

4072
ÅKERMAN, S.
1999

STIERNHIELM PYTHAGORIZANS AND THE UNVEILING OF ISIS

Susanna Åkerman

Section 1. Introduction

In 1653, Georg Stiernhielm, the poet, was sent from Sweden to Wasula in Ingria to work on the border dispute with Russia. At about this time he had started to polish his ideas for a system of language.¹ Stiernhielm, or Jöran Lilia as his name then was, published a thesis, *De Jure raptu et bigamia commentatio* (Dorpat, 1636), that, its theme notwithstanding, was not intended as a provocation.²

Stiernhielm (1598–1672) brought to Dorpat a vast learning which he had culled from lectures at Uppsala between 1610 and 1615, where he first enrolled with the Hebraist and Aristotelian Johannes Rudbeckius. From 1615 until 1623, Stiernhielm studied government at Greifswald. In 1625, he travelled to France and beyond, a perigrination for which his ties in high places had opened the doors. In 1631, Stiernhielm worked as a local judge at Wasula in Livonia, and handled difficult cases of sorcery, slander, and malice. To soothe his mind he exercised the art of iambic-alexandrinic verse. In 1643 he published an *Heroisch Fägnesong* signed with his astro-poetical pseudonym “Stellata de Casside.”³

Seeking to break away from his earlier legal career, Stiernhielm now left for Holland where he refined his macaronian lyrics by absorbing the dramatic poetry of Jacob Cats and broadened the basis of his thesis concerning a possible direct linguistic kinship of Gothic, the old Scandinavian tongue, and Aramaic.⁴

To increase his status, Stiernhielm planned to produce a special work, *Mysterium Etymologium Regni cancellario Axel Oxenstierna revelatum et consecratum* (1644). Brilliance in crafting epigrams and sonnets had prepared him for more direct favours at court. His useful system of hydrostatic measurements in metallurgy, *Archimedes Reformatus* (Stockholm, 1643), won approval from the Chancellor; in blue vellum covers it contains a poem on a silk worm whose life of hard labor in weaving a world is brightened by the rising sun. A contemporary reader has made a note in ink beside the sun, “S. R. M.” meaning the brightly shining, but adolescent, Queen.⁵

Section 2. A System of Music—the Vibrating Numbers in Motion

In his Archimedean treatise, Stiernhielm briefly spoke of the World Soul and the Pythagorean view of the cosmos as built by divine number. He extolled the harmony produced in “God’s singular building” through proportion, order, and measure. Profoundly influenced by spiritual poetry, he cited Xenocrates’ view of the soul, “the number that gains motion from itself.”⁶

Some years later, Stiernhielm revealed more exactly what this phrase meant for him. In the Pythagorean system of music, harmonic numbers are generated from the prime intervals in the three perfect musical concords: diapason, diapente, and diatessaron, viz., the modern octave, fifth, and fourth. Each major tone emerges as the difference (8/9) between a 5th and 4th. On a monal cord, these tones are generated at exact spatial intervals. An impulse thus measurably rebounds:

¹ Per Wieselgren, “Stiernhielms Wasula-arkiv”, *Svio-Estonica* 19, pp. 3–33 och “Juridiska Stiernhielmiana”, *Svio-Estonica* 20, pp. 59–83.

² *Svensk Biografisk Uppslagsbok*, “Stiernhielm, Georg”. Birger Swartling, *Georg Stiernhielm—hans liv och verksamhet* (Uppsala, 1909), pp. 34–35, citing Fr. Bienemann, “Ein Tumult in Dorpat A:o 1641,” *Baltische Monatsschrift*, 1900.

³ Sten Lindroth, “Stiernhielms studier i Uppsala,” *Lychnos* (1954–55), pp. 291–5. Swartling, *Georg Stiernhielm*, pp. 22–3.

⁴ *Ibid.*, pp. 48 and 110. “Jöran Stiernhielm i Holland” *Historisk Tidskrift* (1906).

⁵ *Archimedes Reformatus—Serinissimae Reginae Christinae Consecratus* (Stockholm, 1653), marginal note in the copy at Kungliga Tekniska Högskolan, Stockholm.

