Assuredly all the gods are august and beautiful in a beauty beyond our speech. And what makes them so? Intellect; and especially Intellect operating within them (the divine sun and stars) to visibility.

Plotinus: Tractate on Intellectual Beauty, V, 8.

Russell H.W.P. 319

I do not doubt that the orbs and the systems of orbs play their swift sports through the air on purpose.

Walt Whitman: Assurances.

Where now, our wise modern men relate,
Revolves a ball of flame without a soul,
Once Helios in tranquil pomp of state
Drove o'er the sky his chariot of gold

Schiller: The Gods of Greece.

Wardell p. 106

Heaven looks from the angle from which my people look, Heaven hears what my people hear.

Mencius: V A. 5.

C.P 116

To know the actions of Heaven is to be Heaven and alive.

Chuang Chow: VI.

CP 190

'What,' it will be questioned, 'when the sun rises, do you not see a round disc of fire somewhat like a guinea?' 'O no, no, I see an innumerable company of the heavenly host crying, "Holy, Holy, Holy is the Lord God Almighty"'.

Blake: Descriptive Catalogue.

OBQ

Vergils 844

The stars are not pulled this way & that by mechanical forces; theirs is a free motion. They go their way, as the ancients said, like the blessed gods.

Hegel: Werke (1842) Bd VII, I, p.97.

Eddington NPW 187

It was his wisdom made you need the Sun .... Prize it now you have it, at that rate, & you shall be a grateful creature: Nay, you shall be a Divine & Heavenly person. For they in Heaven do prize blessings when they have them. They in Earth when they have them prize them not, they in Hell prize them when they have them not.

Traherne: Centuries of Meditations I, 46

The true aristocrat is a man who has passed all the relationships & has met the sun, & the sun is with him as a diadem. Caesar was like this. He passed through the great relationships, with ruthlessness, & came to the sun. And he became a sun-man. But he was too unconscious.

D.H. Lawrence: From Century of Volume: Reflections on the Death of a Porcupine

Mod Reading No 6 p 66

Born from the energy of the world's love
Who in your place above,
That keeps the [illegible] & blood & breath air in motion,
And [illegible] sun, planets & all living beings
Without which connects
in the inward parts of the earth would fall [illegible]
And warmth

[illegible] EARTH lives
at the centre looking out, (a, a)
& at the circumference looking in (b b)

[illegible] without qualification true to say that S[illegible] is uninhabited.

~~Inchoate work.~~

One star made infinite would all exclude,
An earth made infinite could never be viewed.
But one being fashioned for the other's sake,
He bounding all, did all most useful make.

The paradoxical social being
~~[illegible]~~ transcend their
limitations in so far as they know
Him.

W. M. Dixon
H.S.

Man is in self-consciousness a principle of ~~growth~~ growing, endless development, whereby the ~~self-consciousness subject~~ individual is always greater than he knows. ~~For example~~ Thus the self-conscious Earth of the previous chapter has almost the element the Solar system, implicitly enamored. For to know Earth is to be where she is Earth in her companions, as Tasker says: — x x x / In the planetary society, Earth grows, not by ~~[illegible]~~ demonstrating ~~[illegible]~~ as ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ Earth, but by ~~becoming~~ asserting them — for they are not be discovered in so far as she inhabits others

CHAPTER IX

THE DISTANT VIEW: ~~STAR~~ SUN

1 Observing myself observing EARTH

~~What am I?~~ ~~A the~~ All depends on range. The observer who stands sufficiently far back from me says I am EARTH. But who is this observer, in reality?

He is a part of myself — a section that I have detached from the main body & sent on ahead, to look back at the rest of me & tell me what ~~I am from~~ from I take over there. I am, then, not one but two: the one who goes on to observe, & the other who stays ~~there it is~~ behind to be observed. But this means that I am ~~only~~ looking at only a part of myself. For all I know, the section which remained behind may be insignificant compared with the one that came away. (To find out, of course, ~~the advance section could, in turn,~~ I could detach another portion of the central body & send it even further ahead, to look back & report on both sections of myself; but, again, the report would only cover that part of ~~the~~ the subject-matter which remained behind to be reported upon.) It looks, in fact, as if I could never really see myself, because there is always more to me than I can ever know.* It is my nature to be ~~more than I know myself to be.~~ parts unconscious of myself. Doubtless I may, by ~~getting~~ getting further & further ~~discovered~~ from myself, get nearer & nearer to the ~~whole~~ truth about myself, but I can never arrive.) It was Terence who wrote:

I am already more than Earth

When I see myself ~~to be~~ as EARTH. ~~That is to say: I am in my EARTH region looking towards the centre of the other regions. Now who & what is this me that looks inwards? observing me?~~ An invisible and intangible spirit? A disembodied eye? A lay figure, or myth, or mere logical construction? I think not: the one half of me is, I believe, as real & as concrete as the other. What concrete ~~objects~~ existences, then, are in a position to observe me as EARTH? I am and the Sun, & the Planets. ~~These I am.~~ When I realise myself as EARTH, I am already, unconsciously, her companions. I observe the Sun as Sun because I am in his Sun region; he observes me as EARTH, because he is in my EARTH region; I observe myself as EARTH because I take up the Sun's point of view; I see myself as he sees me, & so, to that extent, become him. Similarly with ~~the~~ each Planet — I put myself in ~~their~~ its places, & to see myself.* ~~as their fellow-Planet, & so doing, I~~ This it turns out that, when I contemplate myself as EARTH I am really much more than EARTH. I am the Solar System. As Descartes puts it: "the idea of the sun will be the sun itself existing in the mind."[x]

[x] ~~Reply to Objections~~ Philosophical Works (trans. E.S. Haldane & G.R.T. Ross), ii, p.10. Descartes, it is true, goes on (mistakenly, as I believe) to speak of another, more perfect mode of the sun's being, namely "in the sky".

Whitehead Sc r MW 92 Europa XXIV

* It is noteworthy that the appearance of the Earth, ~~& other planets~~ the Sun, etc., from other planets is of sufficient popular interest for the magazine LIFE to devote an article, with elaborate coloured illustrations, to the subject. Millions of people enjoy the views from Swindon: this is not without qualification true to say that Sun is uninhabited.

He, from his small particular orbit flies
With blest outstretching! From himself he flies,
Stands in the sun, & with no partial gaze
Views all creation ....
Coleridge: Religious Musings

~~Observer~~ O' observes me at x but leaves O' out of the picture. O'' corrects this ~~too~~ but leaves O'' out, & so on indefinitely.

* A point which has been ~~discussed~~ discussed in the books of J.W. Dunne. See, for example, The Serial Universe, p 32ff.

Who is in a position to appreciate EARTH as such?

The other members of the Solar System.

EARTH, Sun, & Saturn overlap in such a way that the centre of EARTH's region coincides with the circumference of the others' regions, & ~~EARTH's~~ the circumference of EARTH's region coincides with the centres of theirs. EARTH lies at the centre looking out, ~~at~~ (a, a) & at the circumference looking in (b b)

This self-transcendence is not peculiar to my EARTH level, ~~or to any level of myself~~. For instance, when I am addressing a number of people, I am self-conscious: I am divided between speaker & audience, I borrow their ears & eyes.

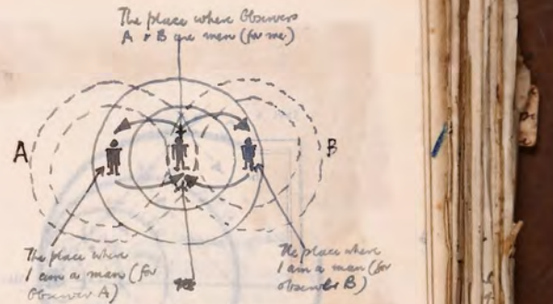
Common sense points out that ~~but~~ when the audience has gone & I am left alone, I am still self-conscious (though perhaps less so). Whose senses am I using now to observe myself as a man? Do ~~the~~ walls really have ears, & are there in the ceiling eyes for my use? If not, if (in fact) I can know myself with the ears & eyes of imaginary observers, or without any external aid whatever, then there is no need to impute powers of observation to things around me — except where such powers ~~thing~~ are obviously present. In particular, there is no need to impute them to the Sun & the rest of the Planets.

If I were to subside into the unself-consciousness of the animal every time I was alone, life would be an odd business. I am a social creature — all the time. I owe my manhood to the observations of men, but to no particular set of observers & to no particular lines of observation: the only condition is that there shall be at some time some observers of my own kind whose point of view I can take up, in order to ~~to~~ recognise myself as belonging to the same kind. I am well able to supply the continuity their awareness of me lacks. So it is at every higher level of myself. For awareness of myself as MAN, I need other Species, of myself as LIFE, other 'Spheres', of myself as EARTH, other members of the Solar System. To be conscious of my EARTH-level is to become the Solar System. Thus each ~~level~~ order contains the seeds ~~the contradictions~~ of the ~~to~~ next: ~~by which it is superseded & the next level takes over~~: a study of the lower level reveals the existence of, & the necessity for, the higher level. ~~In a sense~~, the observer does not simply pass on to the remoter region ~~he is driven~~ & the wider view: he is driven onwards & outwards by the contradictions & incompleteness of the object he is studying. He is forced to go on from the region where I appear as EARTH, to the region where I appear as ~~am~~ the Solar System. "Neither things nor thoughts can be treated as simply self-identical ~~or independent, but parts of a whole, or steps~~ in a process, & as such they carry us beyond themselves, the moment we clearly understand them."*

Inge Eng. Myst. 144

2. The Sun as an organ of my life. "The body of a man," says the mystic Böhme, "is the visible world." — & this is true in a very practical sense. Thus I need the Sun. Lacking it, my incompleteness as a physical object is even more obvious than my incompleteness as a self-conscious subject: I need the Sun to make me whole.+ I must hitch my wagon to a Star: till I do so there is neither wagon nor wagoner.

Consider a cell in my hand. How is this little body sustained? It lives on me the man, on my life's blood. And the man feeds on MAN: it is his H'S



I can only realise my manhood by viewing the centre from the region where I am a man.

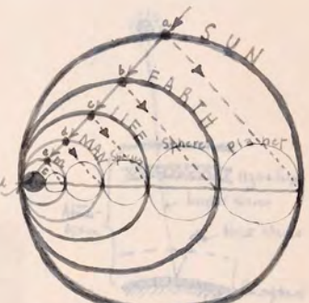
I can only realise each aspect of myself by assuming the position which brings out the aspect.

I see myself as EARTH by putting myself in the place of the Sun & the Planets.

* Edward Caird, Hegel, p 137.

+ ~~So any~~ similar organs do make sense without ~~those of~~ the female, ~~opposite sex~~, as the brain does not make sense without MAN, or his digestive apparatus without LIFE, or his muscular-skeletal apparatus without EARTH, so his eye (to mention only a direct & obvious case) does not make sense without the SUN.

body that I find on my dinner plate — substances that ~~MAN~~ man has taken in, digested in a hundred organs & ~~made a true part of himself~~ absorbed, incorporated. ~~And MAN~~ man feeds on LIFE, on the plants & animals which are organs of LIFE's body. LIFE feeds on EARTH: EARTH's carbon dioxide, & water, & oxygen, nitrogen, & many other substances, together with the radiation that EARTH has 'digested' & so ~~incorporated~~ made her own, go to ~~make up~~ compose the meal. Finally, EARTH feeds on the Sun: her material, was derived in the beginning from the Sun, & ever since, she has been unceasingly conditioned by the ~~energy~~ radiation that the Sun pours into her. The ~~bulk of the energy that goes to the maintenance of the~~ vital planetary processes — means of life — winds, ocean currents, rain, rivers, hydro-electric plants, as well as that most important of ~~all~~ solar energies the green leaf — all are kept going by solar radiation. Directly & indirectly, the Sun is the source of all terrestial energy.



The process of 'digestion' in the SUN, from the point of view of a cell in man. At each stage a, b, c, d, e, there is (i) 'feeding' on the higher whole (●) (ii) breaking-up ~~analysis~~ of the 'food', with rejection of 'waste' (▲) & (iii) the 'feeding' of the part or organ (●).

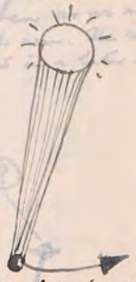
In effect, then, the cell in my hand is feeding on the Sun. Presently I shall will sit down to a Sun-meal — because it is impossible to eat anything else. ~~Let me~~ ~~Or, to put it differently,~~ ~~That is to say~~, let me consider briefly the preparation of this meal. Let me glance at a typical sequence in the physiological processes of my great body.+

+ The basic idea is vividly expressed in the ancient Egyptian sun-disc, a winged disc, whose rays end in hands, & in the famous 'Hymn to the Aton' composed, perhaps, by the Pharaoh Akhnaton himself.

The story begins in the Sun's interior, where the temperature is many millions of degrees. It is believed that matter is being built up here, that hydrogen atoms are combining in fours to become helium atoms, & possibly higher elements also are being synthesized.+ At any rate great energy, atomic in origin, is set free. This energy is 'processed' by several Sun-layers (including that known as the reversing layer, which absorbs light of certain wavelengths) before setting out on its ninety-three million mile journey to EARTH.

+ Alternatively, solar radiation may be produced by the annihilation of matter in the Sun's interior. See Jeans: Mysterious Universe, p. 88 ff., Eddington: Expanding Universe, p. 54 ff., H. Spencer Jones: Life on Other Worlds, p. 239 ff., for three different views.

(So far as EARTH is ~~concerned~~ directly interested, the Solar radiation is shaped like a pencil or a billiard cue, with EARTH at the small end of it.* This pencil is ~~in fact~~ the 'alimentary canal' of my great body. The fact that it is invisible (yet the source of visibility) hides the fact that I am no more detached from the Sun than my stomach is detached from my mouth: EARTH & Sun are joined ~~as closely as~~ more affectionately than if a ~~metal~~ regulator linked them. ~~It is really an extraordinary arrangement.~~ To ~~describe it in still another set of terms~~ put the matter another way: my domestic economy consists of a blazing kitchen fire, a little round dining table, & between them a corridor in which service proceeds at 186,000 miles a second — & all three are careering through the Universe as a unit.)

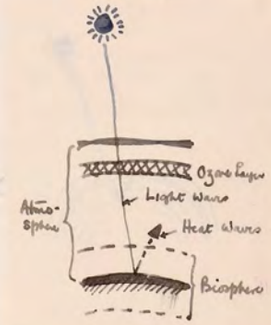


* All this is psychologically important. According to Jung, the sun, furnished with a hanging tube which is the source of the earth's winds, or a penis, is an archetypal idea, a product of the racial unconscious that crops up, for instance, in the insane, & in ancient mythology. One version appears in mediaeval pictures of the Immaculate Conception, where a tube (down which the Holy Ghost flies in the form of a dove) reaches from heaven to beneath Mary's robe. Contributions to Analytical Psychology (London, 1928), pp. 108, 109.

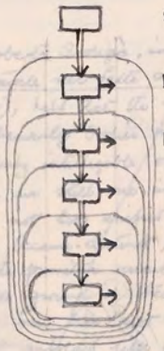
The light that arrives in the region of EARTH, some eight minutes after

C.f. Plato: Symposium 190, where the male is associated with the sun & the female with the earth. & Bachofen (Das Mutterrecht) finds the struggle between the masculine solar principle, with the feminine tellurgic one, enacted in man.

having left the Sun, is already a pre-digested product, but it is still unfit for LIFE's consumption. It must first pass through the Ozone Layer to remove a part of the ultra-violet light, & be filtered ~~by~~ & diffused by the fine dust & water vapour of the Atmosphere. Thus the light which falls on LIFE is not really the Sun's, but EARTH's: sunlight already inside EARTH, lengthened by EARTH, trapped by EARTH & in part turned into heat waves, become – in actuality – EARTH-radiation. ~~light~~. Sun has to become EARTH to become LIFE. LIFE can no more feed direct on the Sun than I can eat handfuls of soil. The digestive sequence is Sun, EARTH, & LIFE. ~~MAN, man, & cell~~.



As EARTH traps solar energy, so (but in a very different fashion) LIFE traps ~~the~~ solar energy that EARTH has made her own. The green leaves of plants absorb light, using its energy in the synthesis of the complex particles ~~hydro-carbon molecules~~ of the body of the cells, of which all living things consist. These ~~molecules~~ particles are, so to speak, accumulators that fix energy in ~~a form~~ such a manner that it can be drawn upon whenever it is wanted.



At each stage something is repeated, something is stored, & something is handed down to the level beneath.

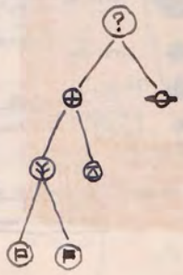
MAN carries the same process one stage further, ~~trapping~~ slicing & processing LIFE's plant tissues – & ~~the~~ animal tissues derived from them – so that he always has ready a stock of prepared food (including coal, timber, cotton, & jute, no less than corn & beef) upon which to draw. ~~At this point~~ Next, man does his part. My exterior organs – larder, kitchen, & dining room – & my interior organs – teeth, salivary glands, stomach, & intestines – prolong the same twin functions: processing or digesting the raw material received from the higher level, & holding a stock of it in readiness for use. ~~Finally, my cells.~~ On this final product my cell feeds. For my cell, this is where ~~feeding~~ assimilation & digestion really begins – all the rest was merely external preparation. But, for my ~~greater or whole~~ solar body, the entire process, from the Sun's centre to the cell in my hand, is ~~one~~ internal: it is a natural, indivisible, indispensable train of physiological events, & to think of ~~any living creature~~ me or all of mine apart from it is to think of a helpless & more or less meaningless fragment.°

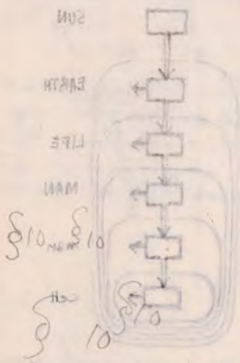
° The practice of saying grace before meals recognises the fact (which our civilisation seems designed to hide) that all things really do come down to us from heaven, from higher aspects of our being. We are mostly ~~incapable of awareness of this~~ as dead to all levels above man as we are alive to those beneath him. The consequences will be noticed in a later chapter.

3 The SUN.

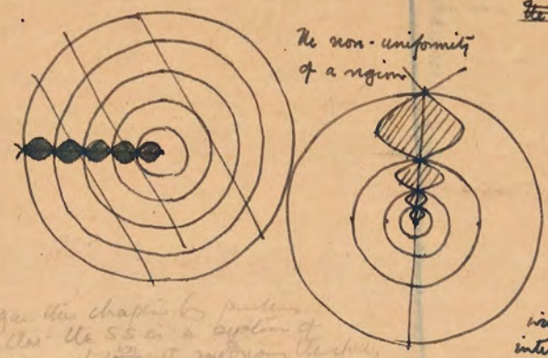
~~3 EARTH as inside the Sun~~

~~C.S. Let it be agreed that~~, for self-consciousness, for life, even for existence, EARTH needs the Sun or the Sun's equivalent. It does not therefore follow that the Sun stands above EARTH in the hierarchy of wholes & parts. Quite evidently, the Sun does not include EARTH, or LIFE, or MAN. It is their extension or organ (in the meaning of Chapter V.) but it does not surround & incorporate EARTH as LIFE surrounds & incorporates MAN, & as MAN surrounds & incorporates a man.





