

Johannes Kepler: Somnium (The Dream)

## **SOMNIUM**

*A Translation by Reverend Normand Raymond Falardeau, S.S.S.*

In 1608 when discords raged between the two brothers, Prince Rudolph and the Archduke Matthias, the populace scrutinized their actions, comparing them with examples taken from Bohemian history. At that time I was driven by the same curiosity to apply myself to the study of Bohemian legends. When I chanced upon the legend of the Libyan virago, so celebrated in the art of magic, something happened. On a certain night after I had attentively contemplated the Moon and the stars I peacefully settled on my couch and fell into a rather deep sleep. In my sleep I seemed to have picked up a book, from the bookshelf to read it through. The drift of the book was as follows

My name is Duracotus and my fatherland Iceland called Thule by the ancients. My mother, Fiolxhild who died recently left me at leisure to write something which I already ardently desired to do. While she lived she diligently saw to it that I did not write, for she said that there were many malicious usurpers of the arts, who, because they did not understand anything, on account of the ignorance of their mind, misrepresented them and made laws detrimental to the human race. Under these laws, many men would assuredly have been condemned and swallowed up in the abysses of Hekla. What my father's name was she never told me. She asserted that he was a fisherman who had die at the age of one hundred and fifty when I was three years old. He had been married for seventy years more or less.

In my early childhood, my mother led me by the hand or, lifting me up in her arms frequently brought me to the lower ridges of Mount Hekla especially around the feast of Saint John when the Sun, visible for 24 hours, leaves no room for night. She gather many herbs and at home cooked them with various religious rites. She made small sacks from goat skins and when these were inflated with herbal concoctions, she brought them to the neighboring harbor to be sold to placate the captains of the ships. Thus she provided herself with the means of sustenance.

Out of curiosity on one occasion I had opened one of the sacks. My mother unaware of what had happened sold it. I had taken out the herbs from the

linen cloth, ornamented with needlework and displaying various symbols. By opening this sack I had defrauded her of her profit. My mother, inflamed with rage, said that she would give me to the skipper as his own in place of the sack, so that she could keep the money. On the next day he unexpectedly set sail from the harbor under a favorable wind bound for the Island of Norway. After several days under the rising north wind, he was brought between Norway and England. He passed through the channel and made his way towards Denmark because he had letters of an Icelandic Bishop to be delivered to Tycho Brahe, the Dane, who lived on the Island of Hveen. Then a fourteen year old boy, I was growing seriously ill by reason of the tossing of the ship and the unusual temperature of the air. When the ship had been landed along with the letters the skipper left me there in the home of an island fisherman and set sail again with the promise of returning.

After the letters were handed over, Brahe in a very cheerful mood began to ask me many questions. I did not understand him because I did not know the language except for a few words. He gave all his time to his students, whom he cared for in large numbers. Through Brahe's liberality they could frequently speak to me. With a few weeks' practice I began to speak Danish in a tolerable way. I was no less prepared to answer them than they were to question me. I marveled at many unfamiliar objects. I recounted many recent happenings in my fatherland to my admirers.

Finally, when the ship's captain returned to take me back, Brahe kept me. This made me exceedingly happy.

Astronomical exercises pleased me to an extraordinary degree. For whole nights Brahe and his students devoted themselves to the study of the Moon and the stars using wonderful machines. This practice brought my mother back to mind since she also frequently conversed with the Moon. By this stream of events, although I was considered a semi-barbarian on account of my birthplace and indigent circumstances, I came to a knowledge of the most divine of sciences, which prepared my way for greater accomplishments.

After living on this island of Hveen for several years, I desired to revisit my native land. On account of the science I had acquired I supposed that it would not be difficult me to rise up to some degree of honor in my own nation of unskilled men. I asked and obtained permission to depart from my patron, bade him farewell and came to Copenhagen. My traveling

companions freely took me under their protection because of my familiarity with their language and country. I returned home five years after I had left.

