The Approaching End of the Age by H. Grattan Guinness – Part IV. Section I. Chapter II. Soli-Lunar Dominion in the Organic World.

Continued from Part IV. Section I. Chapter I. Chronology, Biblical and Natural.

EFFECTS OF LIGHT AND HEAT ON THE DEVELOPMENT AND DISTRIBUTION OF PLANTS AND ANIMALS AND OF THE HUMAN RACE.—DIURNAL AND SEASONAL CHANGES IN RELATION TO HEALTH AND DISEASE.

WE have traced the supreme and all-pervading influence which the “two great lights” appointed to rule the day and night exert in the production of inorganic terrestrial change. It remains to observe their effect on organized existences, on plants and animals, and on man himself. In this wide and interesting realm, as in the previous one, we shall find that solar influence is supreme.

Light and heat are the most powerful of all agents in the quickening and support of animal and vegetable life, and of these the sun is of course the great source and centre. By its presence or absence, are caused our day and night; and by its elevation or depression, our seasons. These, in their varied alternations, set in motion and control the entire world of organized existence.

What simplicity and sublimity in these solar revolutions and their results! The dawning of day is the signal for the world’s awaking from that deathlike sleep which is the child of darkness; with the rising of the sun the flowers open, the birds burst forth into song, and everywhere is seen the stirring of life and activity. The duration of the day sustains and nourishes the infinitely numerous and complicated organic movements and revolutions it has awakened, and its termination reproduces universal silence and repose.

Were the days considerably to lengthen or shorten, were the seasons to change or cease, how immense and disastrous would be the results to all organized existences! The permanence of seed-time and harvest, day and night, cold and heat, has been promised by the sure word of a gracious and bountiful Creator, and the accomplishment of that promise is effected by the permanence and stability of the earth’s actual relations with the sun. These may slightly

vary in the course of the prolonged secular changes, discovered by astronomic observation, but compensating powers exist which keep these changes within very narrow limits, and provide for the maintenance of equilibrium, thus securing that uniformity of solar influence, which is needful for the continuation of terrestrial life.

The inclination of the axis of the earth, to the plane of her orbit, for instance, is at present undergoing a steady, though very slow diminution. Were this to continue, unchecked, or to accelerate, a time must come sooner or later, when the equator and the ecliptic would coincide, and thus destroy the present succession of the seasons.

But this catastrophe will never happen; the all-wise Creator has provided for a continuance of the works of his hands. Before the movement of the earth's axis in this direction can produce any perceptible results, in changing the climate of any part of the globe, it will cease. The axis will, under fresh influences, remain steady for a time, and then commence a retrograde movement, which will restore it to its original position. It will thus oscillate to and fro in the ages to come, without ever deranging to the slightest extent, the climate of the various parts of the earth.

The extent of solar influence in the organic world, is marvellous to contemplate. The sun is the glowing ever acting heart of organic nature; the succession of day and night are the pulsation, the systole and diastole, the contraction and expansion of that heart. The sun is the all-important reservoir of life-supporting power, constantly sending its royal tide of vitalizing light and heat, through all the arteries of the mundane system, to its uttermost extremities, penetrating its utmost recesses and lowest depths, with its life-giving warmth.

Vegetable life, without exception, is generated under the sun's quickening influence; without it, not a seed would germinate, not a blade would spring, not a leaf would shoot; not a bud would burst, not a petal would unfold, not a flower would bloom, not a fruit would ripen. It alone raises and distils the dews and rains which feed and nourish the entire world of plants; it alone dyes the field and the forest with their verdure; it alone paints the blossom with its beauty, and tints with hues of loveliness both earth and heaven. It gives birth to the breezes, which stir the movements of every leaf and branch, scatter seeds and perfumes, and strip away all that has withered or yielded to decay. It is the joyful parent of spring, and the fruitful fount of summer wealth and autumnal glory.

Animals are equally indebted to the sun. Without it none of the innumerable forms of animal life could for a moment exist. Without its warmth all muscular power would be paralysed, the frozen blood would fail to circulate, respiration would cease, and life would inevitably become extinct. Its rising and its setting, its shining and withdrawing, its ascent in summer, its decline in autumn and winter, and return in spring, control the cycles and create the boundaries of all the phases of animated nature, the sleeping and the waking, the stillness and the activity, the silence and the song, the action, the passion, and the repose of innumerable tribes of living creatures, peopling air and earth and seas.