§ The well-known fact that the mass of a planet tends to increase with its distance from the Sun, & then to fall off again, has been ~~linked with the probable~~ cigar-like shape of the original planetary material as it came from the Sun. The Satellite systems of Saturn & Jupiter show a similar tendency, & ~~suggest~~ hint that the history of moons ~~recapitulates~~ may recapitulate the history of their planets.+ I have a supplementary ~~(& non-scientific)~~ suggestion to make. It is that this 'cigar effect' is ~~only~~ a special case of a general law — the law that, while status advances with range in the long run, it fluctuates in the short run. There is ~~strongly some kind of~~ increment from the inner boundary of a region towards the middle of the region, & then ~~some kind of~~ decrease of content or degeneration•: thus, because a ~~picture~~ printing is more impressive at two feet than at two inches, it is not therefore the most impressive rule in the cinema are neither too near nor too far from the screen. more impressive at twenty yards. Or again, between man & MAN is the State, which richly deserves many of the strictures that have ~~recently~~ been passed upon it. Affairs in the Solar System are not in principle different. Mercury is too near the Sun to do him full justice as Sun; Pluto is too near to do him full justice as SUN; Jupiter & Saturn, avoiding their extremes, keeping to the middle of the Sun's Sun-region, are at their planetary ~~best~~ maximum because they find the Sun at his ~~best~~ maximum. To make the most of others is to make the most of oneself. ~~What we make of others — that we are & do~~ is the measure of what we are to ~~the SUN~~ man. If the planets are not exempt from this rule, we may well take it ~~as worth serious~~ seriously.⊗



⊗ In his Theory of the Heavens, Kant adheres to the view that the matter of the planets ~~becomes~~ is more refined the further ~~it~~ they lie from the sun, & he links this 'regional' refinement with "increasing grades of perfection of intellectual faculty." His speculation is fantastic, but it recognizes the ~~principle of~~ connexion between range & status.

+ See Jeans, The Universe Around Us, p. 248.

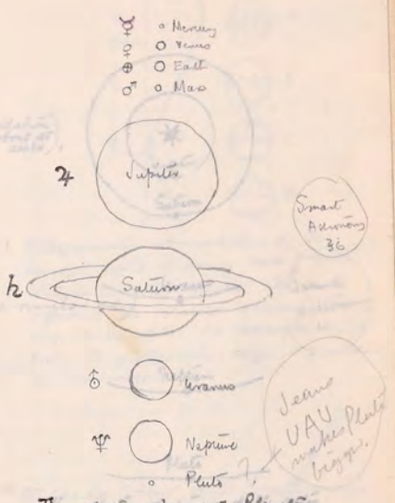
• See Ch. V, §5 where the same law is illustrated in the case of atoms.

~~inside-out — the hot rim has become the cold hub & the cold hub has become the hot rim.~~

Now all depends upon the meaning of the term Sun. First, there is the original & solitary Star; second, there is the same Star, differentiated or developed into a system of Planets ~~or~~ revolving about a nucleus; third, there ~~the~~ is the nucleus which, though it still retains the title of Sun, is now only an organ or member of the totality. To distinguish these meanings sufficiently, I propose to refer to the first two as the SUN (seeing that the whole Star is involved — whether in its primitive or in its grown-up state will be plain from the context) & to the third as the Sun (seeing that it is but a part of the SUN). I do not use the term Solar System for the second meaning, because it does not do justice to the fact that, so far from the SUN having been broken-up into a mere system by the loss of the planetary material, it has been further consolidated.* At any rate, that is the view which I am pushing forward in this chapter.

~~That~~ The unit or individual which, in the hierarchy of wholes & parts, stands above EARTH is, then, the SUN — that great body of which EARTH is an organ. Briefly, what is the structure of this body?

Only one seventh of one per cent of the SUN's mass is in the Planets; the remaining 99 6/7 per cent ~~is~~ remains in the ~~Sun~~ central body. Around this great nucleus, & held in by its gravitational pull, swing the nine Planets ~~& Mercury, Venus, EARTH, Mars, Jupiter, Saturn, Uranus, Neptune, & Pluto, with (between Mars & Jupiter) the Asteroids~~, which are thought to be the fragments of a tenth ~~Planet~~. ~~Not only are their circulations (Planets) tiny compared with their nucleus~~, but the planets are very widely spaced, so that, like the atom, the ~~SUN~~ Sun is practically empty. (If a model were made in which the ~~Sun~~ central body were the size of a beer-barrel, ~~Pluto, the outermost planet, would be two miles away; & the size of a pea~~ EARTH, ~~another pea~~ a bigger spinning top, would circulate at a radius of 93 yards, & the remaining planets, ranging in size from an orange (Jupiter & Saturn) to a speck of dust (the smaller Asteroids), would circulate at distances up to ~~are scattered in the intervening spaces~~ two miles (Pluto) from the centre. All these planets travel round the ~~Sun~~ nucleus in the same direction in nearly circular orbits, but at different speeds & their Mercury's year is 88 of our days, Pluto's about 250 of our years. In addition to the Planets, there are their satellites, the ~~there are~~ comets & meteors, ~~with peculiar orbits~~, dust particles, & even stray atoms, all of them revolving round the ~~Sun~~ new nucleus & therefore to be reckoned members of the SUN.



The relative sizes of the Planets

JUPITER

SATURN

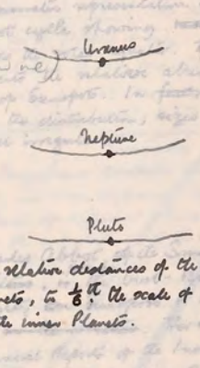
The relative distances of the Planets from the Sun.

* Roberto Ardigò, in Formazione naturale nel fatto dottrina solare, (1877), held that the reciprocal action of heavenly bodies in the Solar System is only intelligible on the theory that they are still one in the Sun. They are not less unified now than before they became distinct, & the evidence of the primitive unarticulated Sun is the ground of their solidarity. The Sun has not broken up, but unfolds like a flower. See Höffding: Modern Philosophers, p. 95, 96.

5

Spencer Jones Rev. Ast. p201

That the Planets were at one time contained in the original SUN is suggested, not only by the fact that they ~~orbit~~ travel round the Sun in the same direction (which is also the direction of the Sun's own rotation about its axis), but also by the fact that their orbits are, with minor exceptions, in practically the same plane, ~~which is~~ the plane of the Sun's own rotation. ~~upon the axis.~~ How or why the Planets left the parent body is a question that does not concern us here: ~~belongs to a later chapter; here~~ it is enough to note that they did so, (in all probability) & that the process (or a similar one) seems to have been continued in respect of the Planets & their moons. As the SUN developed by differentiating into primary nuclear & planetary bodies, so a member of the planetary bodies themselves differentiates into secondary nuclear & planetary bodies. The Planets' moons represent a ~~further~~ second stage of the growing-up of the SUN.



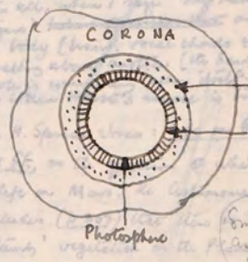
The relative distances of the outer Planets, in $\frac{1}{6}$th the scale of the diagram for the inner Planets.

About the structure of the ~~Sun~~ central body itself a surprising amount is known, considering the natural difficulties of investigation. The heat & the pressure of the interior are ~~thought to be~~ so extreme — ~~of~~ temperatures of many millions ~~of~~ degrees are suggested — that atoms here have lost their circulating Electrons, ~~& exist only in the ionised state.~~ The enormous output of solar energy ~~is believed to be due~~ a by-product of the building up of atoms of Helium out of atoms of Hydrogen, ~~& perhaps also to the synthesis of more complex atoms.~~ ~~However generated, the flood of energy coming~~ proceeds from the core, ~~has to make its way~~ through various cooler & more tenuous upper strata of incandescent gases, ~~&~~ becomes transformed in the process. There are distinguished the Photosphere, which is the brilliant visible surface & the source of the Sun's continuous spectrum, the Reversing Layer which, absorbing light of various wave-lengths as it comes from the Photosphere, reveals its own constitution & the spectroscopic, & the much more extensive Chromosphere, which consists ~~of~~ mainly of the light gases Hydrogen & Helium, & of Calcium. Finally, deepest, coolest, & most rarified of all, is the Corona, which is visible only during a total solar Eclipse.

See, e.g. ~~by~~ Eddington: Stars & Atoms.

*: Some authorities suggest that the solar energy is derived from the annihilation of atoms. ~~but this view has lost ground.~~

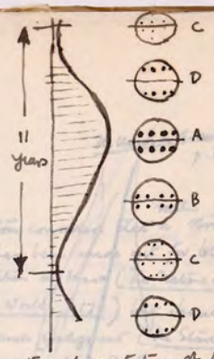
The Corona as seen during a total eclipse. ~~It is unique.~~



The solar layers — not to scale.

There is much disagreement about what is actually going on in the core of the Sun, ~~but at least it is certain that as there is about events deep in this Planet,~~ but at least it is certain that there is a central production of enormous energy, with radial transmission through various strata that digest or condition it before it starts off on its journey to the Planets. That this process is accompanied by ~~volcanic & complex large-scale activity~~ large-scale movements is shown by the behaviour of the Photosphere's ever-changing granulations,

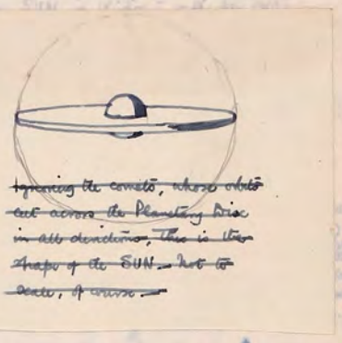
(consists, probably, of hotter material rising from lower levels), faculae (or torch-like hot clouds), & Sunspots. ~~These mysterious objects tend to start near the Solar poles & work towards the equator~~ The last appear to be depressions of relatively low temperature, ~~& as much as 1500~~ some hundreds of miles deep. They grow in clusters, ~~& after a time disappear~~ each of which goes through a fairly definite ~~constant~~ life-history, ~~& the whole~~ the whole system of sunspots goes through an Eleven-year cycle. As this cycle progresses, the spots tend to move ~~from the solar poles~~ towards the solar equator; the start of a fresh cycle is marked by a new outbreak in higher latitudes. ~~As to~~ Regarding the origin of sunspots little is known: they are as a rule ~~attributed to~~ interpreted as convection currents of gases beneath the Photosphere.+



Diagrammatic representation of the Sunspot cycle showing ~~mov~~ progress towards the solar equator. The curve represents the relative abundance & size of sunspots. In ~~fact the~~ actual fact, the distribution, sizes, & periodicity are all irregular.

+ Dr. Charles Abbot ~~of~~ the Smithsonian Institution, is perhaps the best-known authority on Sunspots & their terrestrial effects. ~~on the weather~~. For details, see the Annual Reports of the Institute, also E. Huntington: Earth & Sun. Abbot's view that "major changes in the weather are due to short period changes in the sun" is not accepted, however, by most meteorologists.

Secondly, then, in briefest outline, is the structure of this new order of individual, the SUN. To one sort of observer, of course, the SUN does not exist as a whole: there is only the Sun, with a few points of light revolving about it at great distances. But to an observer whose time-grasp ~~was~~ is enlarged to ~~keep pace with~~ match his grasp of space, the points ~~would~~ appear as rings, just as the ignited end of a piece of string, when whirled round & round, becomes a circle of flame. If ~~now the~~ such an observer, ~~seeing~~ having seen (& truly seen) the ~~earlier~~ Planets no longer as globes but as rings, goes on to realize that each planetary ring is joined to the centre by a disc of solar energy, he will appreciate the wholeness of his object. For him the SUN will be a bright nucleus, ~~sending out a~~ propagating a diminishing flood of energy ~~that diminishes as it spreads~~ throughout the sphere ~~of~~ which is bisected by the Planetary Disc. To this disc are added, at various angles, the elliptical orbits of the Comets. The whole would appear very much like one of Bohr's models of a complex atom.



~~Ignoring the comets, which orbit cut across the Planetary Disc in all directions, this is the shape of the SUN — but to scale, of course.~~

And this whole lives as a whole. EARTH is not the living organ of a dead body, but derives her life from the SUN. What she does the SUN does.*

* Thus ~~as~~ a scientist on another star (or rather ~~another~~ star-dwelling, for organs such as scientist) listening in to ~~the~~ the SUN & happening to hear Gustav Holst's The Planets, would ~~be~~ entirely justified in referring ~~this~~ the music to the SUN as a whole — describing his organs as I might describe mine. After all, when I say 'my hand has five fingers' ~~this not mean that~~ one part of my body (brain, vocal chords etc) is not saying something about another (the hand), but ~~the~~ the whole is commenting upon itself. ~~Therefore to~~ By the same token Holst's music is truly solar.

4 The life of the SUN.

In what sense, & in what manner, does the SUN live?

First, there arises the question of whether any of the Planets, besides EARTH, supports life.+ Mars is ~~a~~ rather cold, ~~Planet~~, & its rare atmosphere contains little moisture & little, if any, oxygen. Nevertheless conditions are not such as to rule out all possibility of vegetable life.

+ See H. Spencer Jones: Life on Other Worlds, p. 178 ff., on the question of whether there is life on Mars. The Astronomer Royal concludes (p. 207) that there is 'almost certainly' vegetation on the Planet. He considers (p. 170) that life has probably not yet appeared on Venus, but may do so as conditions become more favourable.

We are in a better position ~~now~~ to estimate the probabilities than when Kant, in his Theorie des Himmels (1755), with some confidence gave details of the rational beings who inhabit the Planets of life of the SUN.

As for the famous 'canals' of Mars, these have been generally disregarded by most astronomers as subjective illusions. Recently, however, Lyot & Gentili (using composite photographs combining hundreds of plates, as well as visual observation) have found lines which closely resemble the 'canals' of earlier observers.X

The bluish-green areas of the Planet turn brown in the Martian autumn, & may very well indicate some forms of vegetation. On this question there is no certainty, ~~If there is~~ Any life on Mars that may exist is probably dying slowly from lack of water. Mars has been called the Planet of spent life, & Venus ~~is perhaps~~ the Planet of devouring life. It is shielded by a permanent cloud-layer which moderates the otherwise high daytime temperatures, & makes inspection of the surface impossible. Again, there is no spectroscopic evidence of free oxygen in the atmosphere, though there ~~is~~ ~~is~~ carbon dioxide in abundance. On the whole, authorities are ~~less~~ more doubtful about the probability of life upon Venus than upon Mars. ~~Though it is generally recognised that~~ If the sun is unusually cool, conditions are, on Venus, becoming more & more favourable, as they become less so upon Mars. ~~This view has recently lost ground~~ It seems most likely, however, that the sun's radiation (while it remains a main-sequence star) is practically constant, in which case life almost certainly does not travel ~~outwards~~ (as some suppose) inwards along the planetary chain.* It may be at any rate, ~~It is not absurd, then,~~ to suppose that life characterises that belt of the Planetary Disc which has EARTH at its centre-line, & is bounded by Mars on the outer edge & by Venus on the inner edge. Conceivably, VENUS, & EARTH are all living planets, alike after three very different but complementary fashions. MARS, ~~a very old Planet at death's door, while VENUS is a very young Planet only just come to life, & EARTH, so advanced of her prime~~ — the three forming one living solar organ. ~~Conceivably, also, this belt of life has gradually moved, in the same order, from the outer edge of the disc to its present position, & that the last region of solar life will be the innermost Planet Mercury.~~ Another possibility is that ~~life as~~ EARTH-life — which is a question of carbon & water — is only one ~~species of life~~ order of vitality, & others ~~species~~ quite different orders, involving other elements, exist elsewhere. However ~~unlikely such possibilities~~ fantastic such guesses may seem, I doubt whether the truth, were it known, would appear less fantastic. ~~At any rate it is safe to say that~~ Eddington (to be on the safe side), apart from EARTH & her two immediate neighbours, the rest of the SUN is, considered piecemeal, not at all likely to be alive as EARTH is alive, while of these three Planets ~~can~~ only EARTH lives for certain.

Is her life sufficient, so to speak, to vivify the whole inanimate mass?

This question will not do. It assumes that EARTH is alive in her own right. To pick out from the Planetary Disc one belt (though no doubt the most interesting belt) & say of it: here, & here alone, are the chemical & the thermal conditions of life, & to reject all the rest, however essential for the maintenance of these peculiar local conditions, as dead, is quite arbitrary. It is the error, which I have already come up against (at MAN-level & EARTH-level particularly) of imagining that a

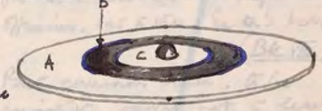
Eddington considers that a 'rather strong case' has been made out for the presence of vegetation on Mars (The Nature of the Physical World, p.178) but Jeans prefers to suspend judgment (The Stars in their Courses, p.60.) See also Lowell's Mars as the Abode of Life: his interpretation of the Martian markings as canals is not nowadays accepted.

X Jeans: Universe Around Us (1943), p.270.

* Cf. Hughes: ~~doctrine~~ speculation that there is probably no more difference between the inhabitants of different planets than between the inhabitants of the Earth. He adds: "There are in the earth men of cold temperament who would thrive on Saturn, which is the furthest planet from the sun, & there are other spirits warm & ardent enough to live in Venus." (Cosmotheoros, seu de Terris Coelestibus.)

Universe Around Us (1943) p.269, 275.

* Universe Around Us. p.275.



The SUN is divided into an outer 'dead' region A, a 'living' region B, & an inner 'dead' region C. Roughly, this corresponds to the division of EARTH into Atmosphere (A), Biosphere (B), & Litho-Barysphere C.

• Ward (Realm of Ends, p.184) is inclined to take this view. My own opinion is that, (while not ruling out such possibilities) we should ~~bring to bear our world-picture~~ ~~constituents out of known bricks~~ build our world-picture out of known bricks make quite sure that the known ~~facts~~ will not ~~now~~ answer, ~~the phenomena~~, before ~~dragging~~ drawing in the unknown.

• Bergson — ~~he can only be guessing~~ it can only be a wild guess, of course — goes so far as to write: 'it is probable that life animates all the planets revolving round all the stars', but the life is of many sorts. (Morality & Religion, p.219.) There are, ~~however~~ it is true, a number of mysteries regarding the Planets. Jupiter, for instance, has a very complex atmosphere, with numerous coloured belts & spots which vary in relation to ~~each~~ one another. It is not inconceivable that such a Planet is living as a whole, but its ~~such~~ life must (if it exists) be so different from the terrestrial ~~life~~ kind as to make the word 'life' ~~a misnomer, misleading~~ inapplicable. (Jeans L.F.W.)

Elsewhere he regards it as probable that life goes on in other planets, in forms of which we have no idea. (Creative Evolution, p.269.)

