle (d. 1857)

Chapter 5

Scientific World Conceptions

Pierre J. G. Cabanis (1757-1808)
 Sestuit de Tracy (1754-1836)
 Maine de Biran (1766-1824)
 Paul H. D. von Holbach (1723-1789)
 Etienne Condillac (1715-1780)
 Andre-Marie Ampere (1775-1826)
 Jules Neville (1816-1909)
 Victor Cousin (1792-1867)
 August Comte (1798-1857)
 Claude-Henri de Saint-Simon (1760-1825)
 Eugen Dühring (1833-1921)
 Julius von Kirchmann (1802-1884)

Chapter 6

Modern Idealists World Conceptions

Rudolf Lotze (1817-1881)
 Gustav Fechner (1801-1887)
 Edward von Hartmann (1842-1906)
 William Wundt (1832-1920)
 Franz Brentano (1828-1912)
 Robert Zimmerman (1824-1898)
 Phillip Mainlander (1841-1876)
 Robert Hammerling (1830-1889)

Chapter 7

Modern Man and His World Conception

Bartholomeus Carneri (1871-1909)
 Friedrich Nietzsche (1844-1900)
 Arthur Schopenhauer (1788-1860)
 Richard Wagner (1813-1883)
 Karl Marx (1818-1883)
 Ferdinand Lasalle (1825-1865)
 William James (1842-1910)
 F. C. Sohiller (1864-1937)
 Hans Vaihinger (1852-1933)
 Karl Gegenbaur (1826-1903)
 Emile Boutroux (1845-1921)

Henri Bergson (1859-1941)
Wilhelm H. Preuss (b. 1809)
Wilhelm Dilthey (1833-1911)
Rudolf Eucken (1864-1926)
Heinrich Rickert (1863-1936)
Herman Cohen (1842-1918)
Paul Natorp (1854-1924)
August Stadler (1850-1910)
Ernst Cassirer (1874-1945)
Walter Kinkel (b. 1871)
A. V. Leclair (b. 1848)
Wilhelm Schuppe (1836-1913)
Johannes Rehmke (1848-1930)
Von Schubert-Soldern (b. 1852)
Carl du Prel (1839-1899)
Albert Einstein (1879-1955)

Chapter 8

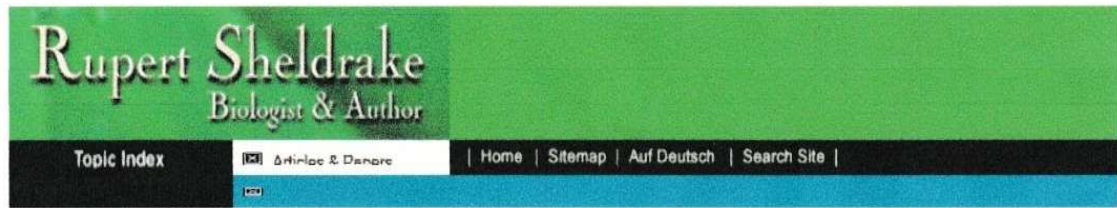
Anthroposophy

Rudolf Steiner (1861-1925)
Franz Brentano (1838-1917)

The Evolution of Consciousness

In his panoramic survey Steiner was not simply documenting a historical catalogue of thought. He was more interested in tracing the evolution of human consciousness. He was more concerned about how these thoughts had evolved and altered over the millennia. He was more interested in the transformation of thought itself rather than its content.

APPENDIX C

**MORPHIC RESONANCE AND MORPHIC FIELDS****An Introduction**

by Rupert Sheldrake

In the hypothesis of formative causation, discussed in detail in my books *A NEW SCIENCE OF LIFE* and *THE PRESENCE OF THE PAST*, I propose that memory is inherent in nature. Most of the so-called laws of nature are more like habits.

My interest in evolutionary habits arose when I was engaged in research in developmental biology, and was reinforced by reading Charles Darwin, for whom the habits of organisms were of central importance. As Francis Huxley has pointed out, Darwin's most famous book could more appropriately have been entitled *The Origin of Habits*.