⁶ *Numerus Harmonio Platonico facilis et artificiosa genesis . . . Claves musical* (2 pages) Ms. Fd. 13, Quoted by permission of Kungliga Biblioteket, Stockholm. The poem *Harpa Mathematica* is listed in *Svio-Estonica* 19, see note 1 above.

		intende	4	3	4
G2	Diatessaron	remitte	3	4	3
Diapason	C3		Mp.	Mp.	Dp.
G4	Diapente	intende	3	2	3
		remitte	2	3	2

Or, as Stiernhielm comments with reference to Plutarch's treatise on music, "this follows from the Pythagorean and Platonic principles of the Monad and the Dyad," calling attention to the esoteric interplay between oblong and square numbers. While Stiernhielm's explanatory poem *Harpa Mathematica sive Lyra Proportionalis* seems to be lost, the contextual background of renaissance musical theory seems to confirm the interpretation that his views possibly stem from Giuseffo Zarlino's lectures on the enharmonic scale, the *Institutioni Harmonice* (Venice, 1558). Zarlino states:

Human music . . . is that which mingles the incorporeal energy of reason with the body, it is nothing other than a certain adaption or temperament as of low and high voices making a kind of consonance . . . even so in music one cannot hear the space between the high and the low voice when they sing; one can conceive of it but not hear it . . . this harmony can again be recognized in the division of the soul: the intellect, the senses, and the habitual autonomous functions. According to Ptolemy, these correspond to the ratios of three consonances: the octave, fifth, and fourth. . . . For these things will temper each other in the same way as a consonance will make high and low notes agree.⁷

Within the framework of human music (exemplified by the Phrygian scale DAEB FCGD), Stiernhielm assigns material principles (further explained below) to the intervals generated by the monal cord, thus:

Semen	2 27
Spiritus Cubica Hinc dici pr. Hominis radix	
Forma	3 9
Erit Nrq hominis 729 6 Cubi-Quadratus	

⁷ Giuseffo Zarlino, "On Musica Humana" pp. 134–5 in Jocelyn Godwin, *Music, Mysticism and Magic—A Sourcebook* (London: Routledge and Kegan Paul, 1987). See also Ernest G. McClain, *The Pythagorean Plato—Prelude to the Song Itself* (York Beach, Maine: Weiser, 1978).

Stiernhielm's development is controlled by the progression of numbers taught in *Timaeus* 36a (1, 2, 3, 4, 9, 8, 27), i.e., with the 9 before the 8, indicating primacy of place for what has been called the "supertrinity of the Egyptian ennead": $3 \cdot 3 \cdot 3 = 27$. The "human number" reached, 729, is explained in the *Republic* 587c, where Plato asserts that the just man "lives 729 times more pleasantly than the Tyrant." This image of the "just" tuning of the soul derives from Plato's tonal theory of numbers which is generated on a circular 12-tone scale. On such a circular scale, there are six rotations through each tonal fifth, from a C to the next C. The number of rotations through all possible fifths, spanning all the possible tones on the scale, therefore is 729. This number thus signifies all the tones of a well-tempered scale and is the formal number of the emanation from the One: the World Soul. Stiernhielm's use of the Phrygian scale DAEB FCGD is consequential because in the *Republic* this scale is offered as a tuning appropriate to the Guardians.

Now, from the above equation Stiernhielm goes a step further:

Cubicus quadrati	
	Seminis
q est Symphonia Natura Spiritus 3 27 Homo	Cubus 729
	Forma
	Anima Platonis

A stable harmonic structure is finally reached, called:

Corpus Naalis quadrata	
	Corpus Naalis
27. Vita	2 729 Homo
	Harmone

The construction of the image of a 729 cubit volume ($9 \cdot 9 \cdot 9$) to represent human proportion, or tuning, makes use of "seeds" as effective principles of nature. The idea of "vital kernels" acting as an informing substance, or a formative pattern, grows out of neo-Stoic or Paracelsian thought, here probably the former. The elements in the first stage of reaching a full human proportion, as a sort of "Symphonia Natura," joins with the "Corpus Naturalis quadrata" ($9 \cdot 9$). Given its seminal status, the final cubic form is perhaps

meant as a sort of (monozygotic) encoding for human genetic material.

These notes, from Uppsala, are dated 15 November 1653, and one can infer that Stiernhielm's understanding had grown out of discussions with the Italian court musicians, such as the Queen's personal aide Alessandro Cecconi.⁸ Earlier, there had been several continental theorists at court writing on Greek musical theory: Marcus Meibom on the Pyrrhic dance and Gabriel Naudé who, through Marin Mersenne, had participated in the philosophic debate on musical harmonies engendered by Johannes Kepler's *Harmonices mundi* (1619).