That matter which, at the sun's centre, is ~~what enough~~ so hot that a pin's-head of it would kill ~~me~~ the human me if I ~~came~~ were within a hundred miles of it, is ~~nevertheless~~ ~~in the be or~~ in its proper place a more necessary organ of my life than is my right hand.

part of it at a range of 100 miles

living whole, when divided, is still alive. Subtly it is clear now that life is ~~not~~ simply a matter of enough water, a source of ~~oxygen~~ carbon, + various other elements, & a temperature-range such as EARTH can provide. Such immediate conditions are probably amongst those that life must have, but they are only a small & rather arbitrary selection from the ~~total~~ conditions of life.+ The great range of extremely high temperatures in the various layers of the Sun, the intense cold, near to absolute zero, of the interplanetary space, the low temperatures of EARTH's upper Atmosphere, are all as necessary to life — are all as truly the temperatures of life — as the temperature of the ocean & the lower air. Ordinarily, I consider I am well if my body has a temperature of ~~about~~ 98.4° F — a degree more or less than this means I am ill. But I am thinking only of the living core of my body. The truth is that, to enjoy normal health, I must enjoy it throughout my whole solar body, every region & organ of which has its proper or 'healthy' temperature, from ~~intensest cold to fiercest heat~~ millions of degrees to nearly absolute zero. And what is true of thermal conditions is true of conditions generally. The bulk, the chemical composition, the motion, the mass, of every part of the SUN upon which my life directly or indirectly depends are my physical characteristics, lacking which I would not be alive. Ultimately, they are biological characteristics. So this in such a universe it takes such a body so thing (however extravagant & cumbrous it may ~~seem~~ at first sight seem to be) to live. no other analogy, no other physiology, will work. The SUN's life, as a practical, going concern, can no more be a question of terrestrial conditions alone than the life of the human body can be a question of conditions in the cortex alone. ~~This is~~ Emphatically ~~to so~~ the situation is not that the SUN somehow achieves just here on EARTH, in the midst of hopelessly unfavourable conditions. ~~Everywhere else~~ ~~is~~ ~~not~~ is the SUN's ~~a~~ kind of Cause, of which we are the effect, or a kind of Beast, of which we are ~~the~~ home ~~environment~~ for the living. ~~but that~~ When ~~a star~~ a very big creation lives, this is the way it lives. If the problem were put to me: design a self-supporting, living, intelligent individual, equipped for a ~~fairly~~ long & successful career in the interstellar spaces, & time & space & matter were all ~~available~~ made over to me, without stint, what important improvements upon the present arrangement could I offer? Merely to put the question is enough to show how silly are my common-sense objections to a living SUN. My protest that so tiny a living creature as EARTH, ~~parasite, clinging~~ flourishing upon so vast a trunk, is more like a living parasite ~~or guest~~ than ~~an appendage~~ a flowering of the whole, becomes meaningless.

In answer to the question: what is a man, & what sort of life does he lead? it would not be enough to give an account of haemoglobin, or Enzymes, or glandular secretion. Even the chemist admits that the entire chemical thing would

+ ~~So here~~ Cf. St Paul's doctrine of different sorts of bodies — human & animal, celestial & terrestrial, differing from one another in 'glory.' (1 Corinthians XV, 39, 40)

× Jeans: Universe Around Us (1943) p 196.

The common-sense view has never been better put than in Paradise Lost:

The Earth,
Though, in comparison of Heaven, so small,
Nor glistering, may of solid good contain
More plenty than the Sun that barren shines,
Whose virtue on itself works no effect,
But in the fruitful Earth; there first received,
His beams, unactive else, their vigour find.
Yet not to Earth are those bright luminaries
Officious, but to thee, Earth's habitant.
(Bk VIII, 91.)

But common sense, to be consistent, ought not to leave the matter here: the 'bright luminaries' are not officious to the ~~earth~~ man but he ~~up~~ calls, ~~not to the whole sun but the~~ ~~to me~~ this analytical ~~approach~~ view is all right, provided it is recognized as a half-truth. The other half is the synthetic view which ~~gives the necessary~~ finds it necessary to work out for more & more body, instead of less & less. now: note, again, a so powerful was the successive advances & retreats of the ice mantle (which affected the evolution of life so profoundly) was due to rhythms of solar energy.
Hull: Pl. of E 109

+ ~~Fortunately~~ Prominent among the scientists who freely admit that analysis is not the only road to truth are the astronomers Jeans, Eddington, & R.A. Sampson. The last writes:

A priest in worship to the Sun-God.
From an ancient Mexican Picture
~~(From Sah~~ (After G. Elliot Smith)

On the many Sun-gods, & the many traces in Christianity of sun-worship, Jung has much to say in his Psychology of the Unconscious, pp. 61. ff.

Even Goethe confessed to a natural inclination to sun-worship (Eckermann: ~~Gespräche~~ Gespräche mit Goethe ~~III, p~~ (1868) III, pp 255, 256.

Webb N.T. 66

Gundel Pl. + Gods. 54

(the father of Experimental Psychology) and Fechner, in neither province was flippant when, in his Comparative Anatomy of Angels (1825) & later in Zend-Avesta, he maintains that the spherical form is the only appropriate one for angels — that is, the living planets & stars. The Sun has no use for the wings the Egyptians gave him, or the hands (one free, the other holding a bow) which an Assyrian obelisk gives him.×

Fechner 35

× See Count Goblet D'Alviella: The Migration of Symbols, p. 26 for an illustration. ~~of~~

Whittick Symbols for Designers 50

⊙ How do I think of myself at man-level? I look, for my significance, to what I am as an adult, rather than to what I am as a baby or a foetus. How should I think of myself at sun-level? Should I look to what I am as a grown-up star rather than as a foetal or undeveloped one? If not, if I ought still to look upon the SUN as though he had not wakened to life + mind, then I ought to look upon myself + other men as aged + deformed foetuses, or overgrown cell-cultures, or ancient molecules, incapable of any Science. Whatever the motives of the star-builder, of the man who sees one aspect of himself in terms of its highest + latest manifestations, + all others in terms of their lowest + earliest manifestations, those motives are not scientific. It is all right, like the seedsman, to deal only in seeds, or, like the florist, to deal only in flowers, though it is better, like the gardener, to deal in both. But to deny some seeds their flowers, + some flowers their seeds, is plain bad business.

What sort of reason is it which tells me that the presence of atoms of lead & carbon & oxygen is relevant, but the conjunction of such atoms in the Mona Lisa is irrelevant, to the understanding of the SUN that holds them all? Do not atoms ~~begin to~~ come into their own in the painting? To find the full meaning of silver ^ gold ^ may I not go to Cellini, as well as to the metallurgist?

the question virtually unanswered.+ Even so, in answer to the question: what is a Star — the only Star of which we know very much? the ^ replies of the astronomer ~~answer~~ & the physicist ~~answer~~ are not enough. They are not nearly enough: in fact (for all their interest & value) they ~~fail~~ are ludicrously inadequate. How odd it is that the technique of science — so productive and in every way admirable, as technique — should so blind me ^ to the facts of science. What is a Star? I enquire, & when I have done reading ~~to~~ a few of the authorities I think ^ that I have, in outline, some notion of the answer. When does it occur to me that, for ~~answer~~ information, I should ~~have gone~~ go, not only to the astronomical ~~section~~ shelf, but also to the biological ~~section~~ shelf of my bookcases, ~~&~~ to every other ~~section~~ shelf as well, & ~~above~~ more than all, to the evidence of my own first-hand experience? Are ~~not~~ the crocus, & the Small Copper butterfly, & the kingfisher, ~~as lively~~ less genuinely — or ~~perhaps~~, more ~~truly~~ genuinely — solar ~~as~~ than the conical atoms of the Photosphere? + Do my hopes & fears throw no light upon the nature of this Star? * Are they of no importance in it? * Agreed that, ~~as a~~ in point of method, it is unscientific (in the narrow sense) to look upon the poetry of Shakespeare, or mediaeval Italian history, or the Stock Exchange, or modern pornography, or even astronomy + astrophysics, as stellar phenomena which ~~, as such, are so relevant~~ have ~~no more~~ no less ~~bearing~~ bearing upon what a Star is. ~~There~~ Then, say, a spectrograph ~~any no spectrograph has~~ has not a larger science, concerned with more than short-hand description of phenomena? But is ~~science only a method~~ What about the ~~methods results, the~~ broad picture that ^ emerges? ^ Is it unscientific occasionally to wake from that unconsciousness which the disciplines & exigencies of research demand, into the consciousness of concrete fact? Is it unscientific to realize that other ~~facts~~ realms coexist with the ~~fact~~ realm of one's choice, & that reality is no respecter of levels? ~~Is it unscientific to call a man a man~~ ~~rather~~ ~~in a sense~~ ~~not~~ of molecules, ~~or a system~~ and of electrical charges ~~?~~; & if this is unscientific, in the name of Reason ^ not, why should it be unscientific to refuse to pick & choose what peculiarities of a Star shall be reckoned genuinely stellar, & what shall be ~~utterly ignored~~? — I will not say "rules out" ~~because~~ (they are not accorded that dignity) ~~on~~ but utterly ignored?

Is it unscientific to recognize that a man is a many, ^ a bundle of cells ~~a man is a man~~ ~~rather~~ ~~in a sense~~ ~~not~~ of molecules, ~~or a system~~ and of electrical charges ~~?~~; & if this is unscientific, in the name of Reason ^ not, why should it be unscientific to refuse to pick & choose what peculiarities of a Star shall be reckoned genuinely stellar, & what shall be ~~utterly ignored~~? — I will not say "rules out" ~~because~~ (they are not accorded that dignity) ~~on~~ but utterly ignored?

I do not think so poorly of Science. ~~Perhaps also~~ Moreover the number of first-rank Scientists who ~~[illegible]~~ mistake ~~profess~~ the limitations of ~~their work upon desire~~ science for limitations ~~of the reality~~ ~~knowledge~~ is not so large as one might suspect.+ But there is no doubt about the popular impression, no doubt either ~~that science is~~ about who is indirectly & directly responsible for it. Scientists have done much to foster & little to correct their ~~twentieth-century~~ superstition, this ~~barbarous~~ & irrational belief that the world is dead, ~~& that the higher~~ this barbarous opinion — the compulsion is the more powerful for being unconscious — 'higher' the ~~aspect the~~ manipulation the less it has to do with the whole from which it sprang. The only explanation is that modern man, wants ^ to believe in a dead world, & with fanatical unreason will

+ Milton's conception of the relation of man to stars is worth noting: "When universal learning has once completed its cycle, the spirit of man, no longer confined within this dark prison-house, will reach out far & wide, till it fills the whole world & the space far beyond with the expansion of its divine greatness. ..... He will indeed seem to be one whose rule & dominion the stars obey, to whose command earth & sea hearken, & whom winds & tempests serve; to whom, lastly, Mother Nature herself has surrendered, as if indeed some god had abdicated the throne of the world & entrusted its rights, laws, & administration to him as governor." Prolusiones Oratoriae.

* 'It is true' says Thoreau, ~~in Walden~~ '~~I~~ ~~have~~ never associated the sun materially in his rising, but, doubt not, it was of the last importance only to be present at it.' (Walden: 'Economy') p16

+ To take only one example, there is a plausible theory that some astronomical shock tilted the plane of the ecliptic away from the plane of the equator in the Mesozoic age, thus creating the seasons & changing utterly the whole course of evolution. Wings, useful for migration, have enhanced survival value. In other words, the kingfisher is astronomical, in the sense that you will not explain him till you relate him as such. Wells Con. of T. 51

Again, it is possible that the successive advances & retreats of the ice mantle (which affected the evolution of life so profoundly) was due to rhythms of solar energy. Gill: Ph of E 109

+ ~~Fortunately~~ Prominent among the Scientists who freely admit that analysis is not the only road to truth are the astronomers, Eddington, & R.A. Sampson. The last writes: "this process of dissection (of the Sun) might well give us pause, for how do we know that in the course of it something may not take flight, like the life from a living thing, that we shall not succeed in putting back into it again." (The Sun, p. 4.)

According to J.H. Woodger & Joseph Needham, "a molecule, an atom, or an electron, if it belongs to the spatial hierarchy of a living organism, will be just as much "alive" as a cell." * I say that, by the same token, if EARTH & SUN are living things, every part of them lives. The only reason why we attribute life to some portions & not to others is that we fail to see the whole.

~~the question certainly unanswerable.~~ oppose the idea of a live one. + And science, by killing EARTH & SUN, has more or less unwittingly sided with the forces of blind prejudice.

No doubt there are many parts of this grown-up SUN whose contribution to the life of the whole is obscure. What influence, for example, beyond slight gravitational perturbations, can the comets & the remoter Planets exert upon EARTH & upon LIFE? It may be that here science has much to discover, & that, as tradition holds, the physical effects are considerable. # But whatever other influences may operate or not, there is no doubt about the mental factor: the Planets have played their part in the growth of ~~the solar~~ mind. EARTH, as I have said, lives a social life; she is intensely curious about her neighbours, & this curiosity has been an important factor in her intellectual growth. Whether Mars or Venus ~~have~~ have capable of response to EARTH, or whether any other Planets in the remote past or future have played or will play a more than passive part, I do not know. What is reasonably certain is, first, that, without her organs great & small, near & far, the SUN would not have achieved that level which now he enjoys, & (second) that, in virtue of their continuity on the SUN, ~~the~~ every part, down to the least of the Asteroids, is abundantly alive.

And, oddly enough, the form of the SUN does not seem wholly irrelevant here.

(Turning of attention from view of species & geosphere, ~~from~~ & members of the Solar system)

5 The ~~mind of the SUN~~ solar outlook & the terrestrial

The SUN is a living, ~~self~~ intelligent, self-conscious individual. But his nature is not remote from mine, mysterious, or inaccessible: it is ~~nature~~ an aspect of my own nature. When I am alive to the Stars, ~~to be~~ the I am this living Star, though my human companion sees no change in me. According to him I am still a man, but he is not in a position to say — he cannot see me. * He does not realise that I have the backing of a Star. °

~~Why~~ Common sense has a protest to make at this point. Am I not expanding beyond all reasonable limits the bulk of ~~dead body~~ the space which human life is capable of ~~occupying~~ animating? Already the ~~ponderous~~ dead weight of EARTH has been rescued, & by a species of artificial respiration made to live. Is there no limit to the volume of insensate matter which ~~the~~ humanity ~~mind~~ can feel for & think for? A little mind goes a long way; ~~a little leaven leavens the whole lump — provided the lump is not a mountain.~~ Doubtless After all, the human mind is only human, & limited by many physical factors. Can this little brain, thrown out of gear by the tiniest rise or fall of temperature, by a grain or two of a common drug, or by the ~~slightest concussion,~~ bathe care of the Solar System?

But common sense is quite mistaken. The human brain is not the

The Sun is brainless & inert, at rest ~~[illegible]~~

Other, & mind, ~~[illegible]~~ as aspect of mind

* Needham: Order & Life, p 117.

+ The poets (& they speak for the deeper planes of our being) know better. Thus Victor Hugo, ~~inquiries~~ for whom the ~~whole~~ planets and stars are an amazing & lively society of beings, of all degrees of intelligence & virtue) inquires: "N'as-tu pas des amours pour ceux-ci et des terreurs de ceux-là? N'es-tu pas un peu épris de Vénus? N'es-tu pas très effrayé de Saturne?" (Les Tables Tournantes de Jersey.) The point ~~to remember~~ is that what Hugo feels about Saturn is what he feels as EARTH: his experience is real evidence (so far as it goes) for EARTH's attitude to her colleagues.

For example, it is possible that sunspots are ~~caused by~~ bound up with the pull of the Planets on the Photosphere. And sunspots affect this communication, the weather, & the growth of vegetation. ⊕ The growth of trees in Germany has been shown to be related to the 11 year sunspot cycles (Huntington: Earth & Sun.), & the migration of certain animals may also be linked to Solar disturbance. Here, then, is one possible connection between the 'dead' Planets and ~~life in the SUN~~ LIFE. See Wells, Huxley & Wells: Science of Life. III. p671.)

⊕ A number of plane crashes early in 1946 were at the time attributed to sunspot activity.

Prof. Tchijevsky at Nyhind International Congress of Comparative Pathology, Athens, 1936) states that epidemics of influenza follow the sunspot cycle.

* ~~Thus~~ On the tendency to worship ~~a power~~ step by step ~~to~~ the heavens, from ~~the earth~~ the atmosphere & the weather, to the moon, & thence the sun & the stars, see Jane Harrison Themis, p 390. ← 5 Stages p 30.

* Compare F.H. Bradley: "If the soul is resolved & disappears into that which may notice it, does not the same thing hold precisely with regard to the body? Is it not conceivable that, in the interval when the soul is "candelina," the body also should only be dissolved into candelina which afterwards create it?"

Appearance & Reality, p314.

° And it is only because I have my Star — the SUN — behind me, at my back, that I do, in fact, see my Star-companions. As Browne says: "were it not for darkness & the shadows of the earth, the noblest part of the creation had remained unseen, & the stars in heaven invisible as on the fourth day." (Garden of Cyrus, IV, 27.) ~~This apparently this passage of Browne's which~~ Blanco White's famous sonnet "Night & Death" is a development of Browne's idea. This idea.

Cyrus p.152

equally both

Man's soul (Plotinus teaches) is animal or sensual, human or reasoning, + superhuman: by virtue of the last a man "thinks himself according to the higher intelligence, with which he has become identified. Withdrawing himself no longer as a man, but as one who has become altogether changed, + has transformed himself into the higher region."

Several centuries before Plotinus, the writers of the Book of Enoch ~~[illegible]~~ grasped ~~the~~ things, + expressing them after their own fashion when they ~~made~~ taught that it was the Stars themselves ~~[illegible]~~ — the angelic Watchers of heaven — who taught ~~men~~ humanity the secrets of the heavens: — Having come down to Earth ~~and~~ to cohabit with the daughters of men, ~~who gave birth to~~ the angels begot giants, to whom the angel Azazel made known ~~to them~~ "the metals of the earth + the art of working them..... Baraqijal taught astrology, Kokabel the constellations, Ezeqeel the knowledge of the clouds, Araqiel the signs of the earth, Shamsiel the signs of the sun, + Sariel the course of the moon." + The fallen ~~angels~~ Watchers are accused of having "revealed the eternal secrets which were preserved in heaven, which men were striving to learn," ○ + are ~~so~~ punished accordingly: Archangels "took all the great stars whose privy members were like those of horses, + bound them all hand + foot, + cast them in an abyss of the earth." •

+ VIII, ○ IX, 6, • LXXXVIII, 3. See also Genesis VI, 2.

I say that 'I think'. This is true in the same sense as the statement 'I describe an orbit round the Sun' is true. All depends on what is meant by "I". The only 'I' that thinks EARTH's thoughts & performs EARTH's actions is EARTH's "I" ~~distinct~~ I do not hesitate to use this "I" — & rightly, because it is mine. What I forget is the universal & elastic nature of the 'I': I realize it is not as a mere man that I perform cartwheels in space, but I do not realize that it is not as a mere man that I am aware of this motion. ⊙

organ of solar thought, or the physical basis of mind in the SUN. It is only a small fragment of that basis. Can a disembodied brain perceive & think? And, if the whole man is ~~necessary to~~ (in some way) involved in mental functioning,* so, by the same token, it is the whole MAN, the whole LIFE, the whole EARTH, & the whole SUN. The ~~whole~~ entire Body is the indispensable condition of the feblest sensation & the most rudimentary thought. Of course the ~~human~~ brain itself is little, vulnerable, EARTH-bound — what else should it be? Hence, ~~self~~ independent of ~~for there is no brain in calling~~ Planetary support, self-propelling? This also it is: EARTH ~~is~~ to the brain of the SUN. Of course within this ~~small~~ 'brain' the human brain needs a delicately balanced Environment, just the right stimuli, nourishment, temperature, & so forth ~~that not~~ — ~~but how does common sense support~~ what is this but the parts multiple need of every other part of the whole? It is the very vulnerability of the little human ~~brain~~ nervous system, & its utter dependence upon so many Exterior circumstances, ~~solar organs, that makes it off as solar.~~ ~~It is Only of a Earth~~ (in a manner of speaking) that obliges it to grow to solar dimensions in order ~~of it is~~ to exist at all. Its weakness is its strength. But to single out this one organ & say of it: here is the seat of consciousness, will not do. Each part, bulky or tiny, ~~fiercely~~ hot or ~~fiercely~~ cold, 'dead' or 'alive', makes its contribution & demands the contribution of the others. Nothing less than the SUN's body is the physical counterpart of the SUN's mind.