Man walks in its light, labours in its heat, basks in its smile, rejoices in its glory. It is the constant and irresistible ruler of days, and years, and seasons, and is enthroned as such, from generation to generation, and from age to age. In all these respects, it is the most glorious and sublime of all the material emblems of HIM, from whose creative fiat, it of old derived existence and dominion, and by whose unfailing power it is upheld; of Him who is the blessed and only Potentate, the King of kings and Lord of lords, the eternal and overflowing Source of light and love.

As the moon only reflects the sun's *light* in a very modified degree, and no perceptible portion of its *heat*, it exercises little direct influence on *organized* nature. Its indirect action upon the organized forms contained in, or affected by, the many seas, estuaries, and tidal rivers of the world, is very considerable. The existence of the immense variety of plants and animals which live on the shores or boundaries of sea and land, is to a large extent conditioned by the ebb and flow of tides. To man, the moon is a useful and beautiful night lamp, and an invaluable chronometer, while by its daily, world wide, tidal movement, it is as we have seen, next to the sun, his most powerful natural aid. It rules for him the night, and regulates his calendar, indicating by its movements, in conjunction with the sun, the measures of time which he universally adopts and follows.

A few familiar facts, illustrative of the above statements, may serve to give them the weight they deserve, and if any apology be needful for recalling natural phenomena, with the existence of which many if not most are familiar, it must be found in the necessity which we are under, of firmly establishing the great truth of soli-lunar dominion over terrestrial movement and change, in order to the due appreciation of the subsequent portion of this treatise.

Be it then remembered that the sun not only produces day and night, and the succession of seasons in each particular locality, regulating by this means, the growth and activity of organized nature, but by its various degrees of elevation in different latitudes, it causes all the varieties of climates, and through these, the development and distribution of vegetable and animal life throughout the world. These various degrees of elevation, causing the sun to afford varying degrees of light and heat, produce the different zones into which our globe, as regards climate, is divided. The principal zones are the equatorial zone, the tropical zones, the subtropical, the warmer temperate, the colder temperate, the sub-arctic, the arctic, and the polar zones.

Now *life*, whatever may be its origin, clearly depends for its continuance, on the physical conditions by which it is surrounded. According to the degrees of moisture or drought, heat or cold, the plant or animal flourishes, or languishes and dies. It is only in the case of certain plants and animals, that "acclimatization" under non-natural circumstances is possible, and even with these, it is possible only within certain limits, and by the greatest care. The flora peculiar to a region of excessive drought, will not survive removal to a region of excessive humidity, nor will ferns and marsh plants thrive in the desert. It is obvious, therefore, that on a globe where the sun produces such diversity of climate, life must exist under widely diversified forms. No region, save the extreme polar perhaps, is utterly destitute, of

it, but each has its own peculiar development. The intertropical regions of the earth, having in greatest perfection the conditions favourable to life, or in other words having a large share of solar heat and light, have an exuberant growth of vegetable life and a redundance (excessive proliferation) of animal existence. This decreases in each zone as we proceed towards the poles, till we reach the boundary, where a minimum of solar light and heat forbid the existence of any form of life.

Since temperature similarly decreases, as we ascend from the level of the sea into the higher regions of the atmosphere, vegetation varies, not only according to *latitude*, but according to *altitude*, The Alpine traveller may pass through the climates of the various zones in one day. He leaves the rich vineyards, and the flowering myrtle and pomegranate, the fruit-bearing orange and lemon-trees behind him, in the valley; passes through woods of oaks, sweet-chestnuts and beeches, as he mounts the lower slopes; and amid pines and birches, as he gains the higher parts of the mountain, till at last he finds only the short fine occasional pasture grass, and subsequently nothing but lichens and mosses, edging the beds of perpetual snow and ice. The vine disappears before he has climbed two thousand feet; the chestnuts have vanished at three; the oak fails to put in an appearance at four, and the birch long before he has climbed five thousand feet. The spruce-fir greets him as high as 5,900 feet, but even it goes no further. For nearly two thousand feet above this last of the trees, the beautiful rhododendron and other shrubs, cover immense tracts of the mountain side; the herbaceous willow, the saxifrages, the hardy dark-blue gentian and the grasses creep up to eight thousand feet, but only lichens and mosses go right up to meet the never melting snow which caps the mountain top.