Section 3. Pythagorean Linguistics

His own system was worked out in fragments. His first sketch bears the title: *Fistula panos, Septem compacta ciculus—Lyra Apollinis Harmonia date, in Nuptiis cum Cadmo; hic est Symphonia Naturae*. Here, he spells out the principles for the mixture of elements, the creation out of a primordial chaos, the "hylè" of the Greeks. He finds that these principles were imparted to Pythagoras by the northern philosopher Orpheus. Later, they reached Empedocles, Democritus, Chrysippos, and Zeno, whose Stoic doctrine abstracts the creation schemes Plato and Aristotle. Stiernhielm planned to give a table of conceptual principles involved in the Pythagorean progression: monas, dyas, trius. He showed that this triad was equivalent to the trinity Deus, Materia, Lux found in most mythologies. For example in the Persian triad: Mithra, Ariman, Oromaz. These principles could even be represented as a quaternion (Cornu Panos) generated in the form of a pyramid, emanating from a primeval source.⁹ Stiernhielm tried to capture a notion of the potential movement in things, arranged according to essence, essential modes, and substance:

	unum	posse	perpetuere solere
essentia	bonum	agere	essendi modi
	verum	habere dare	debere decernere
	Mens		
substantia	Lux	= lucere, celere, spirare, movere	
	Materia	= quieta, recepienda, humida, frigida	

The action of mind is linked to Lux in terms of movement, as with the taking of breath, or poetic inspiration (spirare). Stiernhielm refers to the notion of light in Zabarella's "De Mente Agente," a commentary on the last pages of Plato's sixth book of the *Republic*. In his various systems, Stiernhielm strove to incorporate ideas on the creation of matter and light from Zabarella, Lipsius, and Jean D'Espagnet. He also tried to reach a popular audience through an illustrated catalogue depicting a system of theosophy (similar to that of Robert Fludd) entitled *Schema Demonstrativa Philosophiae primae* (Stockholm, 1650). The manual is very interesting because it gives a pictorial framework for the philosophical elements that he later worked out. It is composed of fourteen images depicting the stages of creation through a confluence of linguistic principles and the heat of the sun. They were proof-printed in a limited edition. Almost nothing is known, however, of how they were received by the readership.

Stiernhielm's later fragments contain the titles: *Monile Minerva, vera & genuina Naturae Principia, rerumque Genesim & ordinem exhibuens* (1651); *Umbra Sapientiae divinae & humanae* (1652); the *Arachnae Minerva Arctoe* (1653); and the more distinct and enigmatic *Peplum Minerva Arctoe* (1653) (i.e., "the cloak of Minerva unveiled").¹⁰

As Johan Nordström points out, the background of these pursuits is set out in Plutarch's collection of Egyptian myths, *Of Isis and Osiris*. Stiernhielm had become particularly captivated by the report of the inscription on the walls of the Temple of Isis at Memphis: "I know all that there is, all that have been, and all that will be; but as of

⁸ In 1653, Cecconi was sent to Florence with a commission to copy interesting manuscripts. See Susanna Åkerman, *Queen Christina of Sweden and Her Circle: The Transformation of a Seventeenth-Century Philosophical Libertine* (Leiden: Brill, 1991), p. 97.

⁹ "Dua Opposita contraria," Ms. Fd. 4:5, f. 46v, 22v. Quoted by permission of Kungliga Biblioteket, Stockholm.

¹⁰ For other titles and versions, e.g., *Peplum Minervae in quo sub specie intextu telae Arachnae adumbratur Philosophia et Theologia hoc est Sapientia vetus et nova* (Januari 1652), see Swartling, *Georg Stiernhielm* pp. x–xi and Johan Nordström, *Georg Stiernhielm*, (Stockholm: Bonniers, 1924), 2:2, pp. 205–15.

yet, no one has torn off (detexit) my cloak (peplum)."¹¹ To tear aside this cloak, to unveil the goddess of Isis, was Stiernhielm's burning desire and what better object for vain devotion was there than the Swedish Queen, who was moved so easily by incantations to Minerva? Sensing Queen Christina's resistance to royal marriage, Stiernhielm saw, however, that he should abandon the titles referring to a wedding of Lux and Matter and instead concentrate on the formative power of Mind. But, Stiernhielm, apparently, did not have the ability to win the Queen's support. In the spring of 1654, just before the departure of the Queen, he wrote the bitter and sarcastic epigram:

Femina nulla sapit nec erat nisi ficta Minerve
Textrix non Rectrix, si qua Minerva fuit.

("No woman is wise and Minerva was only a fiction.
If there was any Minerva, she was a weaver, not a
sovereign").¹²

Section 4. *Lux and Psychosophia: The Pythagorean System*

The fragmented manuscript for the *Monile Minerva* shows that Stiernhielm also sought to deepen his ideas from Robert Fludd through readings of Ficino's annotations to Plotinus' *Enneads*, book five, especially chapter nine, and to the Hermetic Pimander.¹³ The necklace of the title, the chain of Minerva or the "hormon" of the Greeks, was presented as a thick three layered bronze necklace in old northern style. The necklace presents an unusual number of eighteen hypostases between man and God, running crisscross from Lux, Mind, and Matrix (5 plus 12 links).¹⁴ Stiernhielm finally wrote a dialogue, *Gnothi seaiton vocum Pythian, Umbra Sapientia Divinae et Humanae*. The different turns taken by Simplicius and Astraeus in the dialogue expresses the system in an accessible courtly form.¹⁵

Stiernhielm probably developed his ideas further at the Stockholm

¹¹ Nordström, *Georg Stiernhielm*, 2:2.