My first source of joy upon my return was to find that my mother was still living and rendering the same services that she formerly did. Since I was still alive and provided with a means of livelihood, I put an end to her continual sorrow for having abandoned her son in a fit of anger. Autumn was approaching and those long nights of ours were drawing near. In December the Sun, scarcely rising a little at noon, is again hidden from sight. My mother stayed close to me now that she was free from her work and did not leave me no matter where I went. Because of my letters of recommendation, I was questioned about the lands I had visited, and even questions concerning the heavens. My mother took pleasure in comparing the extent of knowledge I had gathered and what she herself discovered as true. She declared that she was now ready to die so that she could leave her son heir to that information which she alone possessed.

By nature I had a real thirst for learning new things. So I asked my mother about her art and which teachers in her country stood out above the rest. Then, on a certain day, when there was leisure for her to speak, she repeated in this manner all she knew from the very beginnings: Duracotus, my son, knowledge is available not only in other provinces to which you traveled but also in our own homeland. You have made me realize the enchantment of other regions. But even if we have coldness, darkness and other discomforts which I now feel oppress us, we still abound in people with talent. We have among us very gifted spirits who shunned the greater light of other regions and the chattering of men and they sought our shaded areas to converse familiarly with us. Of these spirits nine were important. One of these, by far the gentlest and most innocent, was particularly known to me. This spirit was disclosed by 21 marks. Often, in a split second, I was transported by its power to other shores which I selected for myself. If I were kept away from certain places on account of their distance, I gained ground by questioning about those places just as if we were present there. He reviewed for me very many facts about those objects that you had examined with your eyes, accepted from report, taken out of books. I would especially like you to become a spectator, my companion, of that region concerning which he told me. How wonderful were those things which he told me about it. He conjured up Levania.

Without delay, I agreed that she should summon her teacher. I sat in council, prepared to hear both the entire purpose of the journey and the description of the region. Spring was upon the region. As soon as the Moon was in crescent, it began to shine forth since the Moon was in crescent, it Sun had hidden under the horizon joined to the planet after the Sun had hidden under the horizon joined to the planet Saturn in the sign of Taurus. My mother, withdrawing from me into the nearest crossroads and uttering cry few words in a loud clamor set forth her request. After she completed the ceremonies, she returned and demanding silence with the palm of her right hand outstretched she sat down near me. Scarcely had we hidden our heads with a cloth (as was the custom) when behold, there arose the hawking of a hoarse lispng voice and immediately it began to speak in this way, but in the Islandic language.

### **The Daemon from Lavania**

The island of Levania is located fifty thousand German miles high up in the air. The journey to and from this island from our Earth is very seldom open; but when it is accessible, its easy for our people. However, the transportation of men, joined as it is to the greatest danger of life, is most difficult. We do not admit sedentary, corpulent or fastidious men into this retinue. We choose rather those who spend their time persistently riding swift horses or who frequently sail to the Indies, accustomed to subsist on twice-baked bread, garlic, dried fish, and other unsavory dishes. There are dried up old women especially suited for our purpose. The reason for this is well known. From early childhood they are accustomed to riding goats, or on mantles, and to travel through narrow passes and through the immense expanse of the Earth. Although Germans are not suitable, we do not reject the dry bodies of Spaniards.

The whole journey, far though it may be, is completed in four hours at most. Our departure time happens when we are busiest, before the Moon begins its eclipse in its eastern section. If the Moon becomes full while we are still on our way, our return journey is impossible. The occasion becomes so brief that we have few humans and not any other beings except the most helpful toward us. Forming a column we seize any man of this kind and all of us pushing upward raise him to the heights. The initial shock is the worst part of it for him, for he is spun upward as if by an explosion of gunpowder and he flies above mountains and seas. On that account he must be drugged

with narcotics and opiates prior to his flight. His limbs must be carefully protected so that they are not torn from him, body from legs, head from body and so that the recoil may not spread over into every member of his body. Then he will face new difficulties: intense cold and impaired respiration. These circumstances which are natural to spirits are applied force to man. We go on our way placing moistened sponges to our nostrils. With first section of the voyage complete, our conveyance becomes easier. Then we expose our bodies freely to the air and withdraw our hands. All these persons are gathered into a ball within themselves, by reason of pressure, a condition which we ourselves produce almost by a mere sign of the head. Finally, on arrival at the moon, the body is directed into its intended place by its own accord. This critical point is of little use to us spirits because it is excessively slow. Therefore, as I said, we accelerate by gravity and go in front of the man's body, lest by a very strong impact into the Moon he might suffer any harm. When the man awakes, he usually complains that all his members suffer from an ineffable lassitude, from which, however, he completely recovers when the effect of the drugs wears off, so that he can walk.