It is the same in the world of waters. Marine plants are equally distributed in zones, and have also a vertical arrangement. *Depth* regulates heat and light for aquatic vegetation, and each successively deepening zone has its own peculiar forms of life. The ocean is divided into littoral, circumlittoral, median, infra-median, and abyssal or deep-sea zones; in this last only the microscopic “diatoms” exist, at a depth of over six hundred feet. The ordinary algae scarcely descend half that depth.

Animals have less precise geographical limits than plants, their powers of locomotion and self-dispersion modifying the influences which climate and external conditions have upon them. But there is a well marked horizontal and vertical arrangement of animals, from the equator to the poles, and from the sea level to the loftiest heights of land, and to the greatest depths of ocean. Thus the larger carnivora are pretty much confined to the tropics, as also the elephant, rhinoceros, and hippopotamus, the crocodile, boa, and larger reptiles, the ostrich, flamingo, parrots, humming birds, and the generality of birds of very brilliant plumage, together with a most varied and exuberant insect life, which for variety, size, activity, and brilliancy, attains its maximum in Brazil and the East Indies, decreasing towards the temperate zone.

The useful domestic animals—the horse, the ox, the sheep, the dog, are specially characteristic of the temperate zones, while the arctic regions have the polar bear and the reindeer, the musk ox, the wolf, the fox, and the

sable: few species, but many individuals, and all sober and quiet in hue, and clad in warm furs. Reptile life does not exist in the arctic zone.

It is the same as regards the sea-animals, their range is by no means universal. In the torrid zone are found a vast variety of genera and of species, and in colder latitudes, fewer species, but enormous numbers of individuals. So the fishes and shell-fish of the sunny tropic are of beautiful tints and hues, while the seals and whales of the arctic regions, are sombre and uniform in colour. The seal and the walrus never visit the torrid zone, nor are sharks ever seen in polar seas. The great majority of the food fishes are only found in perfection in the cool waters of high latitudes and though the sea water contains everywhere the same constituents, the coral insect builds his reefs only in the subtropical expanses of the ocean.

When we pass on to notice the effect of solar dominion on human development, and on the distribution of men on the earth, we at once perceive that it must necessarily be of a far more indirect character, than that exercised over plants and animals, and more difficult to trace.

Man has not only power of locomotion, but he is imbued with curiosity, ambition, and many other motives, which impel him to wander, and therefore, though it is now confessed by all naturalists, that scientifically speaking, all the various races of mankind constitute a single species of a single genus, yet we find this species, domesticated under every variety of climate, and able to subsist almost equally well between the tropics and in the polar regions. At first sight this would seem to indicate, that as far as the development of the race is concerned, mankind is independent of climatic differences. But this is far from being the case as a little consideration will show. Of the five great families into which the human race is divided, the Caucasian, Mongolian, Ethiopian, Malay, and American, the distinguishing characteristics have a marked relation to the climate, and consequent productions and physical peculiarities, of the lands inhabited by each. Man, it is true, can struggle against, or modify the physical conditions which surround him, but he is never independent of them. There can be no doubt that our own moderate climate, is more conducive to mental and bodily vigour, than is the relaxing heat of the great plains of Hindustan; nor that the slight differences of the seasons to which we have to adapt all our habits and pursuits, have a stimulating effect on energy and activity, lacking to nations who are subjected to excessively hot summers and cold winters. But for our insular situation, Englishmen would probably never have been the traders and adventurers they are, and but for our natural supplies of coal and iron, we should never have acquired the mechanical and manufacturing character we now possess. Climate, food, and landscape, influence mental as well as bodily character. We speak of “depressing weather,” of an “enervating” or of a “bracing” climate; of “inspiring” scenery, and so on, and the idea conveyed by these expressions, that the outer world affects the inner man, is true.