¹² Per Wieselgren, *Stiernhielms bref och smärre skrifter* (Stockholm, 1924), p. 616.

¹³ Plotinus, *The Enneads*, trans. Stephen Mackenna, 5:9 on intellectual principles, "the principle whose beauty is selfspringing."

¹⁴ Reprinted in Nordström, *Georg Stiernhielm*, original Ms. Fd. 5 in Kungliga Biblioteket, Stockholm.

¹⁵ Nordström, *Georg Stiernhielm*, original in Uppsala UB. Stiernhielm is thinking of Astraeus in Ovid's *Metamorphoses*.

court academy between 1649 and 1651. While there is no formal record that he met with Descartes there, Stiernhielm is on the list of participants in the first Academy at court in the winter of 1649–50. Such discussions were increasingly important to Stiernhielm after his disappointment in the winter of 1650 with the turgid, neo-Stoic, Cartesian system which he scorned as "philosophare sine mente," (i.e., "philosophical without mind"). Similarly, Stiernhielm regarded Aristotle's system as an arid philosophizing "sine mente et luce."¹⁶ Needed in all systems, Stiernhielm thought, is an animating fever, a vibrant soul, and he chose to call it "Lux." Central to its production is the spoken word, language bent over itself and then pronounced. This relationship is made precisely clear in his arrangement of a wheel in his *Philosophia Muta—philosophia barbara indocta*, through which the fallen angel Lucifer reigns over a mute and sterile world.

Section 5. *Idiotam Dialogo de Mente: Maa, Naa, Rao, and Aia*

In spite of his resistance to Cartesian ideas, Stiernhielm's scientific focus is perhaps best revealed by his own comment on a letter of Descartes to Marin Mersenne dated 30 July 1640 in which Descartes examines chemical process. Descartes begins by stating his view of the soul as seated in the pineal gland and then describes how matter operates in the plenum. Descartes doubts that there could be a void filled with indivisible atoms differentiated only by their shapes. Instead, he explains that chemists need only two principles: Sulphur is a sort of oil (flammable) with a microstructure that branches out with a clinging texture; Mercury is a sort of water (inflammable) with a slippery or gliding texture. These two forms of cohesion could easily be explained by his own undifferentiated theory of matter. The only remainder of the process is Salt, the "terra damnata" or "caput mortuum" of the alchemists. Stiernhielm comments that:

¹⁶ Ms. Fd. 4, KB, Stockholm: "Plato interdum sine luce: sed multa mente; Aristoteles sine Luce & Mente philosophantur." Quoted by permission of Kungliga Biblioteket Stockholm. Stiernhielm's source is Justus Lipsius, *Manducatio ad Philophiam Stoicam*, see Johan Nordström, *Georg Stiernhielm*, p. 142.

What science applies to the principles of Chemistry? Look up Descartes' letter to Mersenne . . . where there are these words: "je ne concoy point ces parties indivisibles, ni autrement differentes entre'elle, que par la diversit, de leur Figures." He even says that chemists understand sulphur as oil; mercury as water. It seems to me that there is nothing on earth except created shapes, species that are made by the composition of one Naa (natural) body.¹⁷

Naa is the shorthand term Stiernhielm uses in his philosophy to designate the corpuscular nature of created matter. He thought of Naa (Natura) as a primary substratum and that Naa would suffice to constitute all the elements, all the genera and species of living matter, and, thus, all there is. Stiernhielm's "created shapes" were probably the Pythagorean solids presented in Plato's *Timaeus* taken to represent the elements; the same ones as those (cube, icosahedron, sphere) that Stiernhielm had David Klöker Ehrenstrahl paint into his portrait in 1663. Like Descartes, Stiernhielm argued against the existence of a vacuum, against the neo-Epicurean atomist Pierre Gassendi.¹⁸ There is no evidence that Descartes ever saw Stiernhielm's *Specimen Demonstrationum* but his friend, the Ambassador of France, Pierre Chanut, later that year told Isaac Vossius that Stiernhielm's system was not thought through.¹⁹

