

# Three short essays in astrophysiology

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## The Man in the Zodiac

To this day there is no wholly plausible explanation, nor yet range of explanations, for the twelve Zodiacal signs. No single set of phenomena has been identified to which the twelve signs correspond in their sequence. Least of all may we see them unambiguously in the stars.<sup>1</sup> On the explanations presently available, the twelve Zodiacal signs were already the result of a hotchpotch of influences by the time of Aratus (c.315 BC-240 BC) and the temples at Esné and Dendera.<sup>2</sup> But this is to take an unduly pessimistic position. The chances of finding a single persuasive explanation should be much better than this. Our situation is like that of a detective with certain items of information to help him identify his quarry. Suppose X to live in Manchester. This reduces the pool to a few million. Suppose X red haired. This reduces the millions to a few hundred thousand. Each new item of information further reduces the pool which contains X. If there are enough items of information, and they are specific enough, then the pool reduces to a single individual. Similarly with the twelve signs in strict order. It is most unlikely that there are even two sets of phenomena which will fit the series sign by sign. Twelve is a huge number of separate items of

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<sup>1</sup> As Louis MacNeice remarks: 'Of the constellations, Leo is the only one who looks like his name' (*Astrology*, London: Aldus Books, 1964, pp.75-76). MacNeice observes attempts to derive the Zodiac names from seasonal activities, or in accord with the four elements, or attempts to recognise certain psychological traits in the depictions of the signs. Moreover there are different signs used in the various forms of astrology found around the world; see for example the accounts of the "zodiac" in China, Mexico, Tibet and India in Rupert Gleadow's, *The Origins of the Zodiac*, New York: Castle Books, 1968. In the present context we are primarily interested with "classical" antiquity, which concerns the Greco-Roman world, from where the recognisable basis of the modern western Zodiac is derived.

<sup>2</sup> Aratus, *Phaenomena*, Cambridge, MA: Loeb, 1955, p.1; Esné, *Description de l'Égypte Vol.1* Bonn: Benedikt Taschen Verlag, 1994, plate 87; Dendera, *Description de l'Égypte Vol.1*, pl.20.

information, and their being in strict sequence is a further extremely limiting factor. The riddle begs for a solution.

Let us rehearse just one feature of the Zodiacal calendar. The first degree of Cancer is the Summer Solstice in the Northern Hemisphere; the first degree of Capricorn is the Winter Solstice. From Cancer through Sagittarius is the descending half of the year during which the sun moves South; from Capricorn through Gemini is the ascending half of the year during which the sun moves North.

Aratus begins our earliest complete account of the twelve Zodiacal signs from Cancer, but he does not ascribe the signs to parts of the human body.<sup>3</sup> Manilius is the first to do so and he begins from equinoctial Aries at the head.<sup>4</sup> I say that the twelve Zodiacal signs represent the head and torso of a man. The signs from Cancer through Sagittarius represent his back in descending order; the signs from Capricorn through Gemini represent his front in ascending order. As follows:

FRONT	CROWN	CANCER
GEMINI	HEAD	LEO
TAURUS	NECK	VIRGO
ARIES	THORAX	LIBRA
PISCES	WAIST	SCORPIO
AQUARIUS	LOINS	SAGITTARIUS
CAPRICORN	PERINEUM	BACK

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<sup>3</sup> Aratus, *Phaenomena* L.542-552.

<sup>4</sup> Manilius, *Astronomica* 2.446-471, tr. G. P. Goold, Cambridge, MA: Loeb Classical Library, 1977.

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CANCER is the year's zenith, the top of the skull. A crab because the cranium is the most exoskeletal part of the body.

LEO is the mane of hair which grows over, or only round the cranium.

VIRGO is the nape of the neck, defenceless and mortally vulnerable.

LIBRA is the scales of the shoulders and arms.

SCORPIO is the vertebrae at the small of the back.

SAGITTARIUS is a backside with legs of its own.

CAPRICORN is the nadir, the anus through which waste is ejected and the scrotum from which new life is generated. Rank and horny.

AQUARIUS is the ithyphallic pipe which carries the living stream.

PISCES is the ejaculated spermatozoa.

ARIES is the hairy chest of a ram.

TAURUS is the bull's roaring throat.

GEMINI is a pair of eyes.

CANCER is the cranium again.