The White or Caucasian variety of the human family, is the one which exhibits in their highest degree, all the intellectual and moral powers of human nature. (**Note:** !?! I know many East Asian people who wouldn’t agree with

that! Isn't the Roman Beast *Caucasian*? Revelation 18:24 And in *her* was found the blood of prophets, and of saints, and of all that were slain upon the earth.) It belongs to the temperate zone in either hemisphere. (**Note:** Much of Asia is *also* in the temperate zone.) "Man presents to our view his most perfect type at the very centre of the temperate continent, at the centre of Asia-Europe, in the regions of Iran, Armenia, and the Caucasus, and departing from this geographical centre, in the three grand directions of the lands, the types gradually lose the beauty of their forms, in proportion to their distance, even to the extreme points of the southern continents, where we find the most deformed and degenerate races, and the lowest in the scale of humanity." "The indigenous man of America," says M, Guyot, "bears in his whole character, the ineffaceable stamp of the peculiarly vegetative character of his country. Living continually in the shadow of those virgin forests, which overspread the country he inhabits, his whole nature has been modified thereby. The very copper hue of his complexion, indicates that he lives not like the Negro, beneath the scorching sunbeams. His lymphatic temperament betrays the preponderance in his nature of the vegetable element. . . . The Indian has continued the man of the forest; he has seldom elevated himself above the condition of the hunter, the lowest grade in the scale of civilization; he has never ascended to the rank of the pastoral man. With him no domestic animals are maintained to feed him with their milk, or clothe him with their fleeces, as they are by the nomadic races of the Old World. From one to the other extremity of America we find the same lamentable spectacle. The people of the elevated table-lands of Mexico and Peru are the only exceptions to this picture, and this exception goes far to establish *the influence of the vegetative and humid lower plains of America*."

Thus it is evident that the advancement of man in civilization, depends in great measure on the physical conditions by which he is surrounded, and these in their turn depend, as we have seen, to a very large extent, on solar influence.

As the elevation or depression of the sun, with its resulting modifications of light and heat, in different latitudes, controls the distribution of plants and animals, and of the races of mankind; so its elevation or depression at different hours of the day and at different seasons of the year, at any one given place, influences the development of human and other organic life, at those hours and seasons, and thus more or less affects the period of *birth*, the diurnal and annual process of *growth*, the increase or diminution of *nervous and muscular power and activity*, the changes and periods of *disease*, the stages of *decay*, and the season and moment of *death*. Statistics prove that the greatest number of births occur in December, February, and March, and the fewest in June, July, and August—a fact that can be accounted for only, by some annual or solar influence.

All paroxysmal diseases appear at some particular hour of the four and twenty. It is a well known fact, that gout and all arthritic diseases, as well as many purely nervous affections, attack their victims at two o'clock in the morning, and cholera usually just before daybreak. The paroxysm of a quotidian ague comes on at four or five o'clock a.m., a quartan at four or five p.m., and a tertian at noon or soon after. A quotidian comes on when the

consumption of oxygen in respiration is at its lowest point, a tertian when it is at its highest. They also appear at one certain definite point in the deviation of the magnetic needle, and terminate at another. The barometer also is of its minimum variation when the paroxysms come on, and at its maximum when they end.

Hppocrates says: Diseases of every kind may arise in any season of the year; others, however, increase, and are excited only in particular seasons.” He then gives a list of the complaints peculiarly rife in each of the four seasons, which, though written two thousand years ago, is perfectly applicable to the case of Greece, in the present day.

“Spring and fall” have long been popularly known, as the seasons in which cutaneous (relating to or affecting the skin) eruptions are most apt to appear, and the habits of some of the exanthemata (a widespread skin rash) render it probable that there is a determination to the skin at these seasons. In pellagia (a skin inflammation), according to Dr, Holland’s observations, the cutaneous affection remits in autumn, and recurs in the spring, with increased severity.

Diseases which arise from exoteric causes, at different periods of the year, way be arranged in two classes. Increase of heat produces decrease of density in the atmosphere; at each inspiration less oxygen is conveyed to the lungs in summer therefore, than in winter, less carbon is in consequence excreted by the lungs, and hence the necessity for increased action on the part of the liver, during the hot months. Thus liver complaints are more frequent in hot weather and in hot countries. The perspiratory organs of the skin are also more active in summer, and other secretions are proportionally diminished. Various diseases result from these and similar changes in the seasons. Another class arise from purely external causes, as hay fever, marsh and jungle fevers, sunstroke, etc. The action of remedies varies also under these circumstances. Diseases of the respiratory organs, being largely affected by temperature, are more frequently fatal in winter, than at any other season.*

Deaths from Diseases of the Respiratory Organs.		
1840	Summer	2981
	Autumn	2999
1841	Winter	4732
	Spring	3943
Deaths from Measles.		
1840	Summer	301
	Autumn	251
1841	Winter	346
	Spring	102
Deaths from Scarlatina.		
1840	Summer	436
	Autumn	534
1841	Winter	294
	Spring	125
Deaths from Small-pox.		
1840	Summer	213
	Autumn	381
1841	Winter	850
	Spring	354

Diseases.	*Deaths in Summer and Autumn, 1840.*	*Deaths in Winter and Spring, 1841.*
Respiratory Organs	5982	8675
Measles	552	448
Scarlatina	970	419
Small-pox	594	1204

Lancet, 1842–3. Vol. ii., p. 829.