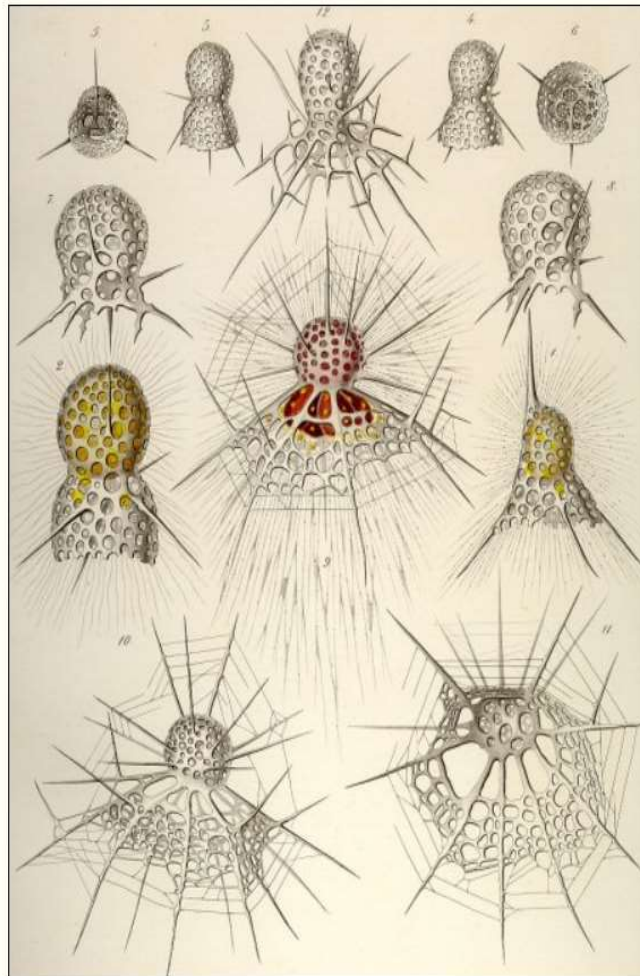
Morphic fields in biology

Over the course of fifteen years of research on plant development, I came to the conclusion that for understanding the development of plants, their morphogenesis, genes and gene products are not enough. Morphogenesis also depends on organizing fields. The same arguments apply to the development of animals. Since the 1920s many developmental biologists have proposed that biological organization depends on fields, variously called biological fields, or developmental fields, or positional fields, or morphogenetic fields.

All cells come from other cells, and all cells inherit fields of organization. Genes are part of this organization. They play an essential role. But they do not explain the organization itself. Why not?

Thanks to molecular biology, we know what genes do. They enable organisms to make particular proteins. Other genes are involved in the control of protein synthesis. Identifiable genes are switched on and particular proteins made at the beginning of new developmental processes. Some of these developmental switch genes, like the *Hox* genes in fruit flies, worms, fish and mammals, are very similar. In evolutionary terms, they are highly conserved. But switching on genes such as these cannot in itself determine form, otherwise fruit flies would not look different from us.

Many organisms live as free cells, including many yeasts, bacteria and amoebas. Some form complex mineral skeletons, as in diatoms and radiolarians, spectacularly pictured in the nineteenth century by Ernst Haeckel. Just making the right proteins at the right times cannot explain the complex skeletons of such structures without many other forces coming into play, including the organizing activity of cell membranes and microtubules.



Ernst Haeckel Tafel_06

Most developmental biologists accept the need for a holistic or integrative conception of living organization. Otherwise biology will go on floundering, even drowning, in oceans of data, as yet more genomes are sequenced, genes are cloned and proteins are characterized.

I suggest that morphogenetic fields work by imposing patterns on otherwise random or indeterminate patterns of activity. For example they cause microtubules to crystallize in one part of the cell rather than another, even though the subunits from which they are made are present throughout the cell.

Morphogenetic fields are not fixed forever, but evolve. The fields of Afghan hounds and poodles have become different from those of their common ancestors, wolves. How are these fields inherited? I propose that they are transmitted from past members of the species through a kind of non-local resonance, called morphic resonance.