The twelve Zodiacal signs symbolise all the parts of a line or band around the torso and head of an adult human male. This line is comparable to the two Great Meridians of the human body in Chinese medicine, the first such lines in the study of acupuncture. As the Zodiac the line represents the human male at the very peak of sexual arousal, and the ejaculated seed is also represented. This ascription of the twelve signs to the parts of the human body differs from the traditional doctrine where Aries represents the crown of the head and Pisces the feet. The traditional theory includes the legs but does not distinguish between the ascending and descending signs. As a result Aries is as far from its adjoining sign Pisces as it can be. The traditional theory applies the signs to the body; the account offered here derives the signs from the body. Here the links between body part and sign themselves explain the choice and order of the twelve Zodiacal signs.

If the Zodiacal signs refer to the parts of a man's body, back and front, then these same parts of a man's body relate to the seasons of the year. The head comprises three summer signs of the Northern Hemisphere; the loins three winter signs; and the thorax the equinoctial signs. The male body is a representation of those astronomical movements which generate the seasons. The male body is a microcosm of the particular astronomical conditions experienced on earth,

geocentrically considered. Here purely temporal divisions are transformed into the spatial articulations of a body. But we achieve a similar transformation every time we recognise how the seasons of the year correspond to the arctic, temperate and equatorial zones of the earth in space.

Let us consider Capricorn. Capricorn is a very odd sign, comprising the front half of a goat and the rear half of a fish. This unfortunate hybrid is in the act of clambering out of the water onto dry land. All this reflects how the Sun's entry into Capricorn marks at once the moment of the Sun's furthest withdrawal from the Northern Hemisphere and the earliest moment of its return. We call this moment a solstice, a stasis or suspension of the Sun's movement north or south, geocentrically considered. According to Aristotle the Sun's approach to the Northern Hemisphere generates life there, while its withdrawal causes destruction.<sup>5</sup> So Midwinter's Day is at once the fullest triumph of chaos and the beginning of a new order. The Greeks and Romans consecrated Capricorn to Saturn since in this sign the Sun was furthest away as Saturn was the most distant of the planets. The Roman Saturnalia and later Greek Kroniades celebrated this God at Midwinter by making the householders slaves and the slaves their masters and mistresses.<sup>6</sup> In a season of good cheer everything was turned upside down and the Lord of Misrule presided over a ritualised revolution.<sup>7</sup> This is the dissolution represented by the fishtail and the water. The goat's clambering onto the land is the salvation of the New Year which begins the recovery of a pristine order.

The perineum exhibits this same dissonance and doubleness, the weirdness of the goat fish. The defecatory organ is right next to the generative organs. Here too is an end and a beginning. Worse, the urinary organs are, in part, identical with the generative organs:

But Love has pitched his mansion in  
The place of excrement.<sup>8</sup>

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<sup>5</sup> Aristotle, Vol.III 336a-336b, *On Coming-To-Be and Passing Away*, tr. E. S. Forster, London: Loeb Classical Library, 1978.

<sup>6</sup> Macrobius, *Saturnalia* VII.

<sup>7</sup> See R. Guénon, *Fundamental Symbols*, Cambridge: Quinta Essentia, 1995, pp.101-105.

<sup>8</sup> W. B. Yeats, from 'Crazy Jane Talks with the Bishop' from *Words for Music Perhaps*, 1933.

The waste of the anus is most dead and foul to us, ultimate dissolution. But the testicles are the source, with the female ovaries, of new life. In both sexes the closeness of the excretory to the reproductive organs is a startling thing. The organs which give us our greatest physical pleasure and the organs which most disgust us are side by side or actually identical. And all this is hidden away as secretly as our bodies allow, in the very depth of our winters. The descending path of the Sun from Cancer to Capricorn is the passage from mouth to anus, while the energies generated in the sexual organs rise up and invigorate the body from below. Those energies enable tumescence; the spurting seed; the hair on the chest; the deep loud voice; and most subtly of all, that gleam in the eye.

The Sun's course through the Zodiacal constellations is often represented by an astronomical circle drawn right round the sky above and below the horizon at an angle to the equator. The Zodiacal constellations above the equator are in the Northern Hemisphere where they are the signs of Spring and Summer. The signs south of the Equator accompany the Sun during the darker half of the Northern Hemisphere's year. The circle of the Sun's journey through the fixed stars bisects the equator at an angle of some 24 degrees; the constellations of Cancer and Capricorn occupy areas of the sky 24 degrees above and 24 degrees below the equator. But because Cancer and Capricorn are traditionally the Solstitial signs and mark the Sun's most extreme movements north and south, these two signs are themselves taken to represent North and South. The Zodiacal hoop which is actually set at only a slight angle to the equator is now forced onto its edge at right-angles to the equator. In this way the astronomical circle which we call the ecliptic is converted into a meridian. Now the line drawn from the first point of Cancer to the first point of Capricorn represents the pole itself, with the first point of Cancer as North Pole and the first point of Capricorn as South Pole. This pole is then assimilated to the human spine. Similarly the equinoctial signs correspond to the tropics and human thorax.