Nor is it in the case of disease only, that this all-prevailing soli-lunar influence is perceptible, It has also a marked effect on certain perfectly natural and healthy phenomena, of which, in a subsequent chapter, we will speak more particularly.

Schweig inquired into the mortality at various hours of the day. The following table shows the result: —

Morning.

	4–5.	5–6.	6–7.	7–8.	8–9.
Winter	95	109	116	115	113
Summer	120	119	99	100	107

Evening.

	4–5.	5–6.	6–7.	7–8.	8–9.	9–10.
Winter	103	114	81	77	105	111
Summer.	111	119	132	82	86	110

How it affects these, it may be difficult to explain, but that it does so is an incontestable fact. These phenomena are based on healthy and natural revolutions of the system, and may be dependent on cyclical processes inherent in the system itself, or on periodic agencies acting from without, or they may result from a combination of these two; that is, the causes may be esoteric, exoteric or endexoteric.

The following tables show the hour of the day most influential in determining death from consumption:—

Deaths in Berlin in 1836 *from Phthisis.*

Midnight to six o'clock a.m.	165.	Ratio per 1000		220.
Six o'clock a.m. to noon	220.	,, ,, ,,		294.
Noon to six o'clock p.m.	197.	,, ,, ,,		263.
Six o'clock p.m. to midnight	167.	,, ,, ,,		223.
Total	749 cases.			1000.

Deaths from Phthisis in Carlsruhe in Eleven Years.

Midnight to six o'clock a.m.	187.	Ratio per 1000		239.
Six o'clock a.m. to noon	218.	,, ,, ,,		280.
Noon to six o'clock p.m.	195.	,, ,, ,,		250.
Six o'clock p.m. to midnight	180.	,, ,, ,,		231.
Total	780 cases.			1000.

Med. Quarterly Review. No. 35, p. 175.

	Maximum.	*Minimum.*
Variations in the barometer :—		
(*a*) Near London, 1807 to 1815	December	July.
(*b*) In the Deccan	December or January	July.
Variations in the hygrometer	January	July.
,, ,, thermometer	July or August	January.
Amount of evaporation	July	January.
Number of births (Belgium)	February	July.
,, ,, deaths (Beglium)	January	July.
Cases of Insanity	June or July	December or January.
,, ,, Suicide	Summer	Winter.
Crimes against persons	June	January.
,, ,, property	December	July.

Dr. LAYCOCK. *Lancet*, 1842-3, p. 828.

The most important of these alternations, proper to the system is that of activity and repose. During sleep the nervous system undergoes a remarkable functional change, the brain and nerves being more or less physiologically paralysed, as the sleep is more or less profound. *

* "The period of repose or sleep may be defined generally as extending from ten or eleven o'clock, p.m., to four or five, a.m.; and I would here remark, that there is a numerous class of affections of the nervous system, which I have elsewhere termed neuraemic, resembling sleep in this, that they are dependent on some temporary change in the functions of the brain itself, apparently connected with a disturbance of the capillary circulation of that organ, or, perhaps, with some passing change in the composition of the blood, but, like sleep, unconnected with any appreciable alteration in the structure of