Numerous other difficulties occur which would take too long to recount. Nothing happens to us that is entirely evil. How long those shadows of the Earth are which we inhabit on the moon in a compact manner! When these men have reached Levania, we are at hand. They seem to be climbing from a ship on to land. There we speedily withdraw into the caves and gloomy places lest the Sun at present in the open but about to eclipse a little later from a pleasant resting place, casts us out and forces us to follow the departing shadow. Our ingenuity exercises itself in moments of decision. We join ourselves to the daemons of this province and a society begins when the Sun first begins to fail the locality. Gathered together in crowds we deviate from our course into the shadow. And if the shadow hits the Earth with its sharp point, which often happens, we shall fall heavily upon Earth and our fellow soldiers, for we are allowed no other result when men have witnessed the Sun's eclipse. From this it follows that the eclipses of the Sun are dreaded.

As a consequence, these comments shall be made about the journey into Levania. I shall speak about the shape itself of the province, beginning as do geographers with those things which happen to it from above.

Even if the whole of Levania has the appearance of fixed stars in common with us, yet one observes very many movements and numbers of planets different from those which we see from Earth so that all of their astronomy has another meaning.

Just as geographers divide the Earth's globe into five zones due to celestial phenomena, so Levania consists of two hemispheres, the one of the Subvolvans, and the other of the Privolvans. Of these two hemispheres, the Subvolvans always see their Volva, or our Earth, which to them is like our Moon, and the Privolvans are completely deprived of the sight of their Volva. The circle dividing their hemispheres, similar to our solstices' colure, passes through the poles of the world and is called divisor.

I shall explain first what is common to both hemispheres. All Levania suffers the same alternations of day and night as we do, but during the year they lack other annual changes. Throughout Levania its days are almost equal to its nights, except for the fact that for the Privolvans each day is regularly shorter than its own night whereas the Subvolvans' day is regularly longer. What is altered in an eight-year cycle will have to be mentioned later on. Under both poles half of the Sun is concealed for the equalization of the night, the other half shines, forming a circle around the mountains. Because the stars are moving, Levania seems to stand no less motionless to its inhabitants than our Earth to us. One of our months equals one of their nights and a day. When the Sun is going to rise early in the morning, almost a completely new sign of the zodiac is more apparent the day after rather than the day before, Just as in one of our years the Sun revolves 365 times and the orbits of fixed stars 336 times; or more precisely, in four years the Sun revolves 1461 times but the orbits of fixed stars 1465 times for us, so for them in one year the Sun goes around 12 times, the orbit of fixed stars 13 times; or more precisely, in 8 years the Sun goes around 99 times, the orbits of fixed stars 107 times. But they are more familiar with a 19 year cycle. In that number of years, the Sun rises 235 times and fixed stars 254 times.

The Sun rises in the central or innermost parts of the Subvolvans when the last quarter is visible to us; then to the innermost parts of the Privolvans when the first quarter appears to us. What I say about the central parts must be understood of all the semicircles led through the poles and the

middles at right angles to the divisor. You can call them the semicircles of the Medivolvans.

The circle that is the intermediate between poles producing the same effect as the equator of our Earth will be called by the same name. It cuts the divisor into equal parts and the Medivolva in opposite points. The Sun passes over some places on the equator on two opposite days of the year precisely at the point of noon. At midday the Sun digresses from the zenith to the others dwelling on both sides of the poles.