In this way a geocentric and Northern Hemisphere perspective on the cosmos enables an identification of the Zodiacal signs with the latitudes and of both with the male form. Summer is northern, Spring and Autumn equatorial, Winter is southern. Like the seasonal structure, this polar structure too is found in the male body, as the spine. Since a

man's body is connected not only with the seasons but with the latitudes, the Sun's journeys between its Northern and Southern tropics are one basis for understanding human anatomy.

I have used the expression "geocentric perspective." We have been concerned here with the relations between the heavenly movements and a man's body. We may think of that body as a microcosmic representation of the particular astral conditions which bear upon the earth on which men live. It is just these astronomical conditions as they affect the earth that shape the human body. So the heliocentric system is much less useful here than the notion of the Sun's moving through its signs. The derivation of the correspondences between the living body and the stars proceeds quite properly and scientifically on the geocentric system as the one applicable in this context of astro-anatomy.

Let us now bisect our solstitial Zodiac through the Equinoxes and not the Solstices. We draw an imaginary line from the first point of Aries, the Spring equinox, to the first point in Libra, the Autumn equinox. If we do the same to our male head and torso we divide it into two halves. The upper half comprises the head with the front of the torso as far as the sternum, and the back to the base of the nape. The classical bust.

According to Porphyry, Homer's 'Cave of the Nymphs' in the *Odyssey* has Cancer and Capricorn as its two gates north and south.<sup>9</sup> The Northern gate is the way down for mortals; the Southern gate is for immortals only. We may assume that it is through the Southern gate that Odysseus passes with Athene. René Guénon identified Porphyry's reading of Homer's Cave with Hindu doctrine concerning the light and dark halves of the year, interpreted solstitially.<sup>10</sup> If Porphyry is not anachronistic, then Homer knew the Zodiac as having two halves and as turning on what were traditionally the most northern and the most southern constellations in the Sun's path.

### **Proportions of Venus**

The equinoctial and solstitial readings of the Zodiac both ascribe the signs to parts of the human body. These ascriptions demand

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<sup>9</sup> Porphyry, *Concerning the Cave of the Nymphs*, tr. T. Taylor, in *Thomas Taylor the Platonist*, ed. K. Raine & G. H. Mills, London: Routledge & Kegan Paul, 1969, p.309.

<sup>10</sup> R. Guenon, *Fundamental Symbols*, p.159.

methodological justification since scientists now generally dismiss them. Ascribing the star signs to the human body has this much in common with contemporary scientific theory: these ascriptions too are fully expressible mathematically and are quite as exact. So, on the solstitial reading:

Cancer: crown :: Taurus: throat  
and  
Cancer: Taurus :: crown: throat

Euclid developed the theory of ratios and proportions in the fifth book of the *Elements*. In song the same science is realised in metre, metaphor and the musical intervals; Platonic astronomy turns on the mathematics of the diatonic scale;<sup>11</sup> again, according to Plato, fire is to air as air is to water as water is to earth.<sup>12</sup> Anatomy and sculpture are also based on the proportionate relations between all the parts and wholes of animal bodies, amply shown in the works of Polycleitus. Ancient science and art exhibit a general preference for rationalising in terms of proportion.

The case of metaphor is most striking. *If brains were dynamite, yours wouldn't blow your hat off* identifies the relation between brain and hat with that between say, mine and dirt. *Stephen Dedalus walked the streets of Dublin like the old moon looking at the young earth* identifies the relation between Dedalus and Dublin with that between old moon and young earth. Literature and wit too are often mathematical arts by which we come to understand the unknown, your brain power, Stephen's mood, by solving an equation in which all the other terms and the ratio are known to us.

The same science of proportions accommodates theology too. Take as an example an ancient rite of the goddess Athene. In Homer's *Iliad* the Trojan noblewomen present a robe to a statue of Athene as they

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<sup>11</sup> See Plato, *Republic* 617B. The relationship between music and the heavens is well known in the Pythagorean theory of the "harmony of the spheres." Fabre D'Olivet considers this relationship in his chapter, 'Survey of Celestial Music' (*Music Explained as Science and Art and considered in its relations to Religious Mysteries, Ancient Mythology and the History of the World*, tr. J. Godwin, Vermont: Inner Traditions International, 1987); see also the numerous excellent works of Joscelyn Godwin on this subject.