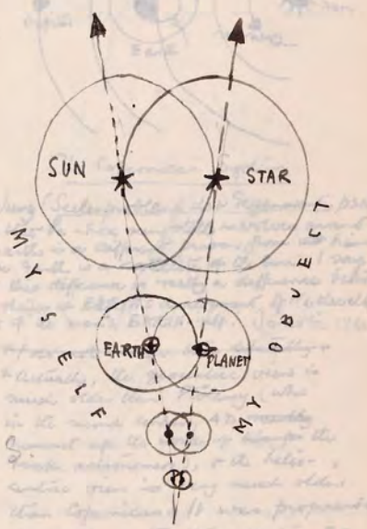
Is this interpretation too flattering to man? I do not think so. What it gives with one hand it takes away with the other. ~~It expands him by~~ True, it compliments ~~him~~ man upon the ~~social~~ solar status of his thinking, but it goes on to explain that the thinking is not his in any ordinary sense. No man can, as man, lay claim to his thoughts. Thinking* belongs to many levels happens in & through him, but the thinker of ~~MAN's thoughts is MAN, of LIFE's LIFE, of SUN's the SUN.~~ When a man ~~then~~ looks at things from the solar point of view he is the SUN. ⊙ There is one mind, ~~of the SUN, but it is many-leveled,~~ of many levels, and, though it is man's nature to identify himself with one level after another, the levels themselves are sharply distinguished.* There is one Psychology of the SUN, ~~but within it as contained~~ though ~~in one sense~~ it embraces EARTH-psychology, & ~~the~~ man's psychology, ~~& the other levels that the SUN embraces.~~ each & all of the rest, it transcends them all.

These are Easy generalizations. Common sense asks for a concrete & particular example, ~~which clearly shows~~ illustrating, for instance, the difference between terrestial & solar mentality.

Such an example is ~~easily given~~ not difficult to find. What is EARTH's ~~the~~ original opinion of the ~~SUN~~ Sun? It is the Ptolemaic opinion that the Sun revolves round us?

* As the Behaviorist Psychologists, & the Gestalt Psychologists, emphasize.

⊙ The sun was regarded by the mystery religions of the Roman Empire as the world-controlling reason — mens mundi et temperatio — & the source of the reason in man & the origin & the final home of his soul. See Franz Cumont: Astrology & Religion among the Greeks & Romans, (Trans. J.B. Baker.)

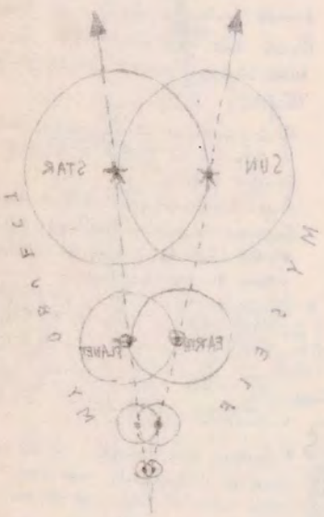


* Anaxagoras, asked what was the object of being born, replied: "To investigate the sun, moon, & heaven." (See Heath: Greek Astronomy, p. XXXIII.) Such uncompromising identification of human ~~nature~~ subjectivity with EARTH's might be found amongst some modern astronomers, but it would hardly be admitted as Fruitfully. Maeterlinck writes: 'We have no other thing to do in this life of ours than to seek to know where we are .... Not to know is merely vexatious; no longer to seek to know is the supreme, the irremediable misfortune, the unpardonable desertion.' (Mountain Paths, p. 174)

⊙ "It is absurd" says Plotinus of the Gnostics, "that they who have bodies like other men & are subject to sensuous desire, & to fear & anger, should form such a high idea of their own capacity, & should assert that they can attain to the intelligible, while they will not concede to the sun, which is far less exposed to passion & disorder & change, a greater wisdom than belongs to us men ...." * On this issue both Plotinus & the Gnostics are right: the solar intelligence is not inaccessible to us men, yet the human is higher than the solar & can attain to it.

* Enneads II, 9, 5.

But I seem to have gone wrong here. In Chapter VIII I came to the conclusion that EARTH consciously steered herself round the Sun. Here I imply that, if she attributes ~~such~~ ability to this sort to anyone, it is to the Sun, since she herself is immobile; ~~day~~ day by day she sees Phoebus drive the car of the Sun through the heavens, keeping (unlike his rash son) to the right course & saving her from harm. Which of these outlooks is true of her? They cannot both be true — unless the latter is the outlook of the primitive, infant EARTH, while the former is the outlook of the grown-up, educated EARTH. And this is, surely, the explanation. But — ~~this~~ here is the important point — the EARTH who is conscious of moving round the Sun as a centre, has attached herself to this new centre & is no longer merely EARTH. She no longer sees things from her own, ~~point of view~~ subjective, point of view. The conclusion, then, is that the Ptolemaic astronomy is the world-picture of an infant Planet, & the Copernican of an adult ~~(or, it would be safer to say, a somewhat more adult)~~ a Planet Planet, who is, in fact, ~~all~~ already solar. For EARTH herself — the original, Earthly EARTH (so to say) — the Sun is at the circumference, & she is at the centre.



about her, that, in effect, EARTH lies ~~inside~~ at the centre of the Sun, at the centre of the solar orbit. Now it is essential to realize that this is not an error*: it is true for EARTH, ~~& for~~ the Ptolemaic astronomers ~~who~~ thought his thoughts. ~~&~~ Nothing that has happened since ~~Ptolemy's~~ their time has made it untrue. The astronomer who gives up this ~~of~~ view for the Copernican, & conceives the EARTH to revolve about the Sun, has not corrected EARTH's view but exchanged it for the Sun's. Galileo & the Inquisition were both right. The quarrel is not between right & wrong, but between the right of one level & the right of the next. EARTH is at the centre of the Sun-circle, & the Sun is at the centre of the EARTH-circle. Curiously enough, the SUN is organized that way. Each rotating member really is at ~~the~~ his centre.

→ ⊹

But is not the Sun really at the centre? Or, put the matter this way: is it not ~~rather, is it not~~ less true to say that ~~instead of~~ Pluto (~~say~~ for instance) is at the centre, than to say the Sun is at the centre? ~~say that the Sun, & not Pluto (for example), is at the centre?~~

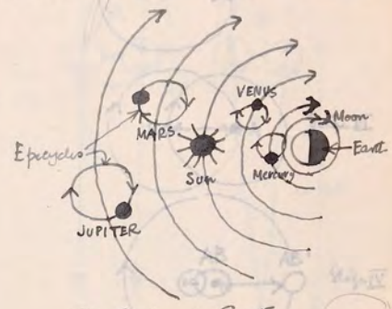
I think there is a sense in which the higher view is the truer view; & yet there is another sense in which the view of ~~each~~ any level is ~~equally true~~ just as true as that of any other. Does not each individual owe his ~~existence~~ being ~~by~~ to being true to his own standpoint? Are EARTH become broadminded enough to see herself as a satellite of the ~~SUN~~ Sun is no longer merely EARTH. Limitation lies at the root of existence, &, in order that there may be a higher view which is ~~in~~ more not ~~in~~ truer than the lower view, the lower view must (so to speak) hold fast by its errors. For they are not errors. It really is nonsense to suggest to EARTH that the Sun does not encircle her. Ptolemy is as necessary as Copernicus.* Only because there is in fact a Ptolemaic cosmology, can there be a Copernican. The psychology of the lower level feeds the ~~ph~~psychology of the higher level. Thus it comes about that the SUN has this extraordinary constitution: it exists by ~~being~~ forming itself inside-out.

Am I not, perhaps, ~~making~~ building too much ~~of~~ upon the peculiarities of heavenly bodies, with their regular motions & axial rotation? What is true at this level may not be true at lower levels, for more erratic individuals. ~~On~~ It is another question to show that ~~the other hand, if~~ the same ~~general~~ laws ~~do~~ hold ~~throughout all~~ at other levels of mind in the SUN?

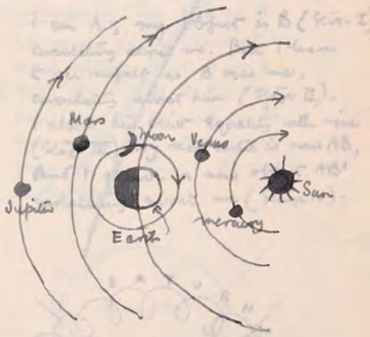
~~Indeed there is~~. How does an individual ~~whatever his level, grow~~ attain to the ~~&~~ next level? First he becomes aware of other individuals circulating about him: he is their centre. Next, he becomes aware of himself as an individual of the same order as the others: he is now centre upon them, observing himself. There are, then, many centres.

Kant Cop-Pr.

* According to Einstein's principle ~~makes clear that~~ it may be said truly of any point that it is at rest.



The Ptolemaic System

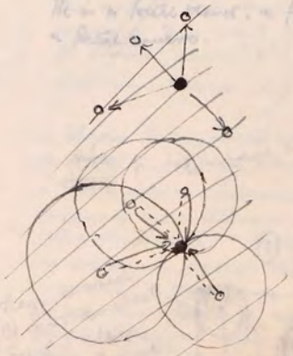


The Copernican System

* Jung (Seelenprobleme der Gegenwart, p301) says that he whose sun still revolves around the earth is a different person from ~~of~~ him whose earth is a satellite of the Sun. I say that this difference is really a difference between two stages of EARTH's development, & the development of the man's EARTH-self. Jacobi 126.

~~* I do not mean this literally.~~

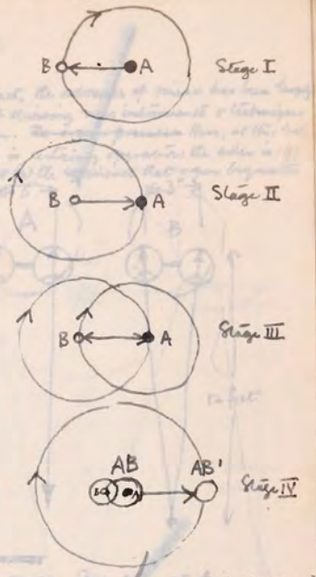
* Actually, the geocentric view is much older than Ptolemy (who in the second century AD ~~merely~~ summed up the work of ~~his~~ the Greek astronomers), & the heliocentric view is very much older than Copernicus. It was proposed as early as the third century BC by Aristarchus of Samos. See Heath: Greek Astronomy, p xlix.



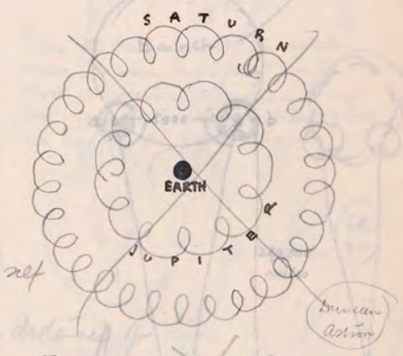
which he proceeds to make his own.
~~How can these rival claims be settled?~~ He looks out once more, but this time he looks further afield & sees individuals of a higher order circulating about him. Again, he puts himself in this position, & discovers himself now to be an individual of these ~~level~~ orders. And so on, to ever higher levels. Such is the scheme at the astronomical & at the human level. There ~~is~~ was a time in any ~~infant's~~ life when humans circulated about ~~him~~ me their centre. Here followed the discovery that ~~he is~~ was the same order of being as they: ~~one~~ I learned to see myself, however dimly, through their eyes. I learned that I was not the only centre, & that I was orbited to other centres as they were orbited to me. ~~Finally~~ Later on, I came to ~~grasp (yet rarely with full awareness) that all these centres & orbits are organized~~ realise the existence of more inclusive units about me — I mean other species — centred upon me & existing for my sake. Gradually I grew to see myself, MAN, as one of these, ~~& not the only centre~~ one of many centres. And so ~~my~~ my Copernican revolutions go on, one after the other, according to ~~the same~~ pattern. The steps are always the same: the ~~view~~ view out, the ~~many~~ views in, the ~~view~~ view further out, the ~~many~~ views in from that further region..... Thus my mind works onwards at the human level, & thus it works onwards at the astronomical levels. ~~It is gradually becoming clear~~ Is it possible that the laws of astronomy are, in the last analysis, 'psychological', & the laws of ~~of~~ psychology are 'astronomical'? ~~I mean~~ Perhaps, after all, ~~that~~ there is not one law of mind & another of matter, but only one set for both. Copernicus, ~~seeing himself~~ leaping out of himself to catch a glimpse of his other self ~~himself~~, from the Sun's point of view, & Copernicus, many years earlier, leaping out of himself to catch a glimpse of his human self ~~himself~~ from his playmates' point of view, is making essentially the same discovery about himself, & giving in essentially the same way, ~~the same individual~~, but at two levels. Copernicus the man puts himself in the other man's place, & sees himself as a man, & so transcends his manhood. Copernicus the EARTH puts himself in the Sun's place: sees himself as EARTH, & so is EARTH no longer. He can never catch up with himself. ~~Copernicus the SUN puts himself in the Star.~~ When he realizes what ~~he is~~ he has already ~~been a~~ is already ~~place, calming to that region of himself where he is a Star.~~ order of being he is, he is more than half way to the next order.

6 Solar eyes

All this would be much more convincing to common sense if the self-same organs were not involved at each level. The SUN maintains & provides for the human instrument in every respect, but fails to improve upon it. That a man is more than a collection of cells is abundantly clear, & not least from the fact that he has his own sense organs, which, like the made of cells, far ~~surpassing~~ those of a cell. One reason, then, (common sense feels) why the SUN ~~is not granted~~ does not seem to deserve a status above MAN's is that he has to make do with MAN's sense organs, ~~seeing that~~ because



I am A, my object is B (Stage I) circulating about me. But I learn to see myself as B sees me, circulating about him (Stage II). I allow his view equality with mine (Stage III). My real centre is now AB, & I observe a new object AB' circulating about me (Stage IV).



The geocentric paths of Saturn and Jupiter.

○ The situation may be phrased differently thus: as the ovum is not merely part of the human body, but that body itself in embryo, so man is not merely part of EARTH, but the her embryo. He has the powers of becoming every order of being — MAN, LIFE, EARTH, & SUN — that contains him. He is a foetal planet, a foetal star, a foetal universe.

(1) The Ptolemaic stage, in which my companion (B) moves about me (A) & (2) the Copernicus stage, in which I & my companion revolve about the sun, and I grow to be an individual of the next grade.

he has none of his own, nor peculiar to his own level. Now there are animals whose sensory equipment is very little improvement upon that of their separate cells, & they are worked upon as colonies rather than as true individuals. Is the SUN in any better case?

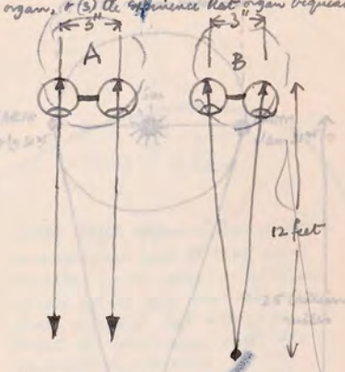
Common sense is unobservant. I have the sensory equipment proper to my grade. Is the 200-inch telescope any the worse as a man-organ because it is designed for the task from the start, & is the ear any the better for being a makeshift arrangement, evolved out of ? The truth is that it is natural that the higher organs should be artificial. ~~Common sense is unobservant. Every level of myself is furnished with its own sense organs, lacking which it is a failure.~~ Consider EARTH's. She is interested in her companions the Sun, the Planets, comets, meteors: these she sees, ~~not as men see them,~~ not as small discs or points of light, but as her equals in status, having their true ranges of sizes & their proper motions & distances. How does EARTH see them in this fashion? Not through a pair of human eyes, three inches apart. Such distant objects need eyes that are ~~not only~~ more elaborate (one of them may cost ~~millions~~ hundreds & thousands & need scores of experts to run it) ~~but much further apart~~ & capable of taking in much more light (the Mount Wilson telescope admits 250,000 as much as the human eye) & in addition they must be much further apart. The more remote the object whose range and size I wish to judge, the more distant my eyes must be, in order that I may obtain two views of it which shall be sufficiently different in direction. To see ~~them~~ a Planet as a body ~~of~~ so many thousand miles in diameter and so many million miles away (& not just as a star in the sky) I need eyes hundreds or thousands of miles apart. The base of the triangle (which is myself) must widen as the apex recedes. It takes a big body to see a big body as big. My universe keeps pace with me. When I was a child the cow really could jump over the moon. Now I have grown up from child-size to EARTH-size, I have a moon to match. ~~no~~

But my EARTH-eyes must always be something less than 8000 miles apart (~~that is~~ EARTH's diameter) & this base is far too small for appreciating even the nearest Star. ~~but this is~~ Naturally, ~~since~~ only a Star ~~can~~ can know a Star. Only ~~a Star~~ the Sun ~~has~~ possesses the sense organs for perceiving ~~its~~ which kind. EARTH is equipped for perceiving only her fellow members of the SUN, but where in the SUN, except on EARTH, shall solar 'eyes' be found? There seems to be no way out of the difficulty. Is common sense right after all: is there no solar sense organ which is peculiar to the solar level?

The truth is that the SUN is magnificently equipped with his own sense organs, by virtue of which he is able to ~~see~~ ~~methods of~~ order Stars to ~~in~~ their proper places & ~~of~~ their proper sizes & motions.* That is to say, I am as well-organised at SUN-level for learning to see the Stars objectively as I am at man-level for learning to see men objectively, or at EARTH-level for learning to see the SUN's members objectively. ~~A~~ My solar self

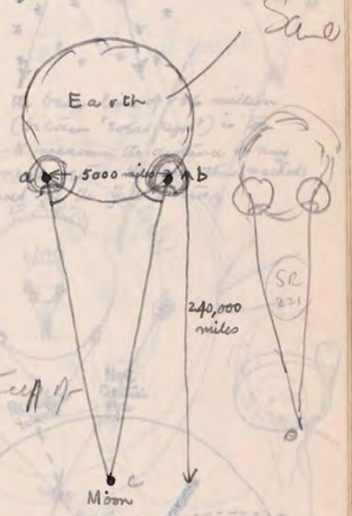
Summer 73

(X) In fact, the advance of science has been largely a question of devising new instruments & techniques of observation. ~~The organ precedes~~ Here, at this level, a kind of Lamarckism is certainly operative: the order is: (1) the want, (2) the organ, & (3) the experience that organ bequeaths.