To Stiernhielm, Nature is not, as with Aristotle, produced through form (specie) and matter but rather, as with the Stoics, it is produced by a cause (causa) and a unified, inert, and chaotic matter abbreviated as Maa. The cause is light (lux) and mind (mens). When light vivifies the female component Maa, then her daughter Naa, a corporeal informed substance, is generated. This Naa is always beautiful (multa pulchra) and is the unmixed substrate of all natural genera, the Aia (anima).²⁰

¹⁷ "De Principiis Chymici quid sit scientia? vide Cartes in epist 40 ad Mersenne Tom 2, p. 235. ubi his verbis: éje ne concoy point ces parties indivisibles, ni autrement differentes entre'elle, que par la diversit, de leur Figures' dicit ibidem Chymicos intellegere sub Sulphure, Oleum; sub mercurium Aquam. Mihi sunt nihil visi Terrae abusque creationes figmenta; species facta ad compositorum von (sic) unius Naa corporum." Stiernhielm Ms. Fd. 9. f. 31. Quoted by permission of Kungliga Biblioteket, Stockholm.

¹⁸ Pierre Gassendi was invited to Stockholm by Pierre Bourdelot and Isaac Vossius, both intrested in the atomism of Lucretius, see Åkerman, *Queen Christina*, pp. 73ff.

¹⁹ Pierre Chanut's comment in Isaac Vossius' Concept book 8, VI F28. Quoted by permission of Amsterdam UB. Copy in Nordström's Nachlass box 11. Uppsala UB.

²⁰ Ms. Fd. 5. Quoted by permission of Kungliga Biblioteket, Stockholm.

Stiernhielm found reference both to the corporeal Naa and to the genera "Aia Mundi" in the *Idiotam dialogo de mente* by Nicholas of Cusa.²¹ All three—Maa, Naa, and Aia—are conceived as female principles and to them are added the neutral Rao (ratio), a linguistic root representing order, number, and measurement. This gendered terminology is from the *Pimander* and in Ficino's edition the scheme is said to be Pythagorean.

Stiernhielm's focus upon matter, occurred early. In the new city of Gothenburg, on 8 February, 1635, Stiernhielm copied down three queries taken from Johan Alsted's physics: 1. Is Maa feigned as a unity by the imagination? 2. Is Maa an entity at all active? 3. What is the difference between the Aristotelian and the Mosaic Maa? No direct answers are given, but Stiernhielm copied down that Maa is a sensitive, but passive principle. Significantly, he added the Jesuit Piccolomini's enigmatic view that "Maa ornavi cupit ad forma tanquam foemina a viro."²²

Contemporary research on the linguistic roots (radixes) of these concepts led to a conjecture that they are Greek versions of earlier Phoenician concepts; Maa may be the Phoenician "Moth", just as Chaos may be their "Chaut." This hypothesis was, at least, Stiernhielm's view in 1656 when he set to work on Edmund Dickinson's recent investigation *Delphi Phoenicizantes* (Oxford, 1655).²³

Because of the Hermetic assumption of an original insight into the acts of creation, the Pythagorean scheme of Maa, Naa, and Rao was thought to be a fit prelude to chemistry, as can be seen in Stiernhielm's metallurgic fragment on how Art imitates Nature:

Ars Naa Aemula. In artificialibus Maa, exempl:
graa ferrum est, lux ignis, Mens faber, ferrum passio.
Naa forte et Rao conventionis.²⁴

Graa (gravida, gravitas?) is here a new linguistic invention, used to designate the addition needed to purify the gray, inert, but loaded,

²¹ Nicholas Cusanus, *Idiotam Dialogo de Mente*, i.e., The Layman's Dialogue on the Mind.

²² Ms. Fd. 3, pp. 252–3. Quoted by permission of Kungliga Biblioteket, Stockholm. "An Maa una sit ens imaginatum. 2. An Maa sit ens acta. 3. Quodam sit differentia inter maam aristoteliam et Mosaicam."

²³ Edmund Dickinson, *Delphi Phoenicizantes* (Oxford, 1655), pp. 16 and 66–7.

²⁴ Stiernhielm Ms. Fd. 9, f. 28. Quoted by permission of Kungliga Biblioteket, Stockholm.

character of one species of matter, iron ore, at a time before it is processed. Stiernhielm even thought that the orderly and informing Rao (ratio) could be linguistically connected to the Greek "Rhea," mother of the gods, and to the Swedish "Råd, råda till," i.e., "giving counsel."²⁵

In the papers which he wrote from Wasula in 1656, Stiernhielm struggles to find the correct terminology for his scheme of parturition; he sees Naa as forced, pressed, or promulgated out of Maa. "Naa (mentis filiae) est qua in Maa impata (decreta)."²⁶ But, radix Maa is evil; or as Ficino unfortunately says, "All evil reaches us through the female. At the altar (in the Eucharist) flesh is engendered from the body of Maa. Thus Naa (corpori) is bred by Maa, and they have contrary qualities." Or in the Florentine's own words, "Omne malis a Foemina nobis accidit. Ara scilicet corpori mancipata a Maa corporis. A contrarietur qualitatem elementalium."²⁷