<sup>12</sup> Plato, *Timaeus* 32B.

pray that the goddess defend the walls of Troy against attack.<sup>13</sup> In the yearly festival of the Panathenaea the Athenians also presented a robe to a statue of the goddess. It seems that the robe of the goddess is the wall of the city metaphorically. The Athenians began the weaving of their robe nine months before its presentation to the goddess. The weaving began at the Chalkeia, a festival which celebrated group marriages. From this point of view the robe is a symbol of the human body which is nine months in the weaving or gestation. For just as the robe clothes the body, so the body clothes the soul with the unfamiliar tunic of our flesh.<sup>14</sup>

$$\text{Soul/body} = \text{body/robe} = \text{robe/walls}$$

With these successive investitures we have a parallel to the notes of the musical scale, which also can constitute a series in which a note is linked to the one before it and the one after it by the same ratio. One ratio generates the intervals of a regular gradation along a single continuum. In the case of the musical notes the continuum is pitch. In the case of Athene successive sheaths. In the case of the four elements it is their relative density. But a single ratio may also organise a number of terms discontinuously. So instead of the same ratio in the intervals of the terms in a series along one continuum:

$$a/b = b/c = c/d = d/e = e/f\dots$$

The same ratio may organise the intervals of terms discontinuously across two or more different continua. In this way we can apply the one ratio or relation to connect things of quite different kinds, not merely the terms in one continuous range but the terms in two quite different ranges. This is what is happening with the Zodiacal identifications with parts of the human body.

Take another astrophysiological example, the name Venus. The word “Venus” names a planet and also the Roman goddess of sexual love. The word “Aphrodite” did the same for the Greeks. The goddess

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<sup>13</sup> *Iliad* 6.286-311.

<sup>14</sup> Empedocles, frag.126; cf. frag.120, Homer’s account of Athene and Odysseus at the Cave of the Nymphs on Ithaca, and Porphyry’s account of both.



and the planet have the same name. The goddess of love stands over copulation on the pubic mound which bears her name.<sup>15</sup> The planet is the Evening Star which stands over the Sun's entry into the Western darkness. The Sun is the phallus of the Sky God which charges like a chariot into Night's palace. The delicate limbs of love are as full and as pink as the red sky of evening. Venus the planet stands in the same relation to the transition from day to night as Venus the goddess of love stands to the sexual act of male and female. This is why the planet and the goddess of love have the same name. The name is the key to a complex teaching which binds the phenomenon of dusk to animal copulation by virtue of a single ratio or pattern in two different dimensions. The evening sky and the act of love are identifiable.

Day/night = male/female

The word Venus is the clue. Once the thought of comparing day and night with male and female crosses the mind, the discovery of the correspondences continues indefinitely. So day is male, night is female. The galaxy is the milk of night's breasts. The moon measures her menstrual cycle. Through her Western doors the rounded phallus of the sky god enters his wife; in the womb of night the child is conceived and gestates; through her Eastern doors the rounded head of the sky god is born from his mother. There too Venus stands as Morning Star to aid this other passage.

Let us assume for the moment the equivalence between the heavenly movements and animal reproduction. What follows? We might say that the equivalence arises because animals on earth are formed after the pattern of the astral events which condition their existence under the sky. The microcosmic mortal creature reproduces itself in ways which copy the unions and divisions of day and night under which it lives. From a materialist point of view this has a certain appeal: the gross movements of the heavens determine and dominate the puny formations of the animals under them. Or we may prefer the ancient Greek cosmogonists who placed love at the very first beginning of things.<sup>16</sup> In their view, the heavens formed themselves around Love.

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<sup>15</sup> In females the *mons pubis* is sometimes called the *mons Veneris* (*mound of Venus*).

<sup>16</sup> For example, Parmenides, frag.13.

In this duplication of a single ratio between day and night and between male and female, it seems that neither the astronomical nor the sexological can be given precedence over the other.

We may express the ratio in an indefinitely long and arbitrary sequence as follows: Sun/phallus = milky way/milk = moon/menstrual cycle = planet Venus/Goddess of love, and so on. It was precisely the noticing, developing and symbolising of such patterns which sustained the Greek and Roman theologians. The Greeks thought of order, *cosmos*, as the systematic repetition of a single pattern. The pattern is repeated uniformly in a continuous series, like the musical notes or the elements, or it is repeated in two quite different and discontinuous dimensions, as in the evening sky and the sexual act. The “rationalising” bent of the ancient mind could reach for profound connections between things in ways which we have lost, for all that the musical series is as well known to us as it was to them. Certainly, the application of the one ratio discontinuously and between dimensions is a technique unknown in our sciences now.