On Levania there is some variation of summer and winter but that must not be compared with our own nor as we have in the same places at the same time of the year. In a ten-year period their summer changes from one part of the star-year to the opposite part, from the same intended place. In a 19 star-year cycle or in 235 days, summer occurs 20 times and winter just as often towards the poles, and at the equator 40 times. Just as we have our months they have 6 days in all during the summer, the rest belong to winter. The same alternation is scarcely felt around the equator because the Sun does not digress to the sides beyond 50 backwards and forwards from those places. It is felt more next to the poles and those places that have or lack the Sun alternately at six-month intervals just as there are on Earth those of us who dwell under one of the two poles. Levania's globe is also divided into five zones corresponding somewhat to our terrestrial zones; that is, the Torrid and Frigid Zones have scarcely 10 degrees each; all the rest falls in proportion to our Temperate Zone. The Torrid Zone passes over through the middle parts of the hemisphere, half its length through the Subvolvans, the other through the Privolvans.

There are four cardinal points to the sections of the equator's and the zodiac's circles. We call these points equinoxes and solstices, and from these sections is the start of the zodiacal circle. From its beginning to its consequence the motion of fixed stars is very swift, namely twenty tropical years, that is, defined by one summer and one winter. Fixed stars cross through the whole zodiac which we do in about 26,000 years, So much for its first motion.

The cause of their secondary motions differs no less from those which appear to us although much more intricate. Besides the many inequalities existing between ourselves and all six planets, Saturn, Jupiter, Mars, the Sun, Venus, Mercury, they have three others that occur; namely, two of

longitude, one diurnal, the second through the cycle of 8 1/2 years and the third of latitude through a 19-year circuit. The Privolvans' centers have the Sun at noon more than their other counterparts whereas the Subvolvans have it less than if the Sun rises. Both are of the same opinion that the Sun inclines towards the Subvolvans for a few minutes, back and forth from the ecliptic and then among those fixed stars. These variations, as I have said, are restored in the space of 19 years into their former marks. This wandering takes hold of the Privolvans somewhat more, somewhat less of the Subvolvans. Although the Sun and the fixed stars are set to fall equally around Levania by its first motion, yet the Sun increases for the Privolvans at midday but nearly nothing beneath the fixed stars. At midday the Sun appears very swift for the Subvolvans although the contrary is true about the middle of the night. As a result, under the fixed stars the Sun is seen to make certain leaps as it were, separate ones for each individual day.

The same is true on Venus, Mercury and Mars, but on Jupiter and Saturn they are almost imperceptible.

Yet every day's motion is not even the same each day at similar hours. However, it is sometimes slower with the Sun than with all the fixed stars, yet faster in the opposite part of the year at the same hour. This lassitude goes back and forth through the days of the year in such a way that it now occupies summer then winter which feels the swiftness in another year. All this occurs in one absolute cycle through a little less than nine years. The day becomes longer than the night (by a natural slowness, not as we have it on Earth by an unequal section of the orbit of a natural day).

Though the slowness falls upon the Privolvans in the middle of the night, it accomplishes its deviation before another day; if, on the other hand, it is completed during the day, then night and day are equal because it happens once in 9 years. This is completely changed for the Subvolvans.

Such characteristics are found common to both hemispheres.

### **Concerning the Privolvan's Hemisphere**

What belongs separately to each hemisphere is the great diversity between them. Not only the presence and absence of Volva display quite dissimilar spectacles, but these common phenomena themselves differ so greatly here and there in their effects that one could perhaps more correctly call the



Privolvian hemisphere intemperate the Subvolvian temperate. The Privolvians' night lasts 15 or 16 of our days, terrible with never-ending shadows, as are our moonless nights. The rays of the Volva never light upon them. For this reason everything becomes stiff from the ice, the frost and from the sagest and most powerful winds. One day ensues, 14 of our days long, or a little less than that in which the Sun appears larger. The Sun is slow under fixed stars and there are no winds. Then, it becomes intolerable hot. Thus for the space of one of our months or of one Levanian day and in one and the same place, the heat becomes 15 times hotter than our Africa, and the cold, unbearable.

Especially should it be noted that the planet Mars is sometimes observed by those in the central parts of the Privolva at midnight and for others at the beginning of their own night, as almost greater than double what we see.

### **Concerning the Subvolvians' Hemisphere**

As I cross over to this hemisphere, I begin with its frontiersmen who inhabit the divisor circle. Particular to them is the fact that they observe the digressions of Venus and Mercury from the Sun as much greater than we do. To these same people Venus appears at certain times as greater than double our view of Venus, especially to those who live at the North Pole.