~~Accommo~~ Convergence. My eyes at A are noting on an object at a great distance; at B on a near object. At B they are pulled out of parallel by the eye muscles, the state of which gives me the clue to the distance of the object.

Jeans VAU2



Parallax. When the EARTH ~~[illegible]~~ two observatories, ~~5000 miles apart~~ simultaneously, she calculates the Moon's distance ~~by measuring~~ from the angles a & b, & the distance apart of the observatories. The 'convergency' of EARTH's eyes in this ~~diagram~~ case is the same as the convergency of a man's eyes in the ~~diagram~~ above (3": 144" :: 5000 miles : 240,000 miles).

* Aldous Huxley invites us to "consider the change in his being which the scientist is able to induce mechanically, by means of his instruments. Equipped with a spectroscope & a sixty-inch reflector an astronomer becomes, so far as eyesight is concerned, a superhuman creature; and, as we should naturally expect, the knowledge possessed by this superhuman creature is very different, both in quality & quantity, from that which can be acquired by a stargazer with commonplace, merely human eyes." Perennial Philosophy p. 2.

provided two observation posts, each giving two distinguishable views of the object, otherwise my vision is not stereoscopic

is taken in by the apparent luminosity & motion of a Star no more & no less than my human self is taken in by the apparent rotation of men when I turn my head, or their contortional shrinking & swelling as they ~~appr~~ recede & approach. At both levels I gradually learn to make allowances for my own motion & for the effects of perspective, & so I obtain what I call a true picture.

To what organs that are not EARTH organs do I owe this better outlook? Only observatory eyes that are many millions of miles apart will do, & ~~but EARTH's diameter is a mere 8000, the~~ even the Sun's diameter is a mere 864,000 miles. Here remains the SUN. The EARTH-ring of the SUN is 186 million miles across, & it is at ~~either~~ the poles of this ring that the solar eyes are situated. (The fact that his eyes are six months apart in time, ~~that they are~~ does not hamper, though it certainly complicates, his seeing.) The one eye provides a slightly different picture of the Stars from the other, & the difference gives the clue to the Stars' distances. It is necessary to the SUN's growth to self-consciousness that he should apprehend not a Solar system, having a diameter sufficient to put his neighbours in their places: to put the smaller crudely, he must grow eyes on ~~stalks~~ stalks, like a crab's.

Common sense ~~perceives that~~ grasps that the astronomer cannot step off the EARTH on to the SUN: he is as EARTH-bound when he is ~~measuring the parallax~~ of a Star as when he is measuring the ~~parallax~~ motion of the Moon ~~about the EARTH~~.

Common sense is mistaken. The astronomer's attitude to ~~this~~ his Planet is quite different in the two instances. In the latter he acknowledges his EARTH-hood, with its limitations. In the former he denies it, & goes to great pains to get rid of it. Recognising that he has set up his observatory on a base as ~~wobbly~~ unsteady as a ~~ship~~ raft in a rough sea, he has to study the motions of this base so that he can discount them from every motion he observes. When he has made full mathematical allowance for EARTH's behaviour, removing ~~every~~ all the 'errors' for which ~~the~~ he is responsible (& they are many), he is in a position to see the world from the SUN's point of view. I do not see the change in him (unless it is happening to me too) but he is now another sort of being, a solar creature, & no longer terrestial. He could not have slipped off EARTH more effectively.* Even ~~his~~ the astronomer's time is sidereal, & ~~the~~ his clock tells him, not where the Sun is, but where the Stars are in the sky.

Jeans SIC 155

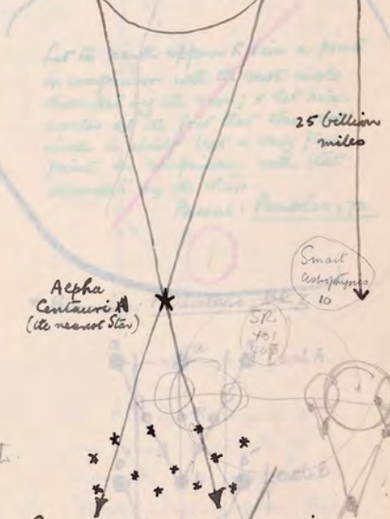
Now is this ~~His~~ change in him ~~is not~~ solely a mental one — it has physical correlates. Here are on EARTH organs such as the coelostat which are not of the EARTH but of the SUN, for the reason that their purpose is precisely to counteract the EARTH's rotation. The astronomer who is using them is a solar astronomer. The gyroscope is another such ~~organ~~ supra-terrestial organ: if it were started with its axis pointed towards a Star it would remain pointed towards that Star, & would appear to the terrestial observer to describe a cone.

SR 64

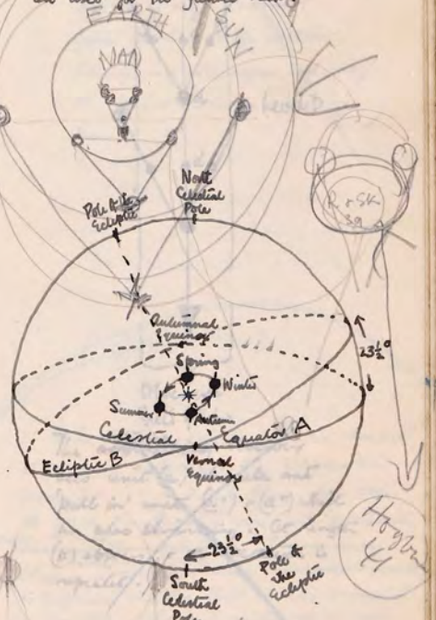
Science News III p116

* Now, when he looks out at the Stars, he does so with a Star's backing: behind him, attached to him, is the giant & stable SUN, & no more whirling fragment of a Planet. Ptolemy said, more truly than he knew "when I search out the massed wheeling circles of the stars, my feet no longer touch the earth".

Heath 104



Even the base line of 186 million miles (between 'solar eyes') is too short to measure the distance of any but near stars. Various other methods are used for the further stars.



The celestial equator is an imaginary line in the sky exactly above the Earth's equator. The ecliptic is an imaginary line in the sky in the plane of the Earth's orbit. The position of a star may be given with reference to A (it is then described from Earth's point of view) or B (it is then described from the SUN's point of view.)

7 The building-up process in the SUN.

C.S. So much for my solar eyes; but the body is more than the eyes. And I confess that this body, as my own greater living body, remains for me vague & unconvincing. In particular, what is the real relationship between the human organism & the solar?

A: Perhaps my observer can help here. Retiring from me, he saw the man shrink, draw in (or so it seemed) his human companions, & turn into MAN. He saw the 'tentacles' of MAN thin to the point of vanishing & the broad coloured patterns of LIFE emerge. He saw these concentrate till they merged in EARTH's tiny sphere. He saw EARTH 'pull' towards her the Sun ~~with~~ and her fellow-Planets as, with them, she dwindled. In the end, 'what was a speck expands into a star.' + from my furthest region, at extreme range, I am the Sun — but a ~~Sun that is not~~ really the SUN, since he has included in himself all his members. In my observer's experience, then, I am a powerful vortex at the centre of his field of vision, drawing all things to myself & engulfing them. Or, if you prefer, I am like a ~~carnivorous animal~~ cannibal ~~that~~ who is always in danger of fading away from lack of nourishment. An insatiable appetite for my fellow-creatures is the result, but unfortunately they are shrinking just as rapidly as I am. It is only by devouring every one of them that I can survive, & even so, the ~~to~~ price of survival is that I turn into a new creature. But while my meal transforms me, ~~but not~~ it does not transform my appetite. I was filled out only for the moment; now I am dwindling again, & I am as hungry for my new colleagues as I was for my old ones. And so my metamorphosis goes on. The characters are different each time, but the plot is the same.

C.S. The story of how a man becomes a Star. No doubt it is true for my observer: if the human turns into the solar, that is the manner of it. But is the story true for me here? If so, what does it mean for me in actual practice?

A. My observer sees me turn into the SUN, but only by an orderly assimilation, stage by stage, of the right material. And he sees truly. What I am & do at each lower level is not yet solar. It has to be transmuted on the way up. No doubt my human actions are an element that cannot be spared from the solar nature; but they do not, as such, contribute to it. Between man & Sun there are mediators.

Calés

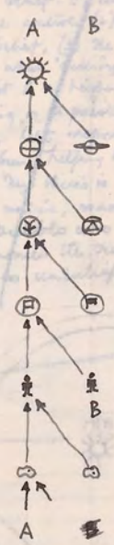
Let the earth appear to him a point in comparison with the vast circle described by the sun; & let him wonder at the fact that this vast circle is itself but a very fine point in comparison with that described by the stars.
Pascal: Pensées, 72.

(1)

+ Browning: Paracelsus, Bk. I.

The ~~approaching~~ retiring observer sees unit (a) shrink and 'pull in' units (a') & (a'') which are also shrinking. At length (b) appears, & the operation is repeated.

My human actions are an essential contribution to the nature of MAN, but they do not, as such, contribute to LIFE's nature. It is as MAN that I build up to LIFE, as LIFE to EARTH, as EARTH to SUN. This is only another way of saying that I cannot ~~rise an inch above~~ attain to MAN unless I take all ~~the~~ men with me (or am borne upwards by all men), that I cannot rise ~~an inch above~~ attain to LIFE unless I ~~take all living creatures with me~~ am joined to all living creatures, that I cannot ~~rise an inch above~~ attain to EARTH ~~could I am EARTH~~ while I leave out my part of her. Admittedly, without the least thing I do (without, for instance, the working of this sentence) the SUN is not himself: lacking any part of what I am at man level, I am not what I am at SUN level. Nevertheless, in order to gain the higher level, I must take to myself, stage by stage, all I need for the ascent. To travel ~~upwards~~ to the next halting-place is to be ~~transformed~~ re-equipped, fitted out for entirely new conditions, transfigured beyond ordinary recognition. All the ~~pinnacle~~ peak all things are solar: nothing else can stand the height. But the ~~pinnacle~~ peak ~~height~~ itself exists because it rests upon each lower stratum, ~~stages~~ ~~every one of the lower strata~~, ~~strata~~ ~~by which~~ the stratum is its inhabitants & all they do.



The "A" series is myself at my various levels. The "B" series is my colleagues or 'Equals' at those levels. But the "B" series is also myself, when the whole series is moved up one place in the scale. That is to say, I cannot gain the next stage without taking my colleagues with me, or without being taken by them.

C.S. What this means in practice is that I exert myself at the human level & leave the product to be ~~worked up, in my mind~~ made good, more or less, filled out, corrected, & supplemented, in realms outside my experience, till it is truly solar.

A. On the contrary, not only do I follow what is going on, but I realize it is going on in me. When I think my way through a problem from the more partial to the more complete point of view, when my interests widen from those of an individual animal to those of the Species or of the Planet, when my sympathies go out beyond this body to the bodies of all men & all creatures, when my imagination is kindled so that another's feelings & ideas become genuinely mine — when these things happen I am experiencing in myself the counterpart of what my ~~observing~~ relating observer sees. As ~~his outlook~~ my outlook is enlarged, so is his in-look. He sees me truly. He sees that I become solar ◎ by identifying myself with all the creatures of my own level, ~~&~~ so gaining the next level. That is the outside story which my inside story confirms.

◎ The Chinese astrologists who claimed to produce ~~it out~~ the eclipses they predicted (& to avert them when ~~the~~ the prediction failed) were not necessarily frauds, or mad. ~~Claiming the impossible~~. I ~~commonly~~ claim that I have built a house; ~~or write a book~~, as Napoleon claims that he has conquered a country. And yet neither of us can ~~really give reality~~ substantiate our claim that we can move our bodies.

C.S. It is easy enough to grasp how the inside story works up

by easy stages, from the exclusive to the inclusive — naturally, since man is as it were the brain of MAN, MAN the brain of LIFE, LIFE the brain of EARTH, & EARTH the brain of SUN, & since (in astronomical matters particularly) I do obviously sometimes think as the SUN. But it is not so easy to see how my 'lower' physical behaviour is essential to my 'higher' physical behaviour. Do I help to make the world go round? *

A: I certainly do. I help it to go round to good purpose, that is. Every human action which changes the distribution of things (& every action does) builds or unbuilds the SUN'S EARTH-ring. When I cultivate my garden or build my house I produce a new complication 186 million miles in diameter, in the SUN.

CS That will not do at all. Solar eyes will not work unless they cover 186 million miles. My garden works perfectly when it covers 186 feet. ~~It is an EARTHly & not a Solar garden~~

A. You mean it is an Earthly & not a solar garden. But it is really both. As an EARTH-garden it is an area say, ~~is square~~ 186 feet each way.* As a SUN garden it is an area 186 feet by ~~186~~ some 600 million miles, (186 feet big) but of a curious shape: two points in it that are 300 million miles distant are not only ~~also~~ six months distant but antipodal, as Australia & England are antipodal. It is a curious garden. But if it lacked this curious shape in space & time it would not work. It is a satisfactory little square garden because it is also a gigantic circular ~~ring~~ garden.

CS The present effective size is the size of the little square: the rest, being removed in time, might as well not exist for me.

A: It takes time for every gardener to walk round his garden. ~~[illegible]~~ It takes me twelve months to see the whole of mine. ~~because I am not in a position to see~~

CS. ~~You~~ are just looking at the same thing, day by day.

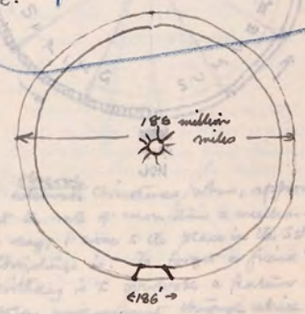
A: How obviously untrue. The delight of a garden is that every day reveals a new sketch of it. ~~is seen~~ This ~~garden~~ part has bare trees & hoar frost & berried holly & bluetits, but there is a part 300 million miles further along

* For many striking instances, coming from ~~all~~ many ~~countries~~ lands & many ages, of the belief that man controls the Sun, see Frazer's Golden Bough (Abridged Edn. 1922) pp.78ff. There are, I suggest, three stages, each necessary, each in its measure true, in the evolution of such a belief: (1) The primitive belief in magical control, (2) the scientific destruction of this belief, (3) the recognition that the science which 'destroyed' the belief is only lifting it to a higher plane.

The King or the priests, or sometimes the common people, felt responsibility for the behaviour of the Sun, helping him on his journey with magic. My thesis is that, at a certain level of his nature, man is so responsible.

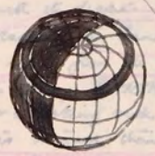
TAOS

The Taos pueblo who believe that but for their ceremonies the sun will fail to rise are not so unenlightened as they seem to be.



A modern poet writes of:
'The Sun, of whose terrain we creatures are.'
(Charles Madge: "Solar Creation")

* Or, rather, 186 feet × 186 feet by (say) 6000 miles, since my garden is really a ring round the Earth, as well as a ring round the Sun.



In a manner of speaking, one side of EARTH is permanently lighted, the other permanently in darkness, & my garden belongs on both sides.

In the later stages of ancient Greek religion, not the planets only but also the spheres of the planets were for the mortal [illegible] planet is not present [illegible] is filled by the human spirit [illegible] the sphere is all mercury, or Mars, or Venus. See G. M & Stages IV (p 140)

when the trees are full of leaves, where the flower-beds are full of red & white roses, & where there are many birds I never see in this part of my garden. It is altogether different over there. But it is a long way from here — so far that, travelling at more than a million miles a day, I shall be six months getting there.

C.S. ~~But this~~ And certainly not part of the garden makes sense by itself: it can do without the rest. not ancillary

A ~~Nonsense.~~ Don't be absurd. Do the digging & dunging & pruning & all ~~the other things~~ my labours in I do, ~~or should do~~, in the cold & bare part of my garden make sense, without the not enjoy, & the flowers I pick, & the fruit I gather in the other part? Does sowing work, in a plot a few yards & a few minutes long? No man ever sowed a seed except in a solar garden. Every gardener is a cultivator of the SUN.

C.S. A garden is a special case. Not all human activity is seasonal. All annual things are ancillary annuals.

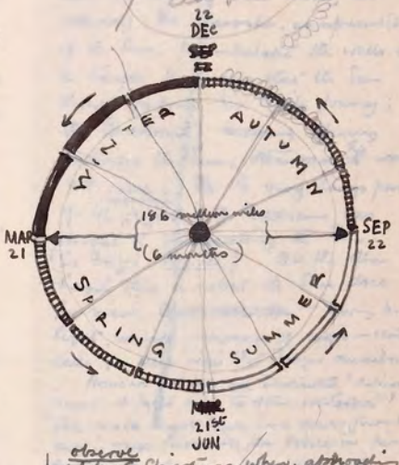
A. My life has many rythms: in fact it has as many rythms as lives. For instance, I live from day to day, as well as from year to year. The daily rythm is EARTH'S. It takes a day of twenty-four hours to 'realize' my EARTH-hood, as it takes a year to 'realize' my SUN-hood. And as my SUN-shape is a ~~Earth~~ ~~sun~~ ring (round the Sun) of 186 million miles in diameter, so my EARTH-shape is ~~another~~ ~~an EARTH~~ ring (round the Earth), some 6000 miles in diameter. ~~The morning preparations I make in the lighter part of the EARTH~~ ~~for eventualities~~ ~~in the darker part~~ All my activity ~~that~~ which is naturally linked to EARTH-rythms is ~~primarily~~ to that extent EARTH'S activity, all ~~that~~ which is linked to SUN-rythms is ~~primarily solar~~ to that extent the SUN'S activity. My short-term, hand-to-mouth purposes are terrestrial, my long-term ones are solar. But of course these aspects only appear as a result of analysis. ~~The concrete reality~~ My actual, concrete living belongs to all levels at once, & in it there is building-up from the lower levels to the higher. Thus a man's ~~the~~ daily ~~rythm~~ routine is the basis of his eventual achievement over the years. Thus, it is necessary to cultivate one's ~~your own~~ garden on EARTH, in order to cultivate it in the SUN. ~~Thus our human disasters really are disas is a disaster.~~ We are quite right to consider our human catastrophies disasters.

Sister 254

7 W Jones 38.

8 The breaking-down process: the approaching observer.

C.S. Man acts & thinks, & his efforts are integrated, till the only way to grasp their significance is to attribute them to the SUN, or the understanding



I observe ~~celebrate~~ Christmas when, approaching at the rate of more than a million miles a day, I come to the place in the SUN where Christmas is. To forget a friend's birthday is to overlook a feature of the solar environment through which I am passing.

A man circumnavigates the Earth every 24 hours, carrying his surroundings with him. All he leaves behind, as he passes into the night, is the day with its light. Night & day are places: the 'land of nod' is 6000 miles from the land of waking. That is to say: EARTH has a sleeping side & a waking side, & LIFE rotates through them.

Paley (in his Natural Theology: or evidences of the existence & attributes of the Deity, collected from the appearances of Nature. 1802) remarks that the relation "of sleep to night, is the relation of the inhabitants of the earth to the rotation of their globe; probably it is more; it is a relation to the system of which the globe is a part; & still further, to the congregation of systems, of which there is only one. If this account be true, it connects the meanest individual with the universe itself; a chicken roosting upon its perch with the spheres revolving in the firmament."

that the living SUN is in some sense a human creation. That I can follow. What I cannot follow is the reverse process. The SUN's thoughts, & even his bodily organisation to some slight degree, derive from man, but how can man's acts & thoughts derive from the SUN? There is nothing so very objectionable in the doctrine that the SUN is alive because I instil life into him, and is intelligent because the one minds & thinks for him, and is spiritual because he contains spiritual natures. But the other side of the doctrine is a very different matter. I refuse to believe I am alive, & intelligent, & gifted with a spiritual nature, because a Star, more alive & intelligent & spiritual than I, is good enough to parcels out to me some of its qualities. This is the most servile idolatory.