Imagine you are standing at some point on the Equator. The Sun will be directly overhead this point at midday at the Equinoxes. Imagine, too, that you are looking West to the Western horizon, and that you have carefully marked in times past the most Southerly point just touched by the Sun's orb as it sinks below the horizon at the Southern Solstice. You have also marked the most Northerly point at the Northern Solstice, and the point where the centre of the Sun's orb sinks below the horizon at the Equinoxes. Imagine now that these three points mark the threshold of a great doorway reaching up to Heaven. Beginning from the furthest point South touched by the Sun, draw a line straight up into the sky. This line is the Southern doorpost of the doorway. From the farthest point North do the same to make the Northern doorpost. The threshold of the doorway is the section of the Western horizon between the Tropics; and overhead is the corresponding arc of the celestial meridian between the celestial Tropics.

Imagine now that this doorway in the Western sky is filled by a pair of great doors, as high as the Heaven. The door on the left has as its doorpost the line drawn straight up from the Southernmost point. The

door on the right hangs from an equivalent post in the North. The junction formed when the two doors are closed together is the line from the terrestrial Equator to the celestial Equator. We may imagine that during the six months the Sun is south of the Equator, the door on the left is open. During the six months the Sun is north of the Equator, the door on the right is open. At the Equinoxes both doors are open. Or perhaps they are both shut then and through the tiny aperture between them the Sun passes.

We have imagined the doorway as based on the section of the Western horizon between the extreme points of the Sun's Southern and Northern courses. These points are determined by the eye alone. The same is true of the Sun's risings over the Eastern horizon. At sunset and sunrise we can mark most easily the Sun's courses against the earth. But the doorway we have constructed with its doors may be said to stand at every point along the Sun's journey, though the exact location of its doorposts and doors are indeterminable by the eye except at setting and rising. On every meridian, on every line of longitude drawn round the globe through the poles, we may theoretically mark off the section between the Tropics to serve as the threshold, and the corresponding section of the celestial line of longitude to serve as lintel. In this way we may think of the Sun as passing through the doorway at every point on its journey. When the Sun sinks in the West, we think of it as entering through the doorway; when the Sun rises in the East, we think of it as leaving through the doorway. But it is just passing through the doorway at every moment and may equally well be imagined as entering or as leaving or as doing both simultaneously at every instant.

So far we have considered the doorway only in respect of the Sun's daily journey from East to West, by which it completes an entire circuit of the earth every day and night. But the Sun also moves against the fixed stars, relative to which its position changes as they all revolve around the earth. In relation to these fixed stars, the Sun fails to keep pace with them by a little less than one degree a day, and it takes a whole year to complete its retrograde circuit round them all. So while the passage of the Sun through the doorway on its daily circuit is the passage of a point between limits vastly wider than itself, the passage of the Sun through the doorway on its yearly circuit completely spans the distance between the limits of the doorposts twice. And though it is paradoxical it is quite proper to speak of the Sun's yearly journey

through the fixed stars as a passage from West to East. If we imagine for a moment the fixed stars actually stopped in the sky but the Sun continuing to move in its usual relation to them, then indeed the Sun would slowly move across the sky from West to East, taking six months in one continuous day before disappearing for six months completely. From this point of view the Sun passes through the doors of the doorway going from West to East, just as Apollo is represented in his chariot emerging from the Eastern pediment of his temple at Delphi, above the doorway and double doors of his temple.

This doorway is a symbol of that doorway we have been cutting into the illimitable sky over the last paragraphs. But it is still some conceptual distance from Apollo's temple at Delphi to the movements of the Sun. Building the Sun's doorway into the walls of a temple at once removes the ambiguity between entering and leaving which was a feature of the doorway by itself. On the other hand the pediment of the emerging Apollo is appreciated typically by someone entering the temple. Leaving the temple, one would be turned away from it. The God's emergence balances the worshipper's entrance. The doorway in the sky was determined entirely by the Sun's movements and the horizon. They were the only material phenomena in an otherwise undifferentiated and limitless expanse. The temple is the solidification of this empty space, which is limited in this representation by the ends of the Eastern wall in which the doorway is set. We may imagine the Sun's journey through space not as the passage of a solid body through a vast, dark void but as the penetration through what is dense and heavy by something extremely light and mobile. In this symbolism the interstellar spaces are assimilated to earth and the passages of Sun, Moon and planets to the tunnels and chambers in a labyrinthine building, say, or a system of underground caves.<sup>17</sup>

In these ways and with these qualifications the doors of Apollo's temple may be compared to the doors of the Sun, and the temple itself may be compared to the cosmos, geocentrically considered. But it is a truism that where temple and cosmos are analogous to each other, both will also be analogous to the human body.<sup>18</sup> The cosmos, the temple

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<sup>17</sup> For example, Plato, *Phaedo* 111-130.