The most pleasant of all occupations on Levania is the contemplation of its Volva. Levanians enjoy the sight of their Volva as we do our Moon which the Privolvians lack completely because they are deep within. Because of their Volva's perennial present this region is called Subvolva just as the rest is called Privolva because it has been deprived of the view of its Volva.

When our Moon rises full and goes over distant homes, we Earth-dwellers see it as equal to open circle of a large wooden keg. When it rises to the middle of the sky, the Moon brings to mind something like the form of a human face. The Subvolvians see their Volva in the middle of their own sky. (The Volva takes this position for those who dwell in the middle or the navel of this hemisphere) with a diameter a little less than four times longer than our Moon to us so that if we set up a comparison of disks, their Volva's surface is fifteen times greater than our Moon. To those whose Volva continuously cleaves fast to their horizon, it appears in the shape of a distant fiery mountain.

Just as we differentiate our regions by means of greater or lesser elevations of the pole although we do not necessarily see the pole itself with our eyes, so the altitude of their ever present Volva fulfills the same need for them, varying as it does in different places.

As I said, the Volva hangs directly over certain places whereas it seems to have been sucked down close to the horizon's circle for the remaining regions. In every place it gives evidence of an ever constant altitude.

Still the Subvolvans have their own poles which are not among those fixed stars, where we have the poles of the world but around other fixed stars, then these are ecliptic signs of the poles for us. In 19 lunar years these poles pass through small circles around the poles of the ecliptic under the constellation Draco and its opposites, Xiphias [Dorado] and Passer [Piscis Austrinus] and Nebecula Major [Large Magellanic Cloud]. When these poles, in one-fourth of a circle, are away from their Volva, so that the regions can be classified both according to the poles and according to the Volva, it is apparent how great is the advantage with which they surpass us. These poles mark the longitude of places by their immobile Volva and mark the latitude by both their Volva and their poles. This differs for us because we have no means of obtaining our longitudes except a most subservient and scarcely distinguishable inclination of a magnetic needle

The Subvolvans' Volva remains as it were fixed with a nail to the heavens and is immobile in this place. Other stars and the Sun itself cross over from sunrise to sunset. Nor is there any night in which none of the fixed stars in the zodiac hide themselves behind this Volva and emerge once again from the opposite region. Although the same fixed stars not accomplish this every night, still they all change completely among themselves; is, those that move up to 6 or 7 degrees from the ecliptic. In 19 years the whole circuit is made so that they return exactly to their original positions.

The Subvolvans' Volva neither increases nor decreases any less than our Moon. The same cause exists for both the presence of the sun or the digression from the Volva. If study its nature, the time is the same; but the Subvolvans measure them by one method, we do so by another. Subvolvans think that one day and one night is the space of time during which all the increases and decreases of this Volva are completed. We call this space of a time a month. The Volva rarely hides itself from the Subvolvans even in new Volva on account of its size and brightness, especially for the Subvolvan

polar dwellers who lack the Sun at the time. At midday the Volva turns its extremities upwards for the Subvolvans in the interval period itself. In general, for those who dwell between the Volva and the poles under the medivolvan circle, the new Volva is the sign of noon and the first quarter of evening. The full Volva separates equal parts of the night, and the last quarter brings the Sun back. Those who have the Volva and the poles set on the horizon live at the intersection of the equator with the divisor. Their morning and evening comes in the new and full Volva, their midday or midnight, in the quarters. From these observations we can draw conclusions about those who dwell between those places described above.

The Subvolvans differentiate the hours of the day by means of these and other phases of their Volva so that the closer the Sun and Volva come so much the closer is midday for the Subvolvans and evening or sunset for the Medivolvans. The Subvolvans are much better equipped than we are to measure out the periods of night which regularly last 14 of our hours. We said that outside that sequence of phases of the Volva, whose full Volva marks the middle of the night for the Medivolva itself, the Volva already distinguishes their hours. Although the Volva seems in no way to change place, yet our Moon, on the contrary, revolves within a place and adequately explains the surprising number of marks which persistently change from its rising to its setting. When the marks return after one such revolution, the Subvolvans have one hour in time equal to a little more than one of our days and nights. This then is the only uniform measure of time. We have indicated above that the Sun and the stars daily go around the Moon-dwellers in an uneven way from the fact that this perturbation of the Volva especially projects itself, if you compare it with the prolongations of fixed stars from the Moon.