A. The answer is that the SUN really is more alive, intelligent, & spiritually developed than the man can ever be. But ~~how do I come in?~~ to put the matter thus is to risk misunderstanding. For I am no less SUN than I am man. In fact I may claim to be more truly myself at SUN-level than at man level, since at the higher level I have found & realised so much more of what I am. To dismiss Sun-worship as irrational is itself irrational. In detail, the Mexican cult of Tonatiuh (the Sun) was of course both fanciful & barbarous, but in principle it was anything but nonsense. The Sun after his daily conquest of the stars, & long journey across heaven, sinks exhausted into the West, shedding in every red sunset his precious blood for man. Man's duty is obvious. The sacrificial priest-victim whose blood is shed to replenish the Sun's, identifies himself with the Sun, & leaves Earth to take up his new duties in the sky.

C.S. ~~This is arrogance.~~

A: Then let it be written off against my you also accuse me of, servility to the leave everything as it was. But what are the facts? What does my observer, now returning on his tracks, report? He says that whereas, when receding, he had all along to include more & more (reducing it to manageable size so that it could be included), now he has all along to exclude more & more, & so make more & more of the less & less that remains. The ship is in danger of going down, ~~must be lightened~~ because ~~the cargo is~~ the crew are not only growing, ~~but~~ demanding more & more elbow-room, but producing ~~under~~ numerous offspring, ~~swelling~~ while the little ship (his field of view) ~~must~~ cannot stretch an inch. So overboard, one by one, they have to go. Her choice is all-important. Pluto, Neptune, Uranus, and all the other Planets, with the Sun, the Asteroids & the Comets, are sacrificed in turn. Only EARTH is left. Overboard goes all EARTH but LIFE, all LIFE but MAN, all man but myself. I the man am all that is left of the original crew.

C.S. Yes, but on the whole the choice fell as it should have done. What went overboard was much of it, supercargo. The fittest of the Planets & of the 'Sphere' survived.

A. Even so, the survivors ~~what remains~~ cannot but be less in content than the original shipload. And supposing my observer comes even nearer, rejecting all

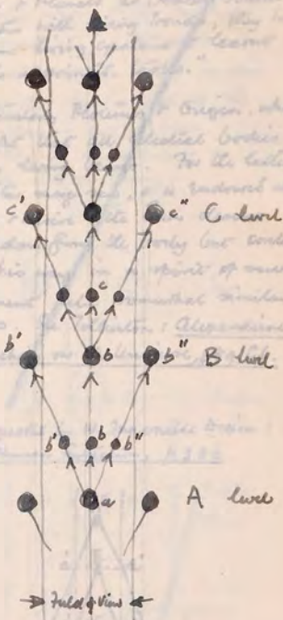
It is significant that the Mexican Government have revived on a magnificent scale the pageantry of the 'Renewal of the Fifth Sun' (without, of course, the human victims), & that the ancient ritual is followed very closely.+ The point of greatest importance is that man feels responsible for the Sun's functioning; he does not wash ~~his~~ his hands of the whole business, but realises his identity with the Sun. He says, in effect; 'I am the Sun.'

C.S. This is arrogance.

On the one hand, this is what man does for the Sun :— for instance, [illegible] The Chilcotin Indians walk round in a circle leaning on staves, in order to help the Sun during an eclipse; the Pharaohs, as representatives of the Sun, perambulated the walls of a temple to ensure that the Sun should perform his daily journey; the Brahmin's morning offering produces the Sun, otherwise it would not rise; ~~the~~ a very large part of the communal effort of the Mexicans was devoted to invigorating the Sun. (See Frazer: loc. cit.) On the other hand this is what the Sun does for man. ~~that calls for~~ — giving him light, warmth, & increase of crops — that calls for thanks rather that Frazer disapproves.

Have we not here an 'indirective' discernment of facts now too often overlooked? "All souls must have come down from the sun," says Leonardo da Vinci in his Notebooks, "seeing that they are essentially the warmth that heats & animates the body, & seeing that there is no other source of warmth in the world than the sun."

Cicero: A.D. 66 reversed



The approaching observer sees units (a) swell & give birth to units (b)(b)(b"), which themselves swell and demand more & more elbow-room, till all but (b) have passed out of the field. The same process is now repeated at C level.

+ For a description of the Pageant held in the restored temple ~~at~~ of Quetzacoatl, see Carmen Cook's article "The Creation of the Fifth Sun" in the Geographic Magazine, August, 1938.

my cells but one, all its molecules but one, and so on till there is, at the point of contact & identity, nothing left of me at all. If this second half of his inward journey is ~~not~~ a process of whittling down what I am, is not the first half also?

CS. The point is that what I am as ~~molecules~~ atoms does not derive from what I am as a man, but vice versa.

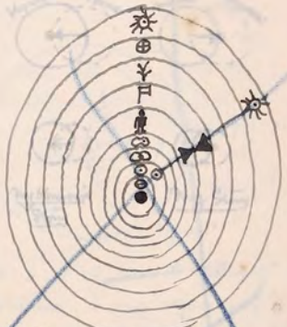
A. This is madness — of the pseudo-scientific sort. ~~What~~ All I am ~~as a man~~ — my hopes & fears, my loves & hates, my notions about the universe & about atoms — all I am & will be is by some magic encapsuled in this sub-microscopic electric whirlpool, this miniature solar system, whose structure defies verbal description, whose very existence is thought by some to be a no more than a useful myth. If this is not twentieth century superstition, what is? It is superstition to believe that I derive from that other solar system which is plain for all to see, upon which I depend as upon my own organs, from which I emerged, into which I shall disappear! So (in effect) Spiritus the modern savage, & imagines he is the intellectual superior of the wisest of the ancient Greeks.+ — Pythagoras, Plato, Aristotle, the Stoics ~~for whom~~ the Alexandrines & Fathers, ~~Fathers, Origens & almost all~~ many of the great mystics, to say nothing of ~~lots of~~ all those poets, ~~for all of~~ for whom the SUN ~~was~~ is a living creature. almost all the writers of the Hellenistic Age,

9. The breaking-down process: light.

CS. Or was it the Sun rather than the SUN that lived for them? There is all the difference in the world between the two. The Sun is obviously the source of light & heat, & is the sustainer of my life. The same cannot be said of the SUN. In fact, I am far from clear about the function of the Sun & of Starlight in my solar body. My approaching observer gets rid of the Sun along with Saturn & the others as though it were not more important to me than they. I feel there is something wrong here.

A. My observer knows me by my light, for my light is what I am in my various concentric regions. In my SUN region, my light includes the light of the Sun, in my EARTH region, it includes only the light that EARTH has made her own. My observer analyses or breaks up my light, rejecting one part of it after another till only the light of my human body is left. He goes on narrowing down the source till he arrives at the atom. This, he says, is the real source of my light — the jumping of an electron from one orbit to another. But he is still distant from the source: he is still in one of my regions, & not at the centre.

"The light is not without me, but within me, & I am myself the light," said Fichte.x

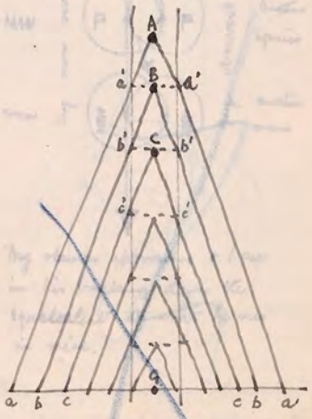


G.M. 5 Stages p 136, 137

+ Plato: Laws, 898 D; Timaeus 38 E; Republic, 508. The second of these passages describes the Earth, Sun & Planets "as bodies bound together with living bonds, they had become living creatures & learnt their appointed tasks."

• Particularly Ptolemaeus & Origen, who taught that all celestial bodies were living beings. For the latter a Star may sin, & is endowed with will & desire: the Sun desires freedom from the body but continues on his way in a spirit of service. Clement held somewhat similar views. See Tollinton: Alexandrine Teaching on the Universe, p 89, ff.

x quoted by W. Macneile Dixon: The Human Situation, p 382.



My observer at A is in a position to take in light from my whole expanse a—a; at B his view is narrowed to b-b, & so on till, at G, he cannot take in any of my light.

5/26
1916

The Sun, and the pursuit of truth, beauty, & goodness.

~~Finally~~, there now arises a query of the greatest moment — What is the use of the Sun, & of our recognition of him? What in terms of the spiritual needs of men, & his aspirations & his destiny, is the value of the solar test of integration? What essential evolutionary ~~attainment~~ stage, or attained, what indispensable phase in the ~~process~~ of self-knowledge is here embodied?

Now these questions are no mere academic exercise, for C.S. emphatically says that the living Sun, no matter how true a fact & no matter how necessary to the physical well-being of man, is superfluous otherwise, & perhaps best left alone: the moralist & the thinker, if not the poet, do very well without the relevant to his moral welfare. The living Sun. It is generally recognized nowadays that, to find himself & to grow to his full stature, a man needs only to act as a conscious organ of the social body (within its many subordinate units from the family upwards), and (many units add) as a conscious organ of the divine body, variously described as the mystical Body of Christ, the Whole, the divine society, & so on. ~~That is to say~~, in other words, to be a conscious & loyal citizen of the city of man & of the city of God is the whole duty & privilege of man, & no other citizenship is needed or permissible. Or (since there is an increasing concern in religious thought for the animals) let me go to the limit, & say that the hierarchical grades which are now recognized as relevant to the moral life are those of the bodily organ, of the whole human body, of the mesocosmos that lies between man & Humanity, of Humanity, of the animal kingdom, & (for ~~a few~~ rare souls such as Albert Schweitzer) of all Life. But the unspoken assumption throughout is that the wholes above Life — in particular the Earth & Sun — add nothing that has not already been included below, & that will not be included above also, at the level of the Whole.* They may therefore be safely ignored.

To this formidable-looking objection let me say, at once, that my ~~step approach~~ brief task in this inquiry is lay bare, so far as I am able, the whole of my anatomy, regardless of practical consequences. The value that counts here is truth — whether the truth is good or beautiful or useful, or whether it is evil or ugly or useless, is a secondary consideration. And I take it that the truth of my Sun-hood, as I live in the universe — ~~as all the parts the~~ has already been sufficiently established, at least on the physical side. As for the psychical aspect, if that (though actual) is superfluous, at least my realization of its superfluity is not mine to know. It is as well to know the worst.

But to believe that there exists a vast hierarchical organization ~~linking~~ Humanity & Life with the Whole, while believing that in such an organization the psychical & moral aspects are either moribund or absent, is to believe in the discontinuity of nature, in an essential aberrancy at the heart of the universe, in the opaqueness of the world to the light of reason. All our experience should warn us that the fault is much more likely to be in us than in the universe, & that the values we miss are there if we could but adjust our eyes to them. Though it is as much by faith as by sight that we apprehend the reasonable order of the universe, at times that it is idiotic & meaningless, our faith is wonderfully borne out in practice. Science is founded upon such a faith; & we cannot even manage for a moment without a large measure of it. There are, then, good grounds (within which before we come to the empirical evidence) for doubting the C.S. view that the Sun is only of physical importance. And, as soon as we stop to weigh the evidence against this view, it is apparent that the ~~astronomical~~ levels of this chapter (as of the previous & following chapters) are the greatest moment in the unfolding of the spirit that is in us. The bridge of the suprahuman is not a useless folly: on the contrary, it is the only way across the gulf that separates man from his true home, and even some sort of the bridge is needful. The extraordinary thing is that we should ever have imagined otherwise, that we should for so long have concealed from ourselves the identity of the better part of man with the more exalted hierarchical levels. But there are signs that the intellectual climate of our time — the ~~climate~~ weather in which only the suprahuman can flourish, & against which the suprahuman has to wrap itself up till it is ~~past~~ recognizing — is about to change.

I come now to the evidence, ~~which I shall briefly set down under three heads~~: that the Sun, (like the other "astronomical" individuals of the hierarchy) is actively concerned in ~~the (1)~~ the attainment of (I) truth, (II) beauty, (III) goodness.

I. The proposition that knowledge of the stars is knowledge by the stars, & the proposition that this knowledge is of a high intellectual order, guiding & inspiring, to a large degree the rest of science,

5/26 1916

~~On first thought~~ the poet who ~~stands for~~ the sensual level while the mystic & the thinker have temporarily forgotten it — he keeps the truth ~~—~~ from vanishing altogether from the consciousness: a good example is Hugo.

* A curious exception to this view is that of C.F. Krause, who, in his ~~ethical~~ philosophy of man, ~~for example~~ links terrestrial humanity with humanity on the Sun. See Windelband Intro to Phil. p. 234. What is wrong here is not the bare attribution, but the fantastic form it takes.

Perhaps few may go so far as to suggest Hegel: "What is rational is actual, & what is actual is r.", (Enc. 6) ~~& such like this is our important assumption~~ ~~in philosophizing~~ without making some such assumption no true philosophy could never get under way at all.

need not delay this discussion. Our vast debt to astronomy, both for the vision it gives directly, & for other insights or inspirations or demands indirectly, has already been ~~acknowledged~~ pondered fully in these papers. ~~It~~ The mind that is in us is ~~[illegible]~~ (not to say ~~[illegible]~~) stellar, or it is nothing.

II Nor do I need to elaborate upon the beauty of the heavens, apart from the role which they have played in the development of the imagination, of the poetry they have inspired. It is only necessary to add that the heavens improve upon acquaintance, that there is much more in them than meets the casual eye. For example, ~~[illegible]~~ Bruno did not look upon the same stars as his inquisitors: ~~[illegible]~~ in him the artist was joined to the philosopher & the mystic — the astronomer in him was half poet. The immense enthusiasm with which the Renaissance welcomed the new heliocentric universe, & the still vaster universe in which the Sun itself is only one of myriads, was as much an apprehension of cosmic beauty as it was of cosmic truth. Here was an escape from a prison-house of the imagination into an astronomical El Dorado rich with unending possibilities of life & beauty, at least as valuable ~~[illegible]~~ for what it hinted at to the artist than as for what it proclaimed to the scientist. It was as if the pent-up aesthetic spirit ~~that~~ in man, not at last bursting bonds, refusing to be contained in a smaller compass than the ~~[illegible]~~ galaxies. And this spirit, of which we are the heirs, cannot evolve to study the heavens without itself being heavenly.

Rogers.

III The ethical prerequisites of science are well-known — the indispensable humility before the facts, the selfless devotion to truth whatever the consequences, the willing admission of human limitations (indeed the deliberate study of the defects of the instrument, in order to allow for them). These are more than a kind of intellectual asceticism: they are the necessary moral equipment of the man of science, & also (to a less extent) of all who are alive to his work. Here is a sense in which a wicked man is disqualified to study the Sun. But there is a sinister, & less well-advertised, aspect of the morality of science — the matter, no less than the method, of science has moral implications. Because man is more than man, his egoism is more than human egoism, & his sin is more than human sin. Thus it is common to find that while he is a fairly good man he is a fairly bad planet, or vice versa. The good man is not good until he is good at all levels of the personal to universal, until he is a good planet, & a good star, & a good galaxy. That is to say, the Copernican revolution by which he is enabled as a child to see himself & his world through another's eyes, is only one of a long series of such revolutions of increasing scope, every one of which must be accomplished if the child is to grow to his full moral (as well as intellectual) stature. Again & again he has to shift centre. The man whose family or country lies at the centre of the universe, as the end to which all other families & countries are means, may as father & patriot perform miracles of self-sacrifice, but he is still self-centred. Egocentricity has to be overcome level by level, painfully & painstakingly, leaving no exceptions: the mediaeval saint, in so far as his Faith lay at the hub of the universe, was a Joseph to whom Sun & moon & stars bowed down — at the planetary level he was anything but saintly. A good planet knows that it is only a planet, a good star that it is only one of myriads, & that its centrality is an illusion. If we were simply inhabitants of a star & of a planet, we could leave them to work out their own salvation, but this is impossible seeing that they are ourselves — if they go unsaved so do we; if they are self-centred we are self-centred. It is incumbent upon us to inform this planet & star of ours, & Science is our chief instrument. ~~This is not the only direction~~ Of compelling as other aspects of moral advance (enlightenment may not be neglected for example) nevertheless ~~without~~ this vertical or cosmic re-orientation ~~improvement~~ is indispensable; ~~man is not yet saved~~ man's ~~his~~ salvation involves universal salvation, ~~simply because~~ for he is himself universal. In other words, because the wickedness of ~~man~~ humanity is superhuman, his virtue must be superhuman; ~~because his sin of self-centredness~~ his ~~the~~ fall ~~into~~ drags down the Earth, the Sun, ~~& his recovery is therefore includes theirs~~ ~~[illegible]~~ lunar & solar, as well as human.

It is important to remember, however, that while the work of science is an essential ingredient in this cosmic process, it is in itself quite insufficient. In so far as the scientist, while shifting his physical centre, retains his psychical centre fixed & immobile, he does not succeed in correcting

Pascal: 4/25

Note that the defect of the Ptolemaic cosmology was not that it made too much of Earth: indeed, by subordinating her to all the spheres, she was in no degree degraded. Egocentricity is as often self-abasing as self-asserting. Thus Pascal:— 1/17

Universe only God is good

universe ex Deum

the geocentricity at the astronomical levels. If Earth is the only living planet, in a Sun which is the only living star, then it matters little that Earth is living & habitable, or that the Sun is one stray of magnitude & very remote from the Galactic centre. Earth & Sun are still, in effect, central, & the true Copernican revolution has yet to occur. Our science — necessarily, as Ptolemaic in that — it has in fact little ~~[illegible]~~ to say either for or against the evidence of other life in the universe. But its influence is far from neutral in this matter: science has allowed it to be universally supposed that the universe is, as a matter of scientific fact, lifeless, & that there are in the heavens no other centres than our own worth shifting to. On this subject I say many things elsewhere in this book. Here I need only remark, first, that at no level can I prove that my companions are my equals in worth & status; second, that until I am nevertheless prepared to take them as such on faith I can never become social, or self-conscious, or self-transcending; third, that science & art & religion are alike involved in this task. It is necessary, I believe, to adopt the attitude of Buber, to say 'Thou' to your equals, & to cease saying 'It' of them; but you must nevertheless study to objectify. ~~[illegible]~~ You cannot love your neighbour without knowing him, & without seeing his beauty clearly. That is why every genuine Copernican revolution is therefore ~~[illegible]~~ at once the discovery of a new truth, an artistic creation, & an act of piety. In it the cognitive, aesthetic & creative modes of the mind act as one.

Vegetable & stars ~~are thus material on which the moral [illegible] must be exercised~~ do not represent moral exercise so much as the ~~[illegible]~~ very product & condition of the moral life.