The fields organizing the activity of the nervous system are likewise inherited through morphic resonance, conveying a collective, instinctive memory. Each individual both draws upon and contributes to the collective memory of the species. This means that new patterns of behaviour can spread more rapidly than would otherwise be possible. For example, if rats of a particular breed learn a new trick in Harvard, then rats of that breed should be able to learn the same trick faster all over the world, say in Edinburgh and Melbourne. There is already evidence from laboratory experiments (discussed in *A NEW SCIENCE OF LIFE*) that this actually happens.

The resonance of a brain with its own past states also helps to explain the memories of individual animals and humans. There is no need for all memories to be "stored" inside the brain.

Social groups are likewise organized by fields, as in schools of fish and flocks of birds. Human societies have memories that are transmitted through the culture of the group, and are most explicitly communicated through the ritual re-enactment of a founding story or myth, as in the Jewish Passover celebration, the Christian Holy Communion and the American thanksgiving dinner, through which the past become present through a kind of resonance with those who have performed the same rituals before.

The memory of nature

From the point of view of the hypothesis of morphic resonance, there is no need to suppose that all the laws of nature sprang into being fully formed at the moment of the Big Bang, like a kind of cosmic Napoleonic code, or that they exist in a metaphysical realm beyond time and space.

Before the general acceptance of the Big Bang theory in the 1960s, eternal laws seemed to make sense. The universe itself was thought to be eternal and evolution was confined to the biological realm. But we now live in a radically evolutionary universe.

If we want to stick to the idea of natural laws, we could say that as nature itself evolves, the laws of nature also evolve, just as human laws evolve over time. But then how would natural laws be remembered or enforced? The law metaphor is embarrassingly anthropomorphic. Habits are less human-centred. Many kinds of organisms have habits, but only humans have laws. The habits of nature depend on non-local similarity reinforcement. Through morphic resonance, the patterns of activity in self-organizing systems are influenced by similar patterns in the past, giving each species and each kind of self-organizing system a collective memory.

I believe that the natural selection of habits will play an essential part in any integrated theory of evolution, including not just biological evolution, but also physical, chemical, cosmic, social, mental and cultural evolution (as discussed in *THE PRESENCE OF THE PAST*).

Habits are subject to natural selection; and the more often they are repeated, the more probable they become, other things being equal. Animals inherit the successful habits of their species as instincts. We inherit bodily, emotional, mental and cultural habits, including the habits of our languages.

Fields of the mind

Morphic fields underlie our mental activity and our perceptions, and lead to a new theory of vision, as discussed in *THE SENSE OF BEING STARED AT*. The existence of these fields is experimentally testable through the sense of being stared at itself. There is already much evidence that this sense really exists [Papers on Staring](#)

You can take part in a staring experiment yourself through this web site. [Staring Experiments](#)

The morphic fields of social groups connect together members of the group even when they are many miles apart, and provide channels of communication through which organisms can stay in touch at a distance. They help provide an explanation for telepathy. There is now good evidence that many species of animals are telepathic, and telepathy seems to be a normal means of animal communication, as discussed in my book *DOGS THAT KNOW WHEN THEIR OWNERS ARE COMING HOME*. Telepathy is normal not paranormal, natural not supernatural, and is also common between people, especially people who know each other well.

In the modern world, the commonest kind of human telepathy occurs in connection with telephone calls. More than 80% of the population say they have thought of someone for no apparent reason, who then called; or that they have known who was calling before picking up the phone in a way that seems telepathic. Controlled experiments on telephone telepathy have given repeatable positive results that are highly significant statistically, as summarized in *THE SENSE OF BEING STARED AT* and described in detailed technical papers which you can read on this web site. [Papers on Telepathy](#) Telepathy also occurs in connection with emails, and anyone who is interested can now test how telepathic they are in the online telepathy test. [Experiments Online](#)