On this scant evidence, Stiernhielm affirms that there are three kinds of soul, "Triplex est Aia: Ex Mente, rationalis; ex Luce vitalis sive Aialis. Ex Maa mortalis rado-que brutalis." He repeatedly writes of Maa as a destructive gravity, a gravity brutal to the mind and alien to measure: "Maa corruptelem & ultimo destructionum mortium & non esse in fort. Brutalius est a Mente, idoque Rao, ordine, numero, mensura etc. alieno."²⁸

Stiernhielm's system is both saliently gendered and conspicuously sexed, although it is not at all as bluntly erotic as is his celebrated shorter enigmas and sonnets.²⁹ To understand the world of these Baroque thinkers, critics often concentrate on their self-assertive maleness, as in Stiernhielm's *Hercules* or the other verse. Yet, the Hermetic ground of his philosophic treasures is better clarified by interrogating the female attributes of his thought. Jungian concepts of the repressed mother/father imago may well explain the threatening release of the chaotic Maa and her low-key murmuring in the background of creation. In 1656, he had promised Biörnclou to produce

²⁵ Ms. Fd. 9, f. 33.

²⁶ Ms. Fd. 9, f. 15.

²⁷ Ms. Fd. 9, f. 16.

²⁸ *Ibid.*

²⁹ In 1668, his "Enigma for the Ladies," a sexual pun on the viola da gamba, was printed on an advertisement for the *Hercules*, see Per Wieselgren, *Snio-Estonica*, No. 19, pp. 3-33.

a "philosophia nova: mysteriis Zoroastris, numeri Pythagorae."³⁰ It was perhaps related to the Corpus Naalis quadrata:

Corpus Naalis

27. Vita 2 729 Homo

Harmone

In this figure, creative principles, musical harmonies, and numerical relations together form a world of solid fact, a world still replete with mystery and hidden correspondences, that first when grasped by an active intellect can reveal themselves as entirely proportionate. Measured polyphony of voice and music was as vital to Stiernhielm's system as the paper and ink on which he wrote because, to the Pythagoreans, a spoken word is closer to thought than one written and reveals more directly the presence of mind and the reality of soul. One dimension is thus critically lacking, the dimension of the vibrant voice.

Poetic consonance of rhythm and rhyme is, however, a direct consequence of rhetoric because pure speech is based on writing, not on original thought. While Latin and Dutch verse can be reshaped into a Swedish poem, such a transformation does not show any desire to create a fully new poetic universe. This was precisely Stiernhielm's point. To him, words normally appeared only as transformations of an original dispensation; to construe new ideas, and thereby abandon tradition, actually seemed foreign. Yet, in this process of imitation and recycled use, thought and speech succeed in making reference back to the original soul; actually, even back to the image of the mother as revealed in Stiernhielm's ideas on "Radix Maa."

Following Plato's doctrine in the *Cratylus*, Stiernhielm assumed that while the form of a word could not perfectly resemble the form of a thing (423a), it is still possible, through another, non-sensible, sort of, resemblance to take the right name as an image of the thing (439a). We learn through the medium of names; yet knowledge of things is not derived from mere names, but from the image (eikon)

³⁰ 27 May 1668, Fd. 9, f. 20. Quoted by permission of Kungliga Biblioteket Stockholm. Stiernhielm to Matthias Biörnclou 26 Februari 1656 in Per Wieselgren, *Stiernhielms bref*.

these words express. Nevertheless, things are formed from simple elements that words can express through their image-function. Perfect words hence ought to be formed through the corresponding primitive elements of sound. According to Plato, the Greek vowel "iota" denotes a thinness that can penetrate through everything; it occurs correctly in "ienai," to speed, and "iesthai," to dash. Equally, the tremulant "rho" is found correctly in the Greek "rein," streaming, and "ierthai," to tremble.³¹

Similarly investigating the polysemy of names and things, Stiernhielm maintains that each word derives from a stem which, read in other contexts, can explain the use of the derived group as a whole. Each root, "maa" for instance, emerges as having roles in multiple discourses (classified through various verbal accusatives) and occurs in sequences universally spun through the European languages and which Stiernhielm believed had run from Scandinavian to Phrygian Greek (here underlined). Thus, Radix Maa forms a conceptual cluster variously grouped:

verba potentia: Mars, man, maritus, marsk, makt, mao, mængd;
 verba motus: maka, *moleo*, machina, magus, malus;
 verba generationis: må, *mao*, moo, mamma, magd (mö), minne;
 verba lucis: m'örna (illuscere), *mairo*, morn, morgon, måna.