10. The Sun & the mystic way.

Nevertheless (it may be objected) the universe of the typical medieval mystic was geocentric, & in addition, involved about geocentric & anthropocentric; more than this, it ~~was centred upon~~ Christ in particular, & in general, & upon the Western Church. Yet this extreme of intellectual self-centredness at the higher levels of the personality (an extreme of which anyone with the rudiments of education is now incapable) ~~[illegible]~~ indifference to all natural beauty, ~~[illegible]~~ by no means prevented the attainment of mystic's goal, which is the 'unitive life'. Is it not apparent, then, that while Copernican revolutions are doubtless of value in the spheres of conduct & art & science, they do not necessarily unite with the religious life in its highest expressions? Briefly, & in particular, is not the Sun more likely to hinder than help the contemplative?

To reply to this final objection, let it be said, first of all, that mysticism *per se*, born from the life of the intellect, from the moral struggles of active living, & from the appreciation of beauty, is a fragment & a misnomer. The only genuine mysticism contains (& seems to be the highest proof of) the intellectual & moral & aesthetic faculties; & even when, in rare instances of attainment, these three are transcended, it is only because the completion & fulfilment of each of the three requires the completion & fulfilment of all of them; ~~all in one~~ Goodness, truth, & beauty can get very far without the others, & in the end they coalesce in the ultimate & indescribable experience of unity. ~~This is indescribable~~ Hence whatever is implied in, & necessary to, the moral & intellectual & aesthetic consciousness, is implied in & necessary to the mystical life; or, if it is not, that life is indeed ~~merely~~ the delusion that many imagine it to be. In particular, the mystic can by no means dispense with the stepping-stones which (though they are revealed in part by ~~the exercise of~~ secular & intellectual faculties) lead from the part to the whole. ~~[illegible]~~ Bergson goes to show that there is one way, seen through the different temperaments ~~[illegible]~~ that I have it, & plus a scientific way, plus an aesthetic, & a moral, & a mystic way. The way is one as the way for men — head & heart, reason & intuition, scientist & artist, ~~[illegible]~~ active & contemplative — is one.

Then are mere assertions. What are the actual facts as reported by the mystics themselves? ~~[illegible]~~ Let me take for example the most explicit & detailed account of the upward path — that of Dante — in which the science & art and religion of his day are incomparably blended. In the Divine Comedy all that is finest in ~~He in the~~ one magnificent poem, the medieval way of life — ~~[illegible]~~ the way to life, the life of the Whole — is not merely summed up, but its ~~[illegible]~~ strength & confusion (at its best, & when its orders are ~~united in a single picture~~ straight & clear) out & given ~~[illegible]~~ directions. Here, if anywhere, we shall find mysticism at its healthiest — because it is so much more than mysticism as narrowly interpreted. Where such a lover, statesman, philosopher, theologian, scholar, poet, & ~~[illegible]~~ contemplative are joined in one man, & expressed themselves in one work, we may well give ~~[illegible]~~ our attention. For Dante, the earth is ~~a compass of [illegible]~~ enclosed in concentric spheres or heavens (after the pattern of the Ptolemaic cosmology) beginning with the sphere of the Moon & leading, through those of the planets, of which the Sun is one, to the sphere of the fixed stars, & the crystalline heaven, & the Empyrean. ~~[illegible]~~ The last, beyond space & time, is the home of God himself, & the goal of the mystic's ~~[illegible]~~ pilgrimage. Each successive heaven, through which Beatrice conducts ~~the poet~~ Dante, is the region of

O. The current ~~[illegible]~~ acceptable ends of poetry, what I have said in this section is to describe the Sun as a symbol or archetype & important psychologically. (See, e.g. Jung Psy. of the Unconc. p. 127.) But the full, ~~[illegible]~~ psychological value of the Sun depends upon the recognition that its value is much more than psychological, & its reality as a living, where is an objective ~~[illegible]~~ fact.

* E.U. 155 156 our steps at astral plane.

Russell

They are made by the C. as [illegible]

Consider, for a moment, our needs. Do we want the Sun?

6

7

8

8a

Bradley p 74.

greater spirits than the last, & is under the guidance of an order of angels superior to those who guide the lower heavens. The fourth heaven, ~~is the sphere of the Sun~~, controlled by the fourth angelic order — the Powers. He is the sphere of the Sun, of whom Dante says:

"the great minister
Of nature, that upon the world imprints
The virtue of the Heaven, & doles out
Time for us with his beam, went circling on
Along the spires, where each hour sooner comes;
And I was with him, ~~[illegible]~~,
~~But one was, that treats his thought, the thinking.~~

Cant. X.

And there in the Sun ~~the Poet meets~~ Dante finds the spirits of St. Thomas Aquinas, Albertus Magnus, & others of the blessed, a luminous band circling round him like stars around the pole-star, or (in another of the poet's figures) a "holy mill". I need hardly point out the connection between this picture of the living Sun, & the picture which I have tried to paint in this chapter, is no coincidence. *

Amongst the manifest sources of Dante's vision is the angelology of the Pseudo-Dionysius, whose ninefold celestial ~~heavenly~~ hierarchy (ranks ~~of [illegible]~~ governing the lower world & ~~[illegible]~~ the ~~[illegible]~~ of God) marks out ascending stages in the mystic's realization of the Divine Goodness, & the mystic illumination. Man, in his ascent to the Bountiful Origin of all things, is assimilated to the heavenly intelligences, who (as the illuminated & the Gods) are said to move in a circular manner. This teaching has links with the mystery religions of the Greeks & Romans — with, for example, Mithraism, whose initiates are described as rising above the earth, through nine celestial regions of increasing sanctity, illuminated till they attain complete union with the divine nature; of these nine grades, the Sun is the sixth, when the soul, being purified, ~~is described as~~ becomes fiery. Before the rise of Mithras was brought from Persia to the West, "Greek literature is permeated with a kind of intimate language about the Sun, which seems derived from Plato." In general it may be said that the planets, as the Sun, & the stars, at the beginning of the Christian Era, were rungs of the Jacob's ladder whereby the soul mounts to its divine source, either after death, or in the lifetime of the initiate who anticipates his future ascension. They did not symbolize, so much as embody, the superhuman life of which man is capable.

In the Gnostic & other early heresies, in the Kabbalah, in the Hermetic philosophy & astrology & various esoteric cults & traditions, these doctrines ~~lived~~ are kept alive & (for the most part) degenerate in the West, till the Renaissance furnished the climate in which they could for a space flourish again. That they were still a living reality in the Middle Ages, however, abundantly evident, not only in the Divine Comedy, but in mysticism generally. Because the mystic's adventure, with its grades of attainment, is universal & perennial, (though the details are always described in terms of the current theology) it is inevitable that his account of the way should reveal, in spite of all bias, features that his forerunners have recorded: there is only one road, without ~~no~~ short-cuts.

Let me illustrate my point with a few examples of what may be called the topography of mysticism. (1) The mystic's progress is not uniform; the joyful attainment of one stage is followed by a long period of deprivation and barrenness of spirit before the next stage is reached. The typical mystic," (to quote a well-known authority) "seems - - - life." Or, in the language of this inquiry, the universal 'law of the spindle' (characteristic of original travel in general, & of astronomical travel in particular) is exemplified in the mystic's way. (2) The pilgrim ~~along this way~~ can only advance by taking with him what he seems to leave behind. His progress is cubic rather than linear, growth rather than travel: it is a task of world-acceptance & not (or less than of world-denial & world-exclusion), in which the self, by refusing to give priority to itself at any level, taking on more & more, till it can truly claim that all externality is overcome, & no alien self remains. The ~~only~~ question, then, that concerns me here, is not whether, in this process of assimilation, the Sun, & the other astronomical individuals, are involved — they must be — but how far they explicitly involve, & mark off stages of mystical attainment. (3) And the

* Nor need I add that Dante's Sun has performed a revolution that is similar to that of Copernicus: he is heliocentric to a degree that the scientist as such can never be.

"A star am I myself among stars", says the initiate to the stars he encounters on his flight through the heavens, "perambulating my orbit with joy & shining forth from the depth."

From the Mithraic liturgy, a Greek papyrus in the Paris National Library, quoted by R. E. Ne R. Ph, P.61. Cf. the Dior Q.88.

inscriptions on Orphic tablets, discussed on the subject of an Appendix to Jane H's Prolegomena to the Study of Greek Religion.

Cf. M. 139.

INGE Plot. i. 57.

Ascension of Christ

Boehme ago much in 20 on the subject of the ascension of Soc

a stage in the alchemists' quest of the Philosopher's Stone was the finding of Sol: the quest was [illegible]

the cult of the Sun is, in fact, always breaking out in the most unexpected places. Goethe, for instance, confronted a natural scientist to Sun-worship. Gespräche mit Goethe (1868), iii pp. (Eckermann) 255ff.

WEBB N.T. 66.

EH 168

Cf Ch. (alchemy) & S (Sun)

Tagore 2/25

And to the objection that all this is long ago dead & buried let me reply that it was found necessary, for the Prof. Royal Astrophys. that (contrary to a well-founded rumour) no new star appeared in Orion in the night of Evans's death (Corp. Rel. Exp. p.231)

mission is that they are surprisingly explicit, so far as the degrees of the time allow, & surprisingly consistent. Always it is taken as axiomatic that the goal is a heavenly one, above the Earth, & that the mystic path is an ascent to higher planes, where exalted spiritual states are enforced; the cosmology is all the more firmly established for being ~~[illegible] & unformulated~~ — it is so much an ingredient of Life that it is no longer an ingredient of dogma. "Let us ... pray," says D the A (the writer who inspires so much medieval mysticism) "looking upwards — Rays ... (?) ... the celestial planes the mystic finds exactly what we [illegible] Dante expect him to find — light & fire." Here is the light from heaven, above the brightness of the sun, of St. Paul; the Light of the Fourth Gospel; the Sun of Plato's cave-myth, the Sun-faced angel of "the Revelation"; the Sun of brilliantly at midnight of Apuleius; the chalice of life of St Francis which made Brother John "fire like the Sun" Fioretti; the Sun of righteousness ... with healing in his wings, of the Hebrew prophets; the "lume fuori di misura" of Jacopone da Todi; the "flowing light of the Godhead" of Mechthild of Magdeburg; the light more brilliant than the brightness ~~of the~~ round the Sun of St. Hildegarde; the "infinite brightness" of St. Teresa; the ecstatic words of Pascal: "Depuis environ dix heures et demie du soir jusques environ minuit et demi. Feu. — in which he recorded his illumination. . . . but the list would be endless. (5) It will certainly be objected that I am mistaken, the symbols for the thing symbolized, & that the light of the mystics is spiritual & not physical. On this subject, hear the ~~great~~ English mystic Richard Rolle: "It is magnificat. — — —" William Law: "In Eternal Nature, or the Kingdom of Heaven, materiality stands in life & light." To which Evelyn U. adds the comment "The mystics are realists," who protest again & again that the spiritual world is not other than the physical, but the physical seen in a new context, 'under the form of eternity': there is nothing common or unclean, & the splendour of God shines everywhere in the world. "Every visible & invisible creature is a theophany or appearance of God" says Eriugena. "In this state of lucidity," says E.U. (of the subject of Blake's experience of the visible universe transfigured) "symbol & reality, Nature & Imagination, are seen to be One." And, later in the same work: "True illumination, like all real & vital experience, consists rather in the breathing of a certain atmosphere, the living at certain levels of consciousness, than in the acquirement of ~~specific information~~ increasing. "... sees all about it a transfigured universe." If 'spirituality' means abstraction & not increasing concreteness, it is hollow & an illusion. Fatal to real mysticism is the opinion that there are two worlds, one base & to be superseded, the other undefiled by terrene imperfection. This is not to deny that without distinction there can be no advance, — no low, no high. ~~[illegible]~~ The distinctions are not distinctions of subject-matter, but of the way the subject-matter is apprehended. (6) The mystic deals in the same goods as common sense, without addition to or taking from them. He collects the data of the physical universe, smashed to pieces in space & time by E.S. & by science, & pulls together the scattered fragments: restoring the unity of nature, he discovers the greater wholes & the larger rhythms, not by contemplating their life from outside alone, but by actually living it. That is to say, he comes to himself at higher levels, by ~~the conquest of~~ overcoming space & time. He ascends by the progressive achievement of simultaneity. "The natural mind ... Creation." And William Law: "Everything 263 state." (It may be said, indeed, that the Earth & Sun of this book, since they do not exist as such in the fragmented life of common sense, but require a longer duration (or a larger space-time) to be themselves, are spiritual rather than physical, products of the creative imagination rather than facts of which science can take account. In a sense, this is true; & in this sense, the Sun of the mystics, the heavenly pilgrimage, & the Illumination, are 'spiritual' realities, very different from the 'physical' phenomena of the sensible universe. Some find such a bifurcation of reality necessary; but I believe that for me, whatever value it had in the past ~~has now gone~~ is now far outweighed by its ~~[illegible]~~ disadvantages. To split the universe thus is ~~not only~~ not only unnecessary; it is confusing & mischievous. There exists no break, no hint of discontinuity, between (a) the higher worlds ~~that imply great spaces~~ with very great spaces of time & space, (b) the cosmos world that will be smaller spaces, & (c) the infrahuman worlds which imply still less." From the apex of the pyramid, where time & space are transcended by inclusion, to the base where they are ~~abolished~~ inflicted by exclusion, there is ~~an~~ ordered progress in spatio-temporal implication, of all emergent values & qualities are the product. If any part of this unifying process is 'spiritual', ~~then~~ then it is all 'spiritual' from top to bottom. If any part of it is inorganic, so is all of it. (Blake was right — "Nature is Imagination." EU 259.) If the mystical vision is 'spiritual', so, at a different level, is

SUPER NATURALIST = ++ Naturalist

EU 98

D. 32.

III

EU 103 (mysticism) "looking upwards — Rays ..." (DS) identifies the clear, here, with mystical way

Ads IX. 3 XII. 5 XXVI. 13

Rev X. 1

2 Pet 1. 16

Matt. XIII. 43 XVIII. 2

Mark IV. 2.

Laudes XCI. (EH. 249)

EU 249

EU 189

EU 179

EU 293

EU 259

EU 264

EU 239

McN.D. 328. Thus Fichte: "The light is not without me, but within me, & I am myself the light." Is this an admission that the light is utterly different from the Divine light? Perhaps it is rather the half-consciousness of Sun-hood.

Eckhart Fox pp 79

mother of all life

We have no scents, or at least they are few scents: for us it is thus despite common life of ours partially transfigured, partially out of time; it is an indescribable stage in the art of ordinary fact, in the revelation of the divine in the lowest at and in the human; not angels in itself.*

EU 239. "Creation." And William Law: "Everything 263 state." (loc. cit.)

* Our language acknowledges these facts in metaphor, we consider Eriugena to be disclaiming.

Jalaludin pp 216

Cheik Mamari.

* Consciousness has suddenly changed its rhythm & a new aspect of the universe rushes on. EU. 178.

⑥

[illegible] heaven than Earth" Rev of D.L. LV.

the common sense version. If the ascent of the upper half of the pyramid is the mystic way, then so is the ascent of the lower half. If heaven is not here it is nowhere. The life of the spirit ~~(if you like)~~ is the completer realization of physical life — it is the physical coming into its own, healed of its time-wounds & space-wounds, ~~in a real~~ ~~sense~~ It is more physical than the physical. In short, mysticism is not mysticism if there is anything essentially queer or peculiar in it, anything stuffy or secretive. If its realism does not exceed that of science, if it is not itself the science of the higher wholes of which the Sun is one (call them physical or spiritual) then it fails in its task, which is the most vital of all tasks.

(7) Lastly, there is the indispensable negative side to the mystical adventure — the side of loss & death, without which there is no increment of life. "This dying," says Tauler, "has many degrees, & so has this life.... The stronger the death 218 the harder death." Note again, not an analogy between the spiritual & the physical, but an identity — Throughout this part of my enquiry, the chief C-S objection always is that, in rising from one level to the next, an altogether disproportionate weight of dead matter has to be taken on: Life must accept death on an ever-increasing ~~quantity~~ scale, whether as geo-spheres in order to live the higher life of Earth, or as the sun & the planets, in order to live the still higher life of the Sun. The tiny living seed must be, so to say, buried in a great mass of dead soil, if it is to rise to a new ~~[illegible]~~ degree of vitality — alone & alive, it can do nothing. Earth is the corn of wheat which must die into the field of the planets, before it can come to life as the Sun. The more life, the more death, & the more death is overcome.

'Second Sermon for Easter Day' q. in EV. M. 217, 218.

The subject deserves a volume to itself, but I have perhaps said enough to ~~show that the~~ underline the truth ~~that~~ the ancient doctrine according to which the mystical way from the human to the divine lies through the allegorical hierarchy, ~~which is at once 'physical' & 'spiritual', &~~ of which the Sun is an ~~important~~ universe member, is profoundly true. ⊗ The practical ~~importance~~ of this conclusion cannot be exaggerated. While the duplication of the hierarchy into (1) a secular & material system, abandoned to science & common sense, and (2) a sacred & spiritual system, reserved for mysticism & theology & ~~[illegible]~~, (which [illegible] was no doubt historically necessary (if only to free science for its own work) the consequences of the duplication of reality are now increasingly damaging alike for religion, & science, & art. The greatest need of modern man is the rediscovery of the one ~~the~~ living, ~~holy~~ sacramental universe — a world that, with its lost time & divided space restored, is holy becomes now as it becomes [illegible] because it is whole. Of course the new mysticism will be in all essentials the same as the old, but it will recognize now clearly that ~~[illegible]~~ science & art are ~~a necessary~~ part of ~~[illegible]~~ itself, & that their way is its way, ⊗ ~~then In particular,~~ It will ~~realize~~ see that its function & fulfilment ~~are~~ progressively to realize the life of the dead worlds that science reveals, to clothe the dry bones of the physical universe with living flesh. In particular, it will take the solar system of astronomy, & turn it, by means of its own science, into the Experience of the living Sun, "because the Sun is nobler, & a degree deeper in Nature, than the mystery of the outer world." x

So long as the mystic's [illegible] goes unrecognized as such, it falls short of full Sunhood. We cannot CAIRD.

3/25
8/27
Inge.

⊗ EV. 113

Boehme: On the Election of Grace, II, 24. p 26

OMK 18–19 on Scholastic!

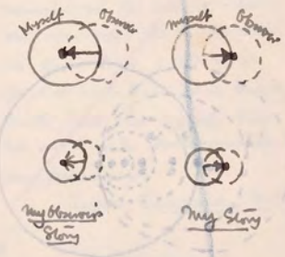
Gilson 364 — Malebranche.

The new way ~~of~~ to reduce this profound doctrine to ~~[illegible]~~ pious sentiment is to ~~detach~~ tear it from the universe of the scientist & the poet, & transfer it to some pretty shadow-realm. ~~of 'spirit'.~~

All I am really doing here is to retell, in modern idiom, the resurrection-doctrine of St Paul. We may either ~~deprive~~ ~~This There are only two things~~ ~~ways of treating this doctrine~~ ~~[illegible]~~ ~~first [illegible] [illegible] it of all reality~~ 'kill this doctrine' ~~& force by [illegible] the~~ 'spiritualizing' by ~~abstracting from it all~~ it out of existence, or bring it to life by seeing how

CS. This story does not seem to fit in anywhere with the familiar scientific story of light originating in the Sun, passing through space & the various layers of the Atmosphere, & being reflected from objects into my eyes.