The upper northern section of that Volva seems to have two halves; that is, one that is rather hidden, as it were covered with continuous marks, and the other somewhat clearer, spreading in the north a bright cincture on the dividing line of both. The figure is difficult to explain.

On its more easterly section we perceive something like the front of a human head, cut off ~ at the shoulders, bending over to kiss a little girl clothed in a long robe while her arm stretches backward and lures a leaping seducer. The wider and larger part of the spot projects itself toward the west without any visible shape. In the other half of the Volva a brightness is spread more widely than the spot. You might call it the image of a bell

hanging down from a rope swinging toward the west. The upper and lower parts cannot be compared with anything.

It is not sufficient that the Volva distinguishes the Subvolvan hours of the day in this way, but rather that it give clear indications of the parts of the year if anyone pays attention to it or if the purpose of fixed stars escapes anyone. When the Sun passes into Cancer, the Volva clearly indicates the North Pole of its perturbation. There is a certain small dark spot above the image of the girl, inserted into the middle of the brightness. This brilliance is moved from the highest and furthest section of the Volva toward the east; and from here, once it has made the descent into the disk, is moved toward the west. The mark again withdraws from that last position into the top of the Volva toward the east and always appears there. But when the Sun goes into Capricorn this spot cannot be seen anywhere because the entire circle together with its pole hides behind the body of the Volva. During these two parts of the year the spots fall directly toward the west. During the intervening periods placed in the east or in Libra, and the spots either sink down crosswise or climb up in a curved line. This presentation teaches us that when the center of the Volva's body remains at rest, the poles of the perturbation on the arctic circle go around those poles once in a year's time.

The more diligent observers see that this Volva does not remain the same size. During the hours of the day when the stars move swiftly, the diameter of the Volva is much greater so that it is then clearly four times larger than our Moon.

Now, what shall I say about the Sun's and the Volva's eclipses which occur on Levania at the same time as the eclipses of the Sun and Moon occur here on Earth's globe, but evidently for different reasons? When we see the Sun's total eclipse, their Volva eclipses, whereas when our Moon eclipses, the Sun eclipses for them. Yet, not all these things agree exactly. They themselves often see partial eclipses of the Sun when none of the Moon fails us. On the contrary, they are often exempt from eclipses of their Volva when we have partial eclipses of the Sun. They have eclipses of their Volva in full Volva just as we have ours of the Moon in full Moon; they have eclipses of the Sun in new Volva as we have in new Moon. Because they have long days and nights, they experience most frequent eclipses of both heavenly bodies. A great number of our eclipses cross over to our antipodes, and of theirs, to

their antipodes. The Privolvans see none of these, but the Subvolvans alone see everything.

The Subvolvans never see a total eclipse of their Vulva, but through the body of the Vulva there crosses over them a certain small spot, reddish in its borders, dark in the center. This small spot makes its entrance from the eastern section of the Volva and leaves through the western edge; the same is true of the natural spots of the Volva, speedily anticipating them. The duration extends to a sixth part of their hour or four of ours.

The cause of the Subvolvans' solar eclipse is the Vulva, as our Moon causes ours. This cannot occur, because their Volva measure four times greater than the Sun, without having the Sun cross from the east through the south behind the immovable Vulva into the west. The Sun would then disappear very close behind the Vulva with the result that part or the Sun's whole body would be hidden from it. Frequently there is a very notable eclipse of the Sun's whole body because it lasts for several of our hours, when the light of both the Sun and the Volva is eclipsed at the same time. This is an important experience for the Subvolvans who have other nights not as dark as their days because of the brilliance and magnitude of their ever-present Vulva. In the Sun's eclipse both heavenly bodies, the Sun and the Vulva, are hidden from the Subvolvans.