<sup>18</sup> See for example, Ananda Coomaraswamy's essay, 'An Indian Temple: The Kandarya Mahadeo' in *Selected Papers Vol. I: Traditional Art and Symbolism*, ed. R Lipsey,

and the human body are the three primary houses of the spirit. To what in human anatomy do the doors of the temple correspond? The answer is clearly the female *labia majora*. The name Delphi was closely related to the Greek word for womb, *delphys*, and here too was the navel stone, the *omphalos*, which marked the first point of creation.

This account of the doorway began by constructing it on the Western horizon, after marking the Sun's settings. To think of the Sun's journey through the doorway as from East to West is less comprehensive than to think of the movement as from West to East. But at sunset particularly, Venus often appears in great glory on her mount and even the Sun is afraid of her. This Venus is Justice, who measures the Sun's courses. No longer the laughter-loving Goddess of Homer, now she is much-punishing<sup>19</sup> and the agents of her justice are the Furies formed at her birth.<sup>20</sup>

## Head and Face

First, then, the gods, imitating the spherical shape of the universe, enclosed the two divine courses in a spherical body, that, namely, which we now term the head....<sup>21</sup>

In Plato's *Timaeus* the gods who make the human head are the stars and planets, to whom the Creator gave the task of creating mortal creatures. The Creator could not accomplish this task himself since anything which the Creator made would last forever. The Creator made the Heavens and the Heavens made us.

The human head is the prime creation in the mortal realm because it most closely follows the pattern of the cosmos. For the purposes of Plato's analysis, the organisation of the cosmos has been founded on two related but distinct phenomena, geocentrically considered: the rotation of the fixed stars and the varying rotations of the planets. Plato calls the

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Princeton: Princeton University Press, 1977. René A. Schwaller de Lubicz offers an analysis of the Temple of Luxor based upon the correspondence of the design of the pharaonic temple with the image of man (*The Temple in Man*, New York: Inner Traditions International, 1977, p.97).

<sup>19</sup> Parmenides, frag.1.

<sup>20</sup> Heracleitus, frag.94.

<sup>21</sup> Tim.44D.

rotation of the fixed stars the course or circuit of the Same, and the rotations of the planets, all taken together, the circuit of the Different.<sup>22</sup> Clearly the rotation of the fixed stars, including the circumpolar stars, generates a sphere, and this is the model or pattern of the human head.

But Plato supposes that both the divine circuits are found in the human head, not just the circuit of the Same. Somehow that other circuit which comprises all the motions of the planets in contradistinction to the motion of the fixed stars, somehow this circuit too is bound into the human head. Plato transposes the cosmic motions into a metaphor of human thinking. When the motions of our thinking correspond to the heavenly motions, then we can see what is the same and what is different accurately. But when the motions of our thinking are disrupted, then we lose the capacity for rational judgement.<sup>23</sup> So disrupted can the interior motions become that they are the very reverse of the proper motions. Then everything appears to the judgement as if it were upside down and left to right. This is what the flood of experiences does to us while we are growing up, and it is only with maturity that the real circuits of the soul can reassert themselves and return us to a harmonious and rational state of mind. In animals this disruption of the proper circuits is not temporary but permanent, and this is reflected in elongations and other distortions in the sphericity of their skulls.

The race of wild pedestrian animals, again, came from those who had no philosophy in any of their thoughts, and never considered at all about the nature of the heavens, because they had ceased to use the courses of the head ... In consequence of these habits of theirs they had their front legs and the heads resting upon the earth to which they were drawn by affinity, and the crowns of their heads were elongated and of all sorts of shapes, into which the courses of their souls were crushed by reason of disuse.<sup>24</sup>

Leaving aside comparative cranial morphology, I find it hard to think of my mind or thoughts as moving like the fixed stars and planets in their courses. Plato makes clear that this is a case of “Use it or lose it.”

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<sup>22</sup> Tim.35.

<sup>23</sup> Tim.89E-90D.

<sup>24</sup> Tim.91E.