A number of factors come into play in this form of grammar—biology, social relations of power, gender, and probably the unconscious—to form the qualities of different perceptual and emotional experiences superimposed on a pure semiotic flux. This "maotic" flux remains unrepressed into stable patterns, tapping its resonances into the passionate Epicurean dimension of humour, sex, song, poetry and laughter. Radix Maa is seen as an essence of raw matter unimposed on by form. As Sven Delblanc has noted, it points to a sort of prelinguistic flux of movements, gestures, sounds, and rhythms in which these semiotic maternal dreams can run unscathed from morality, religion and the patriarchal Law. Unable to cope with this female ecstasy, Stiernhielm repressed it into a sort of black death, the evil Maa. He even passed judgment on the darkness of the verba

³¹ Sven Delblanc has briefly noted that Radix Ma plays a unexplained unconscious role in Stiernhielm's system. There is a separate manuscript *Radix Ma sive Specimen istius vocis Etymologicum* (begun in 1649). On the *Cratylus*, see Swartling, *Georg Stiernhielm*, pp. xii and 79–80, n. 4.

lucis Maa as a whole: "Et hoc iterum ex mysterio indolis literae M, quae *obscuram* quidem et *opacam* revera in se habet et aliis insinuat."³²

Section 6. *Dua Opposita Contraria: Lux and Arachne*

Stiernhielm's central problem, no doubt, was how to understand Lux and its emanation from the World Soul; consider another fragment from 1656, one printed by Nordström:

The Soul of the World seems to me to be composed of mind and light & insofar as it animates the world, through a Material Spirit, which mediates. . . . I define it thus: The Soul of the World is the Mind's Light governing the World vitally and reigning. Or, it is the Mind's Light ascending in Mundane bodies. Or, as an act of Light and Mind, etc. This is what the Stoics call fire; fecund seminal reasons.³³

Here, Stiernhielm substitutes entirely a plainer Stoic scheme for the earlier Hermetic terminology. Of particular interest is the expression: "Anima Mundi est Lux Mente gubernata Mundum vivificans & regens." (The Soul of the World is the Mind's Light governing the World vitally & reigning).

In the mind's government and reign, in its action seen as "gubernata" and "regens," light is produced. The production of light is taken in a special way. Lux is seen as an internal mental attribute but it is also actively at work in the world. If the mind, now termed Minerva, manages to govern and attain a reign, she completes a system as well as sustaining it. An inquiry into the operations of the mind therefore is both subjective psychology and objective ontology. Or, perhaps Stiernhielm's attempts can fruitfully be termed a sort of pre-modern descriptive phenomenology, in short a psychosophia.

In much of Baroque philosophy, a centrally located idea of "God's dominance and reign" had become a distinctly theosophic formula for expressing not only (a) the ordered character of nature, (b) the

³² Swartling, *Georg Stiernhielm*, pp. 78–9. Interview with Sven Delblanc on Swedish Radio, 1989.

³³ Nordström, *Georg Stiernhielm*, p. 142. "Anima Mundi mihi videtur Composita esse ex mente et Luce & quatenus Mundum animat. . . . Eam sic definio: Anima mundi est Lux Mente gubernata Mundum vivificans & regens. vel: est Lux Mente accensa in corpora Mundano. vel: actus Lucis, et Mentis: etc. Ea est quem ignem vocant Stoici, ratione Seminale foccundum."

perfection of the natural system, i.e., its completeness, (c) the applicability of scientific principles to nature (its movement according to laws), but also (d) a special analog to human/male creativity.³¹

But if, as Stiernhielm further postulated in his main treatise, the Hebrew spirant "aleph" spins the world in the way the classical spider-woman Arachne was to spin it continuously by her polarity Minerva-Ratio, then aleph-logos is the sole key by which all things are tuned. According to a grim Greek myth, Arachne, the most skillful weaver of Lydia, challenged Minerva/Athena to a weaving contest. While Minerva wove into her web stories of those who had aroused the anger of the gods (mostly of acts wreaking punishment on younger women for challenging household authority), Arachne chose to weave the errors of the gods, errors, Ovid writes, such as the rape of Europe, and:

She wrought Asterie held by the struggling eagle, she wrought Leda beneath the wings of the Swan. She added how, in satyr's image hidden, Jove filled lovely Antiope with twin offspring, how in a golden shower he tricked Danaë; Aegina as a flame; Mnemosyne as a shepherd; Deo's daughter as a spotted snake. . . . Here is Phoebus as a country man . . . how as a shepherd he tricked Macareus' daughter, Isse; how Bacchus deceived Erigone with a false bunch of grapes; how Saturn in a horse's shape begot the centaur, Chiron. The edge of the web with its narrow border is filled with flowers and clinging ivy intertwined.³⁵