the brain. *Many, if not all affections of this class are periodic;* and it is obvious that these, as well as all other diseases primarily dependent upon morbid functional derangement of the nervous system, *are most likely to appear when the natural functional derangement is greatest*: that is to say, about two o'clock in the morning, when sleep is most profound. Probably connected with this periodic change in the nervous system, are *the equally periodic changes in the functions of the heart, lungs, etc., observed by physiologists to occur diurnally*. Dr. Prout found THE CONSUMPTION OF OXYGEN GAS IN RESPIRATION to vary during the day as follows:—The maximum consumption is from eleven o'clock, a.m., to one o'clock, p.m.; it then gradually decreases to a minimum about half-past eight, p.m., at which point it is stationary until half-past three o'clock, a.m, "The amount then suddenly increases; at first slowly, to its maximum, about noon; and from this point it almost immediately begins to sink, at first quickly, to its minimum, at half-past eight, p.m. Dr. Prout conceives that THESE VARIATIONS ARE REGULATED BY THE PRESENCE OR ABSENCE OF THE SUN. THE CIRCULATION has also its regular periods of change. So long ago as 1815, Mr. Knox inferred, from a series of observations, that during the morning the mere change from the horizontal to the erect posture renders the pulse more frequent by about fifteen or twenty beats; at mid-day the increase is about ten, and in the evening four or six. Mr. Knox, some years subsequently, confirmed these results, and showed that the diurnal revolution, both as to numbers and excitability, is altogether independent of food or exercise. More recently Dr. Guy has come to almost similar conclusions. According to his experiments, "the effect of change of posture is *greatest in the forenoon*, and *least in the afternoon*, the effect in the evening being the mean between the other two; and the effect produced by change of posture on the same frequency of the pulse in the afternoon, forenoon, and evening, respectively, is as the numbers eight, nine, and ten."

Dr. Guy states that the observations of Nick, published at Tiibingen in 1828, are equally corroborative of Dr. Knox's views.

DIURNAL CHANGES IN THE INSANE. A diurnally periodic state of excitement of the system generally has been observed in the insane, as *a priori* might be anticipated. Dr. Allen made observations regarding this point on the insane patients under his care. . . . The first period of *increase* excitement is from four to half-past nine in the morning, and the second period is from four to half-past nine in the evening. The periods of diminished excitement extend from half-past nine, a.m., to four, p.m., and from half-past nine, p.m. to four, a.m., the hours corresponding very closely with Dr. Prout's observation. IT Is OBVIOUS THAT THESE CHANGES IN THE NERVOUS, RESPIRATORY AND CIRCULATORY SYSTEM MUST NECESSARILY INFLUENCE IN SOME DEGREE THE TIMES OF ACCESSION OF ALL DISEASES, but particularly of the paroxysms of intermittents."—Dr. Laycock.

The foregoing facts prove that in appointing the sun as the great time-measurer, the Creator selected the physical ruler of the world, the lord paramount of all its movements, the source of its entire life and activity, of its rotation, revolution, heat, light, seasonal differences, magnetic impulses, and tidal changes; of its winds, waves, and currents; its rains, snows. and frosts; of the actual distribution of its plants and animals; and of many important phenomena connected with the course and development of the human race itself.

The sun and moon are all-powerful in their influence over the earth; no one, no thing, is unconscious of their presence or absence; they control this globe, in all its movements and changes, from the most obvious and sublime, to the most occult and complicated; not an atom of matter is uninfluenced by them, nothing can resist their might or alter their movements. Those movements, conspicuous, periodical, regular, and adapted as they are to the necessities of the animal and vegetable creation—produce our times and seasons. The periods measured by their simple primary revolutions, we call days, months, and years, and our ordinary computation of time is by fractions

or multiples of these; while their vast and secular motions afford superior standards, for the measurement of longer and slower changes in the history of the earth, and of the human race.

The facts then of the all-controlling *potency* and of the accurate *periodicity*, of the two great rulers of our globe, the sun and the moon, impart to the greater and lesser SOLI-LUNAR MEASURES OF TIME a vast and supreme importance. Any system of chronology which neglects the periods resulting from their sole and joint movements, is an unnatural and unstable system. On the other hand the fact that the events and cycles of human life and progress, of history and of prophecy, from the most minute to the most extensive, measured by soli-lunar chronology, fall into order, and arrange themselves into a symmetrical system,—such a fact, if it can be demonstrated, will be in evident harmony with the established order in nature.

The periods resulting from combined solar and lunar movements, must therefore, in the investigation of the world's chronology, be allowed to have a place of paramount importance. To ignore them, is to ignore the golden clue to the complex labyrinth; while patiently and consistently to employ them, is to follow the guidance granted by the great Creator, through the phenomena of creation,—the only way of attaining scientific truth.

We turn therefore now to observe the remarkable fact, that many vital phenomena of world-wide and unceasing occurrence, and many historic and prophetic periods, of the first importance in the annals of humanity, have, when measured by these minor and major soli-lunar revolutions, a singular, septiform, chronology, which stamps them as parts of one and the same system.

Continued in Part IV. Section II. The Law of Completion In Weeks. Chapter I. The Week in Relation to the Periodicity of Vital Phenomena.