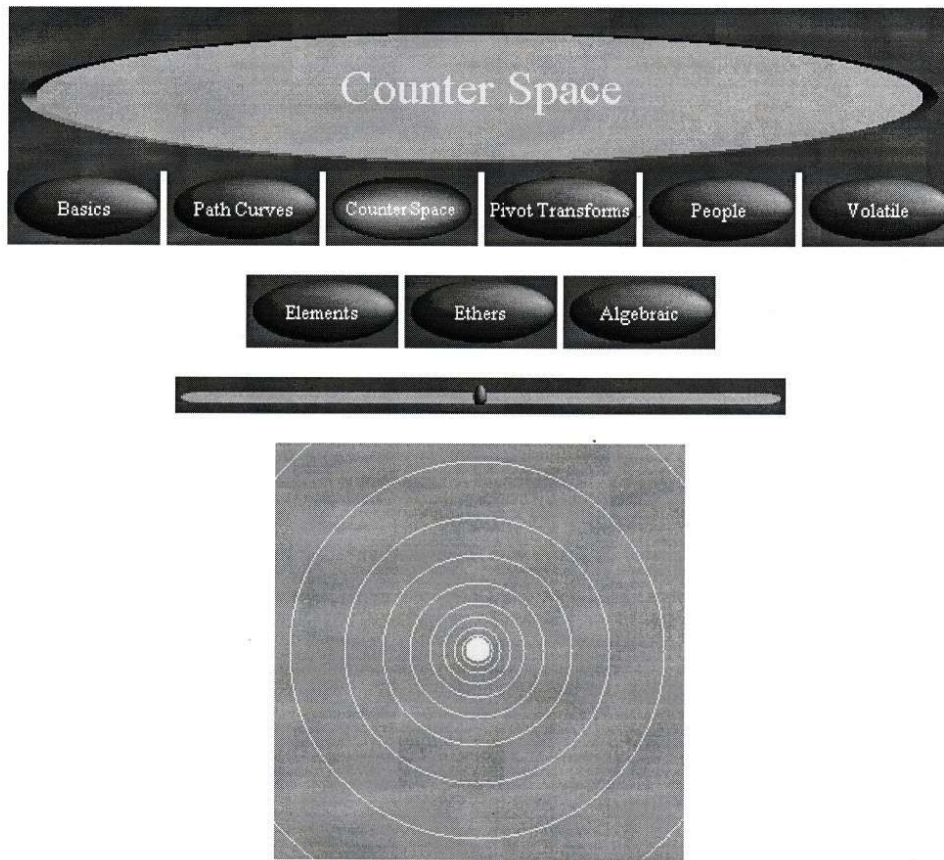
The morphic fields of mental activity are not confined to the insides of our heads. They extend far beyond our brain though intention and attention. We are already familiar with the idea of fields extending beyond the material objects in which they are rooted: for example magnetic fields extend beyond the surfaces of magnets; the earth's gravitational field extends far beyond the surface of the earth, keeping the moon in its orbit; and the fields of a cell phone stretch out far beyond the phone itself. Likewise the fields of our minds extend far beyond our brains.

February 2005

© Rupert Sheldrake. All rights reserved

[| Privacy Statement |](#)