Neither Minerva, nor Envy, Ovid says, could find any fault in these images of rape and seduction. But Minerva was enraged by the excellence of Arachne's fabric and tore it to pieces. Struck by grief, Arachne hanged herself in a rope. Nonetheless, she was saved by Minerva, who transformed Arachne into an ever spinning spider. She was also told a horrid tale: "Live on, indeed wicked girl, but hang thou still; and let this doom of punishment (that thou mayst fear for future times as well) be declared upon thy race, even to remotest posterity." Eternally spinning patterns for the sails of the ships of the Argonauts, Arachne's story is chiseled on the frame of the Parthenon.

Images of this doubtful nature were also woven into the mantle spread around the statue of Athena/Minerva. Each year, at the sum-

³¹ Ms. Fd 5. Quoted by permission of Kungliga Biblioteket, Stockholm.

³⁵ Ovid, *Metamorphoses* VI, 103–130.

mer solstice, 21 June, this cloth (peplum) was carried from the Parthenon (the virgin temple) through the city to the *agorà*—a pan-athenian procession in memory of the earthborn (motherless) genesis of its citizens—to manifest in Ovid's words, "what reward she may expect for her mad daring." Stiernhielm knew the violent background to the myth because the Queen's scholar at court, Nicolas Heinsius, published at the Elzevier press a new complete edition of the *Metamorphoses* in 1652.³⁶

The myth of Arachne (present also in Velasquez' baroque painting of 1659) represents some central elements of a world exclusively structured around the male principle: masculine aggression thinly disguised as seduction and fertility. In the scribbling of Stiernhielm, on the other hand, Arachne and Minerva are seen as a "syzigia," a pair, a conjunction; a duality, i.e., connected. These creative contraries have deep historical roots. In the cosmology developed at Hermiopolis in Egypt based on the double-helix path of Sirius, the "syzigies" were specifically the twin years of good and bad (seven plus seven years) by which the world constantly renews itself. The syzigies manifest the strife of contraries, they are antithetical phenomena, but join in a spiral force to uphold the cosmos. Thus there is polarity, space, and time; all formed by a spontaneous generation through God's vibrant word and henceforth also structured in linguistic terms.³⁷

This ancient Hermetic scheme of opposites was transmitted by Nicholas of Cusa, who postulated that every opposition displays a tendency to union, an identity of contraries that attract and repel, to make a clear unity out of a confused plurality. Similarly, Giordano Bruno held that every power must evolve an opposite in order to be clearly manifested; this opposition, however, ultimately brings reunion. The process of arriving at a unity through the opposition of contraries required novel notions such as "coincidence of opposites" and "unsummable complementaries."³⁸

³⁶ *Metamorphoses* VI, 84. For a feminist analysis of the myth of Arachne, see "Spinning: Cosmic tapestries," in Mary Daly, *Gyn/Ecology—the Metaethics of Radical Feminism* (New York: Beacon Press, 1978), pp. 396–7.

³⁷ Is the opposition Arachne/Minerva meant to be taken as Mythos vs. Logos, as with Dionysius/Apollo, of a chaotic content opposed to logical form? Is it more sensual? Is it the pleasure vs. reality principle?

³⁸ My focus on the "syzigia" derives from a note by Nordström, box 6, Uppsala UB. Cf. Umberto Eco, *Le Poetich di Joyce* (Milano, 1962). Eco sees the oppositions in *Finnegans Wake* as dependent on a reading of Cusanus and Bruno.

But, Stiernhielm speaks in a system of male/female/ mother/father/ daughter-relations regulated by the unconscious. The rhythm and sound patterns are only "ironically" liberated from the unconscious and his fictional idea of Arachne/Minerva floats in this system. Modern psycholinguists note that the sound of poetry can reflect primary emotional impulses and that the beaten pathways usually take shape as a conscious logic in symbolic form. Would it seem inevitable that, like a nefarious fate, Stiernhielm's desire (or lack of desire) for the mother was going to be punished by the Oedipal Minerva?

Only after having repressed that conflict, can Stiernhielm assume the position of the father and, as one can easily see, his polarity is not structured as a benign female/male division, but as a polarity between two differing, and ideal, female heroines doomed to eternal strife. The spider's web, on the other hand, converges as a spiral net towards a central point—a centrum securitatis—the spider sitting in this web. To conclude, the masculine Aleph (the divine word) is indeed the center of Stiernhielm's universe, not Arachne.

IN: Festschrift in honor
of Richard H. Popkin