A: There are two stories of the breaking-down of ~~my~~ light, because there are two story-tellers: myself & my observer, the insider & the outsider, the one who looks out at the world & the one who looks in from the world. And the ~~first~~ one cannot possibly see what the ~~second~~ other sees, though what ~~he they~~ he sees is always ~~the~~ on a par with ~~what the other sees~~ the other's vision. These are these two parallel accounts of what is essentially the same history, enacted by two different yet more or less equivalent sets of characters. As a matter of fact, each story-teller is giving an account of the other story-teller.

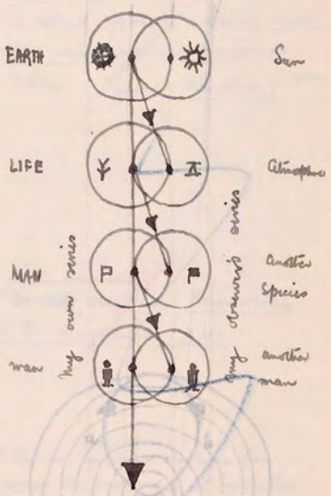


CS This is much too vague. What does it mean in the physical world?

A: It means that ~~so~~ when my observer sees me as EARTH, I see him as the Sun. When, approaching, he sees me as LIFE, he is for me the blue sky — the Atmosphere.+ When he sees me as MAN, he is for me some other Species. When he sees me as man, he is looking at me through another man's eyes. We are, ~~that is to say~~, always on equal terms. In other words, his analysis of my light is travelled by my analysis of his light. His story involves the series EARTH, LIFE, MAN, & man; mine involves the series Sun, Atmosphere, Species, another man. And both stories are stories of light. The second is the scientific story, but it is only half true because it is only one-sided. Science ignores — must ignore — what is happening to the scientist. The two-sided story, told by the pair of mutual observers who always keep pace with one another, is the whole story. No observation is complete unless it is two-way: what I make of my object & what my object makes of me cannot be divorced in the long run. ~~DS~~

+ The blue waves of the sunlight are scattered by the molecules & particles of the air: for this reason the sky — that is, the Atmosphere — looks blue. To LIFE, the Atmosphere is a visible EARTH-layer.

Jeans SIC 26

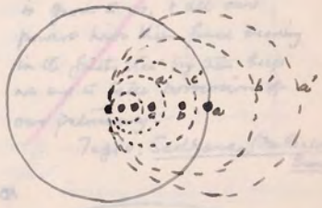


My observer approaches & I see in his breaking-down the equivalent of what he sees in mine.

CS Is it permitted to ask how any observer capable of observing can dwell in the Sun, in the upper Atmosphere, & in some Sub-human Species — say in trees or grass?

A: I know it seems odd, but the truth is that all these unlikely places are inhabited by intelligent beings. Who is my observer but myself? How can I know the EARTH ~~be known~~ as a Planet centred on the Sun save by ~~a known who~~ (in some sense) putting myself ~~themself~~ in the Sun's position? How can LIFE's patterns be seen save by one who is properly situated to see them? No doubt I do not travel in human guise

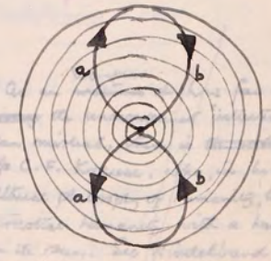
either to the Ionosphere or to the Sun, in order to see myself as LIFE or as EARTH: I am not so ~~foolish~~ foolhardy. No, I adapt myself perfectly to these difficult climates — so perfectly that, in the Sun, I am the Sun; in the Atmosphere, I am the Atmosphere. I don't mean the whole of me is these things, of course, but only that part which has come away to see what I am at various ranges. And so the story ~~of~~ that I (the I who looks outwards) have to tell about light is ~~that it is really an account of how~~ but it is my observer (the I who looks inwards) descending from his Sun-hood, passing through every region of myself, where he is seen in appropriate form, till here, at the centre of all my regions, he & I reach identity. At this point the view out & the view in are one, & ~~the~~ he who looks outwards & he who looks inwards are one.



a, b, c etc. are the different stations, in my regions, of my approaching observer. His approach is my analysis of his light.

CS Under carefully chosen conditions, this story of the descent of my observer through my regions may approximate to the scientists' story of the descent of light: as when the Sun shines in a bright sky & I am sitting under the trees with a friend. Sunlight is conditioned or 'digested' by the Atmosphere, then by the vegetation through which it is filtered, & which reflects in in all directions, then by the face of my friend, from which it is reflected to my eyes. Thus my observer is visible to me, & I to him, at each stage of his descent to man, & these stages correspond to the scientists' account. As a rule, however, some of these stages are missing & the scheme does not work out so nicely.

A. ~~Missing in appearance, but not in reality.~~ They are not missing. Supposing we move from under the trees, or the Sun goes down, or the sky is overcast, it ~~will~~ is still true that I see my friend ~~unless~~ ~~only shall not~~ would not — there would be no friend to see — unless the Sun had for many years been turning itself into the lightest Atmosphere, the lightest Atmosphere into plants, & plants into my friend. My observer comes to me at many different ratios (~~of~~ of which light is the fastest) & under many disguises, not all of which are simultaneously to be seen. But he is always my shadow or counterpart or alter ego, always on a level with me, yet always entering or approaching through my regions. ~~In fact~~ His breaking-down & building-up are not mine, but keeps pace with & accompanies mine, ~~or in accordance to mine. For only he my observer is in a position to experience what~~ ~~And yet~~ nevertheless they are mine, firstly, because, without them, my view outwards lacks ~~the~~ content, & secondly, because, without them, his view inwards lacks ~~the~~ content. And what is left of me when the view out & the view in are taken away?



My being consists in 'observation' (a), in 'being observed' (b), and in the process or movement of both (a) & (b).

10. Conclusion: the realisation of SUN-hood.

What am I? I am the SUN. And, says D.H. Lawrence, 'the sun makes man a lord: an aristocrat: almost a deity.' °

As I write these ~~few~~ words I know how absurd they would seem to one who, having opened the book at this page, had not followed the argument thus far. (Even to one who has read up to this point, ~~but does not finish the book~~ go out to will need to finish the book, if he is not to misunderstand my meaning.) To myself also, in some moods, the statement that I am the SUN does not make sense. Yet it is true. Of course it is only one of many equally true (& , on the average, less flattering) estimates of me, but that fact does not seriously lessen its importance. The point of this chapter is that ~~I am the SUN~~ the SUN is alive & is myself. Let me then, in closing the chapter, forget for the moment all the other things I am, to abandon myself to this one realisation.

Leaving on one side the arguments I have brought forward for holding such an opinion, do I find in myself an instinctive repugnance to it? Is it acceptable, not only to my intellect, but to my deeper nature, to the whole of me? The reasons for believing I am the SUN seem to be as cogent as the reasons for believing I am a man, but a good deal of me is unpersuaded. How, then, can I realise my SUN-hood? How can I become vividly aware of it in practice? A lot hangs on the answer, because awareness of SUN-hood is SUN-hood: I do not fully attain till I am conscious of attaining.+

It is time to be honest with myself. The situation is not at all as I have drawn it. Intellect does not ~~lead, but leaps at~~ precede intuition. The arguments I have gathered & sewn together (leaving, I know, many a gap) are an apron to give respectability to the conviction that was there all along. There is a crudeness about a naked belief of this kind, & not a little of the belief's value lies in the effort ~~its evokes~~ to dress it up in decent intellectual garments. But there is no doubt which comes first. ~~In some vague but~~ Vaguely, but with the assurance of direct insight, I come to know that I am the SUN.+ My task therefore is to see how this ~~seemingly~~ ridiculous intuition can be made to fit in with my ~~other~~ intuitions that I am a man, & with other intuitions that are equally insistent. (It is not that I believe because I find reasons, but I find reasons because I believe. This does not make the reasons bad ones, or superfluous. On the contrary, to try to bring one's inmost convictions to full consciousness, & at the same time to try to reconcile & integrate them, is to enrich & purify them: it is also to begin to distinguish them from mere prejudice.* Intuitions that are not so exercised soon become senile.)

Was the truest notions which, when half grasped, are the most nonsensical.

Most Reader's Wife
Down Essay to the Draft
Reflections on a Principle

The greater part of the world is to us as if it were nothing. But we cannot allow it to remain so, for this is intellect our own self. The entire world is given to us, & all our powers have their final meaning in the faith that by their help we are to take possession of our patrimony.

Tagore: Sadhana, (The Realisation of Beauty.) 2

Goethe re p. 9 1

+ We cannot give man "full credit, for anything that goes beyond his own view of himself," says Edward Caird. "He is what he thinks himself, & thinks himself what he is." Evolution of Theology, II, p 302. 3

Humble yourself, weak reason; be silent, foolish nature; learn that man infinitely transcends man. Pascal: Pensées, § 434. 4

+ ~~On this~~ In this connexion see Jung: Psychology of the Unconscious, p 127.

* As an ~~instance~~ exemplar of how far ~~wrong~~ the unexplained 'intuition' can mislead, there is ~~the case of~~ C.F. Krause, who, in his Ethical philosophy of humanity, links terrestial humanity with a humanity on the sun. See Windelband: Introduction to Philosophy, p 234. Krause, vaguely, had the right idea, which, because he did not really think it out, became the worst sort of nonsense.

"And, in the midst of all these concentric abysses", ~~you~~ Victor Hugo exclaims, "you would have me shrink & shrivel up into my ego! Into what ego? ... into the I of my flesh, into the I that eats, the I of my digestive apparatus, the I of ~~clay~~ my clay? .... You would have me refuse my adhesion to the indivisible! You would have me refuse to obey the law of gravitation! .... No. It may not be. The pancreas is not the sole consideration. The processes of my chyle, my bile & my lymph cannot be the goal of my philosophy. The sidereal universe is in question." ×

~~The Sun-god~~ It is not often realized how ~~need~~ serious a rival ~~cause~~ Sun-worship was to early Xtianity. Mithraism was the military religion of the Imperial frontier, but ~~before~~ before them "Greek literature is permeated with a kind of intense language about the Sun." (5 Stages IV p139)

× Intellectual Autobiography (Portscriptum de ma Vie): 'Things of the Infinite.'

~~Gump's fly sitting~~ the fly on the ~~axle of the~~ chariot-wheel, who said 'Look at the dust I raise', could at least have claimed to be at the hub: ~~I am far from the SUN's hub.~~ I lack own position in the SUN.

× (Not lastly to contract thy soul (+) is one of the maxims which a Roman Emperor laid down for himself:— to experience SUN-hood, & to deny that experience, is surely such a base contraction.

I have this first-hand experience of SUN-hood, which I try to make sense of. (I say SUN-hood, but this goes, of course, for ~~all~~ the other 'hoods', from man up, discussed in these chapters.) × There are occasions, infrequent but compelling while they last, when he seems to be coextensive with the SUN, just as, more often, he seems to be coexclusive with the little self's organ, an aching tooth, or with the State, or with the human body as a whole. It is as if he can feel at his back & ~~in~~ every part of this solar body, ~~with all his planets & his Sun~~ contained in herself, ~~Sun~~ he is a Star serenely contemplating his fellow-Stars. ~~It seems~~ Is he not more truly himself than he was ~~as a~~ a solitary human? ~~For, besides embracing~~ this human self, I include along with it all other selves that are in the SUN. But this is to intellectualize an experience which is, initially, quite simple and direct. "A star am I myself among stars" says the Mithraist initiate ~~in the Mithraic Liturgy,~~ "~~perambulating my orbit with~~ to the stars he encounters on his heavenward flight, "perambulating my orbit with you & shining forth from the depth." ⊙

Is this megalomania, or paranoia? To common sense ~~Surely~~ perhaps Man (unless he is only half-alive) is it is. ⊙ But let me complete my confession. ~~I am~~ not content to be a mere mortal. ~~This creature~~ is not big enough for him; its interests are not wide enough, its powers are not great enough, its pleasures are not exquisite enough. ~~It~~ Man is too young, too short-lived, too ~~lazy, hurt~~ little, too new, ~~too mean, too cowardly, too silly, too defective~~ in being only to be the real ~~self~~ self. Who ~~I do not~~ believes ~~I am~~ that he is this thing? ~~He~~ Who does not hunger & thirst after that which, while it remains outside ~~himself~~ him, is a limit & a challenge, ~~an determinant~~ but which is capable of being ~~to be drawn into~~ drawn into the circle of ~~myself~~ the self, ~~turning obstacle into~~ is its organ? ~~I have to~~ There is in each of us an urge to grow: we cannot live without growing. If this is megalomania, then I think it is a very general disease; ~~one that (I suspect)~~ I suspect it is one that all men, who are neither half-dead nor entirely dishonest with themselves, would admit they suffer from. It is human nature to remain dissatisfied. ~~Some do their best~~ We do our best to pacify the ravenous self with modest portions of the world, postponing the hunger for the whole. But we only whet the appetite. ~~of the self.~~

The healthy man, like Marcus Aurelius, ~~too~~ is not content to be an epsodeme, & as it were an excrescency of the world.' ×

If I am a living thing in the dead waste of the SUN, then I cannot rest till I have made it all over to myself, & so endowed it with my life. If, on the other hand, my little life is fed by the immeasurably vital SUN, then I cannot rest till I realize every need of mine & how it is met in him. Now the paradoxical truth is that both these relationships between man & the SUN exist, & that the one is the counterpart & condition of the other. * My ascent to SUN-hood, & my descent to utter dependence on the SUN, go together. I am at once much greater & much less great than common sense has any idea of. I am as self-contained, as vast, as independent, as the SUN himself, because that is who I am; and

He takes it over, realizing himself (if only in rare moments) as Earth & as Sun.

~~Thus~~ Bacchus of his degradation, reach then ~~when~~ in the words of K.B., clang more half-truths. ~~from Nature realize his~~ indeed realize his finitude, but the more he does so the more he transcends it: no merely finite creature can know it is finite. ~~Man's~~ ~~this~~ sin consists rather in his failure to realize that all recent involves lineal descent.

He from his small particular orbit flies
With blest outstanding! From himself he flies,
Stands in the sun, & with no partial gaze
Views all creation.... Coleridge: _____

He that thinks the Heavens & the Earth not his, can hardly own them.

~~"The orbs were mine, and so were the sun & moon & stars, & all the world was mine; & I the only spectator & enjoyer of it."~~ (+) Marcus Aurelius, Meditations, VIII, XLIX.

"You never enjoy the world aright, till the Sea itself floweth in your veins, till you are clothed with the heavens, & crowned with the stars: & perceive yourself to be the sole heir of the whole world, & more than so, because men are in it who are every one sole heirs as well as you."

Traherne: Centuries of Meditations, IV, 15.

A man's Me is the sum total of all that he CAN call his.

William James: Textbook of Psychology, p. 177.

Cf. Joseph's dream, Genesis

⊙ From the Mithraic Liturgy, a Greek papyrus in the Paris National Library, quoted by Robert Eisler: The Royal Art of Astrology, p. 61. Cf. Jane Harrison, Prolegomena, Appendix on the Orphic Tablets. (5 Stages 148)

He draw a circle that shut me out—
Heretic, rebel, a thing to flout.
But Love & I had the wit to win:
We drew a circle that took him in!

Edwin Markham.

Alb 481

⊙ Actually, to ~~not~~ to realize one's identity with nature is ~~a mere~~ not all there; ~~not right~~ 'forgetting himself', he insanity. Dr. William Brown writes: "It is the feeling of isolation from nature, animate & inanimate, which is the terrible thing, & which we find in such pronounced form among some of our mentally deranged patients." (Mind & Personality, p. 283)

× Meditations ii, XIV. p. 16.

* ~~To~~ It is ~~the fashion~~ customary in theological circles nowadays to insist on man's finitude & creatureliness, & ~~sinfulness~~ ~~sense of his sin consists~~ in his pretension to being ~~the whole of things~~. See, for instance, Reinhold Niebuhr: Nature & Destiny of Man, Vol I: "Man as .... is a sinner not because he is one creature individual within a whole but rather because he is betrayed, by his very ability to survey the whole, to imagine himself the whole." ~~This~~ Its implications is (a) to the extent that man is more than man he is also less than man, & (b) in becoming more & less than man he does not carry over his manhood to the other side.

I am a creature who is little more than a ~~bundle of needs~~ need of him: my life is his, without him I am nothing. To realise myself is (instead of a mere fragment of myself) perforce to realise him, since no other creature save a Star is capable of living in this Universe. (Vaguely, we all know this. Why else was it necessary for the Astronomer Royal to certify that (contrary to widespread rumours) a new star appeared in Orion on the night of Browning's death?

~~Finally~~. If common sense should still demur, consider what it is to be the SUN. It is, primarily, to enjoy other Suns, & to know one's own SUN-hood in & through theirs. I am not a Star on my own, unaided, or directly, but by virtue of ~~the~~ my companions. Common sense wants an illustration of how this works out in practice? Then take for example one of the methods of measuring the SUN: the spectrum lines of certain Stars are compared with the same lines after six months, when the Earth has changed direction; the observed displacement of the lines ~~of~~ — a Doppler effect — gives the clue to the Earth's orbital velocity, which in turn gives the clue to ~~its~~ her distance from the Sun.+ This is an illustration of the law that, at every level, I know myself in terms of my equals & companions. ~~What~~ My growth is, first & foremost, a question of my growing object. I grow by attributing growth. I am great by finding greatness that is not mine, yet ~~becomes mine~~ for that very reason becomes mine.* Only on this condition does Walt Whitman's claim hold good: "I match my spirit against yours you orbs, growths, mountains, brutes, (8) x By Blue Bulls's Shore: Copious as you are I absorb you all in myself ..."

And, finally, let me recollect that to grow to SUN-hood is, after all, not to grow at all. The SUN — it was decided in Chapter IV — is not bigger than the man: ~~as SUN, my contents have shrunk~~ its space corrects its size. The contents shrink — the container does not swell; ~~the~~ parts a succession of dwindle & vanish — the whole is constant. Therefore my ~~growth~~ expansion is at least as truly ungrowth as it is growth. ~~Since~~ Each level ~~has~~ puts its own value to space — a value such that, when I ~~am enlarged to~~ become a higher & more inclusive individual, my expansion is offset by the contraction of the space which is proper to the new level. To travel to the Entire is to transcend space by making the most of ~~space~~ it, by spying it out to the limit; to travel to the Whole is to ~~compass~~ transcend space by compressing all it into the least possible compass. Both movements involve expansion & contraction equally.

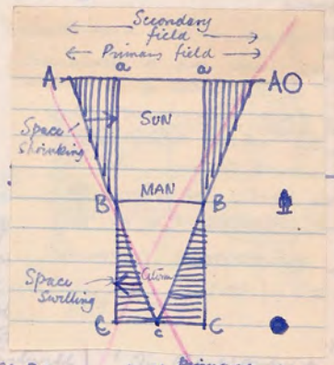
Carpenter, Comp Rel 231

To next chapter

+ See Smart: Astrophysics, p.42.

(8)

* "We are what we are most deeply interested in." says ~~Dean~~ Dr Inge. (Personal Idealism & Mysticism p.179)



CC-BB-aa is the ~~primary constant~~ field (see Ch IV, §5) but instead of naively accepting this field as constant & its contents as variable, I construct a secondary field that grows from C to AA, & place in it ~~constant~~ the two contents. Actually, ~~not only are both~~ both procedures are legitimate & complementary.