Human beings who do not practise theoretical astronomy, who do not consciously exercise their spherical mental motions, will be reborn as quadrupeds. Physical astronomers who gape at the actual stars without working out their motions from first principles are reborn as birds.<sup>25</sup> Their heads are still round but on thickish necks and rather small, we are left to infer, and they have wings. But they are also, of course, still bipeds.

Plato here is a philosophical Aristophanes. But the point remains that there is little serious evidence for assimilating our minds and thoughts to the cosmic motions. Though the rotation of the fixed stars provides the model of sphericity after which the human head is made, we have not discovered any link between that head and the circuits of the planets. But there is one feature of the human head which may matter here. In the *Myth of Er* Plato represents the planetary motions as like the rims of several bowls nesting inside each other.<sup>26</sup> These rims form a kind of plane surface like the whorl of a spindle, through the centre of which a shaft or pole passes. The same idea is conveyed by the spinning surface of Homer's Charybdis.<sup>27</sup> The crux is that the motions of the planets, including Sun and Moon, are all unidirectional and they all fall within a narrow belt between Tropics like those of the Sun. The planets rarely move more than 26 degrees north or south of the Equator. From this point of view, the Earth stands in relation to the planets as Saturn to its rings.

If we apply this schema to the human head, we draw a band around the middle of the head, the band's width corresponding proportionately to the tropic band around the earth. This band, it seems to me, would cover the eyes and ears like a blindfold. So the locations of the organs of seeing and hearing in the human head correspond to the location of the planetary tropics in relation to the whole earth. Seeing and hearing are, for Plato, the best of all our senses because they are connected to the heavens.<sup>28</sup> Sight has been given us to see the heavens, whose motions

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<sup>25</sup> Tim.91D.

<sup>26</sup> Rep.616C-617B.

<sup>27</sup> *Odyssey* 12. On this comparison and its astrological symbolism see R. Sworder, *Homer on Immortality: The Journey of Odysseus as a Path to Perfection*, Eastbourne: The Prometheus Trust, 2004, pp.39-45.

<sup>28</sup> Tim.47.

stimulate us to conceive of numbers.<sup>29</sup> From the study of numbers comes philosophy, the best gift of God to man. As for hearing it is made to hear the voice. The voice provides rational speech and singing. Singing employs those intervals which organise the planetary motions, so that listening to music helps to re-establish the planetary motions in our own heads. In this way, though music is not connected directly to the heavens, it is organised by the very same principles which organise the planetary motions, and so is cognate with those motions. There is then, a certain aptness in the placing of these two senses within the area cut out by the motions of the planets. They are the divine senses, the binding of the divine circuit of the Different in our heads.

Select any point on the surface of a sphere. Mark the point diametrically opposite to it on the other side of the sphere. Through these two points draw two great circles round the sphere at right angles to each other. The sphere now looks like an orange which has been cut into four equal segments and reassembled. Now draw a third great circle equidistant from the two points at which the first two circles crossed and at right angles to those circles. We now have three interlocking circles, each of which is at right angles to the other two, so this figure has much in common with the three dimensional cross.

Applied to the cosmos, the selected point is the celestial North Pole; the point opposite is the celestial South Pole; the first two great circles are two celestial meridians at right angles to each other; the third great circle is the celestial equator. The same account holds, *mutatis mutandis*, if we apply our sphere to the earth. Applied to the head, the selected point is the fontanelle; the point opposite is the opening to the throat; of the first two great circles, one passes through the fontanelle and the ears, while the other passes through the fontanelle and along the nose; the third great circle passes through the eyes and ears. Of course on this view, strictly, we should have one eye at the front of our heads and one at the back. But, as Plato points out, the Gods who made us felt that we needed a distinct forward direction and for this reason shifted all sight to the front and made the human face.<sup>30</sup>

The face is the epitome of the head. The head in all its aspects is more than our seeing can grasp at once. We do not see in the round but

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<sup>29</sup> Plato, *Epinomis* 978; Tim.47A-B.

<sup>30</sup> Tim.45a.



from one point on its circumference. The face represents the beauty of the head as seen from the limitation of a single point of view. The Sun, Moon and planets shine from our eyes. The eyes move freely in contrast to the face as the planets move variously against the background of the fixed stars. The hairline and the line between the closed lips suggest the arctic and antarctic circles. The point of the chin is a projection of the head's South Pole, to sustain the face's presentation of the head in its entirety. Even the furrows of a worried brow suggest an astronomer's lines of latitude round the Northern Hemisphere. When we look into the face of another person, we are seeing the cosmos as a mortal animal like ourselves. The cosmos, too, is a living animal but an everlasting one, and much too big and too complex for us to see with our eyes and know.