Viewing Recommendation: Screen resolution in the range 800 to 1600px

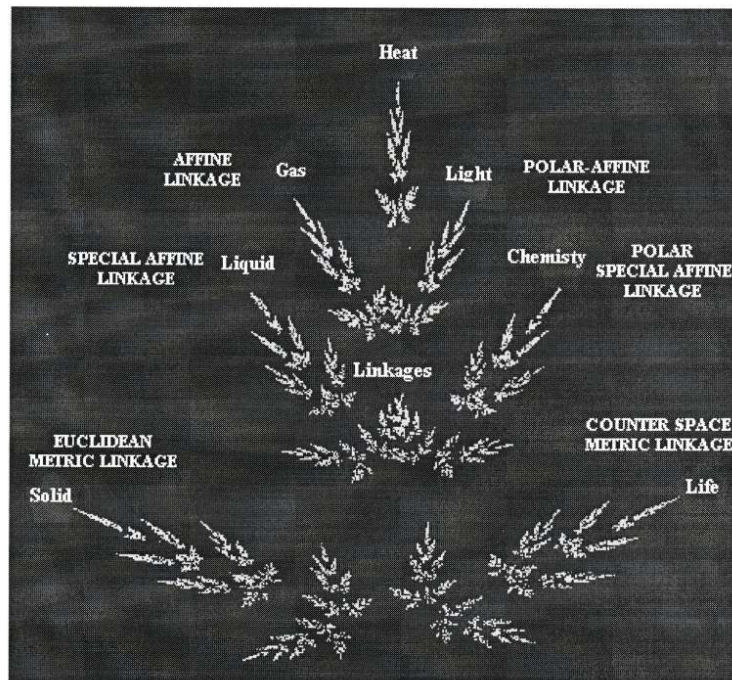


What is Counter Space?

Counter space is the space in which subtle forces work, such as those of life, which are not amenable to ordinary measurement. It is the polar opposite of Euclidean space. It was discovered by the observations of Rudolf Steiner and described geometrically by George Adams and, independently, by Louis Locher-Ernst. Instead of having its ideal elements in a plane at infinity it has them in a "POINT at infinity". They are lines and planes, rather than lines and points as in ordinary space. We call this point the *counter space infinity*, so that a plane incident with it is said to be an *ideal plane* or *plane at infinity* in counter space. It only appears thus for a different kind of consciousness, namely a peripheral one which experiences such a point as an infinite inwardness in

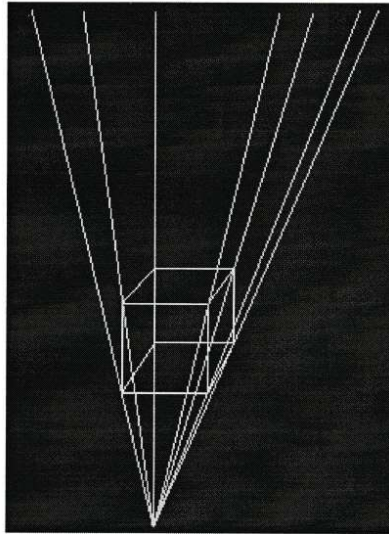
contrast to our normal consciousness which experiences an infinite outwardness.

Nick Thomas has explored the idea that objects existing in both spaces at once are subject to strain and stress, and an analysis of these leads to new approaches to gravity and other forces as summarised in the diagram below. The pentagons are 'hot spots' to explore further.



LINKAGES

A linkage is an element that belongs to both Euclidean- and counter-space at once e.g. a point or plane. Suppose a cube is linked to both spaces at once, and is moved upwards away from the inner infinitude. It will try to obey the metrics of both spaces, and the diagram below shows what happens as it moves, the yellow version obeying space and staying the same size and shape in space, while the magenta version obeys the counter space metric.



The counter space- or inner-infinity is shown as a point at the bottom, and lines have been drawn from it through the vertices of the cube. The counter-spatial movement is such that the vertices stay on these lines in order to obey its metric properties, as illustrated by the magenta cube, while the spatial one stays the same spatially. With our ordinary consciousness that is what seems natural, of course, but for a counter space consciousness the other is most natural and the yellow cube appears to be getting bigger (NOT smaller!!). The geometric difference between the two cubes is referred to as *strain*, analogously to the use of that term in engineering where it is the percentage deformation in size when, for example, an elastic band is stretched. The elastic band responds to the strain by exerting a force, which is referred to as *stress*. The central thesis here is thus:

1. **Objects may be linked to both spaces at once,**
2. **When they are, strain arises when they move as the metrics are conflicting,**
3. **Stress arises as a result of the strain.**

Note well that stress is not a geometric concept, and we move from geometry to physics when we consider stress. The major stress-free movement or transformation is rotation about an axis through the counter space infinity, which may explain the ubiquitous appearance and importance of rotation in most branches of physics e.g. in fluid flow.

This, and all else in the pages concerned with counter space, is explained in more detail in "Science Between Space and Counterspace" (Reference 11). Some algebraic details are given in the subordinate [algebraic page](#).