Is it true that the head, the face and the human reproductive systems are homologous with the movements of the stars and planets, viewed geocentrically? This is a question in morphology, of the same kind as questions concerning the relations between comparable organs in animals or in plants. In our times morphological studies of animals often proceed on the hypothesis that animals evolve from each other, while Plato supposed that they all descended from the human, becoming increasingly many-legged until they form into snakes and eventually disappear into the sea as fish.<sup>31</sup> Compared to seeing the differences between kinds of animals, the shift from studying the stars to seeing comparable formations in the human is enormous. But there is a certain intuitive rightness in Plato's notion that we are in this way microcosmic representations of the whole, and the physical similarities between the Sun's doors and the female doors, between the human face and the solar system, are immediately engaging, even if *outré*.



Such a physical similarity cannot be claimed in the case of the Zodiac's relation to the human head and torso. Seeing the seasons of the year as

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<sup>31</sup> Tim.91.

patterned in the same way as the human frame takes more than just a liberated morphological imagination. But even here the claim stands on its own terms. It is simply and strictly a scientific claim even by contemporary uses of the term science. Many, no doubt, would argue that these macrocosmic analogies to the human are bad science, but they would not, I think, dispute that they were scientific hypotheses. Certainly they are not religious or spiritual claims. Plato may have fantasised as to how those correspondences occur in a creation myth, but even in the myth it is the stars and planets which determine the human form. Even here there is nothing in play beyond what is strictly observable.

From a certain point of view, it is quite surprising that this way of reading the Zodiacal signs, these ways of understanding the human head and reproductive system, are not much better known, in outline if not in detail. After all, they make no claims on faith, they analyse observable data according to known methods, and they provide explanations of phenomena which are peculiarly dear to us. Furthermore, these ways of reading ourselves are enshrined in traditional forms still in vogue among us. But the only explanations current concerning the human complex seem to be socio-biological or neo-Darwinist. Reasons for this oversight are not hard to find. Part of our pride in ourselves comes from our having outstripped our ancestors in our knowledge of the cosmos. Our competitiveness insists that the Einsteinian theory superseded the Newtonian, and the Newtonian superseded the Ptolemaic. We would do much better to suppose that the Ptolemaic system provides us with an adequate account of the universe *geocentrically considered*; the Newtonian provides the heliocentric account; and the Einsteinian the relativist account. We need all these accounts but the geocentric most of all, because this is the one which tells us most of how we ourselves are shaped.

But even if we had retained a lively picture of the geocentric cosmos, would we, then, have infallibly identified the forms of that cosmos with those of the human body? Not, I think, if we were empiricists of the Enlightenment. Even though all the data necessary to these identifications are empirical, and the method is a form of morphological analysis, even so modern empiricism could not entertain these identifications. In the first place they are not quantifiable in the requisite manner. The determination of the identity between ratios in two

different dimensions, the astronomical and the zoological in this case, is not a matter of measurement. No imaginable meter could ever compute it. Secondly, the modern empiricist will argue that no physical explanation has yet been offered of how exactly the movements of the geocentric cosmos come to form the human body after their own pattern or vice versa. No evidence has been advanced even to indicate such a causal link. The identifications turn, in fact, upon an absurd and antiquated aetiology by which cause is to effect as original to image. The human body images the stars and planets or the other way round. But in modern empiricism cause and effect are merely events bound to each other more or less invariably.

These objections have some weight but they are not conclusive. There is nothing unscientific about the notion that certain physical features of the human being parallel features of the planets and stars viewed geocentrically. We can easily imagine data which would confirm or contradict such an hypothesis. If we were to find life forms elsewhere in space which were more or less identical to the human on planets utterly unlike our own macrocosmically, or if we were to find life on planets like our own but no life forms like ours in these respects, either of these discoveries would contradict the hypothesis developed in this essay. But until that time we must, I think, admit most of the claims of this essay into the ranks of scientifically sound empirical hypotheses.

A low rank, but at least it is respectable by the stern standards of modern empiricism. For the ancients, of course, these identifications of cosmic with human formations were much more than mere so-far-untestable possibilities. They were the observable facts which grounded their understanding. It is just here that we can examine more closely the differences between our empiricism and theirs. The ancients admitted many more analogies than we do and founded their understanding on them. Neither we nor the ancients have moved beyond the observable data. So how are we to judge between these two empiricisms?