As regards the Subvolvans, the eclipses of the Sun have this one point in common. It quite frequently happens that the brilliance rises on the opposite side when the Sun has scarcely been hidden behind the body of the Vulva, as if the Sun had expanded and embraced the whole body of the Vulva; yet, at some other time and in so many sections the Sun appears less than the Vulva. Complete darkness does not always occur, unless the centers of the bodies coincide closely together and the regular arrangement of the diaphanous centers unite. The Vulva does suddenly disappear so that it cannot be discerned at all, although the Sun completely hides itself behind the Vulva, except in the very moment of the longest eclipse. At the beginning of a total eclipse, however, the Vulva still remains white in some sections of the divisor as if there it were a living coal present after the flame was extinguished. After this whiteness disappears, the midpoint of the longest eclipse is present; (for this is not extinguished in anything less than the longest eclipse.) When the Volva's whiteness returns (in opposite places

of the circle's divisor), the view of the Sun also draws near. Somehow both bodies disappear in the midst of the longest eclipse.

These are the appearances in both hemispheres of Levania: the Subvolvan as well as the Privolvan. From these considerations it is not difficult for me to pass silent judgment on how greatly the Subvolvans differ from the Privolvans in other respects.

A Subvolvan night, even if it is 14 of our nights long, lights up the land and keeps it from cold by the presence of its Volva. Such a great mass, so much brightness cannot but keep it warm.

Although the Subvolvan day has the annoying presence of the Sun throughout our 15 or 16 nights, yet, the Sun has no less hostile forces. The united luminaries attract all the water into that hemisphere until the land has been completely covered, so that very little of it is visible. On the contrary, when all the water has been removed from the Privolvan hemisphere, it becomes dry and cold. Because the hemispheres have the luminaries divided among themselves, night comes upon the Subvolvans, day upon the Privolvans. The waters are divided so that the Subvolvan fields are stripped of everything while the Privolvans enjoy an abundance of moisture as a negligible relief from the heat.

The whole of Levania stretches out no further than 1400 German miles in circumference, a fourth part of our Earth. It possesses very high mountains, very deep and wide valleys and in consequence yields much to our Earth in perfect roundness. The entire surface is porous, as it were pierced through with hollow caverns and continuous caves, especially prolonged through the Privolvans. These hollow places are the principal means that the Privolvans have to ward off the heat and cold.

Whatever springs from the land or walks upon the land is of a monstrous size. Increases in size are very rapid. Life is of short duration because all living things grow to such an enormous bodily mass. The Privolvans have no fixed dwelling place. In the space of a single day, they traverse the whole of their world in hordes, following the receding waters either on legs that are longer than those of our camels, on wings, or in boats. If a delay of very many days is necessary, they crawl through the caves according to each one's nature. There are many divers among them and all their living creatures breathe very slowly. By combining nature with art, they can take

refuge at the bottom of the deep waters. They say that those in the very depths of the water endure the cold, while the upper waves are boiling hot from the Sun. Those that remain on the surface are boiled by the midday Sun and serve as nourishment for wandering colonists. In general, the Subvolvan hemisphere compares favorably with our cantons, towns and gardens while the Privolvan resembles our fields, forests and deserts. Other creatures who find breathing more necessary, retreat into caves which are supplied with water by narrow canals so that the water may gradually cool on its long way; but when evening comes, they go out for food. The bark on trees, the skin on living creatures, or if anything else takes their place, takes up the greater part of the corporeal mass because it is spongy and porous. If any creature is taken by surprise in the heat of the day, his skin becomes hard and scorched and falls off in the evening. Plants in the earth, and there are a few on the mountain tops, spring up and die on the same day, daily making room for new growing things.

Their nature is generally like a snake's. They have a strange love for basking in the noonday Sun, but only close to their caves, so that they can make a swift and safe retreat.

Others whose spirits have been exhausted by the heat of the day lose their life, but return through the night, on account of some paradoxical cause like the production of flies here on Earth. Here and there all over the ground are scattered masses in the shape of pine cones. Their rinds are sun-burnt through the day and die, but in the evening produce living creatures when the hiding places are opened.

In the Subvolvan hemisphere, a special means of alleviation from the heat are the unbroken clouds and storms which sometimes take hold of half or more than half of the region.

When I had come to this part of my dream, the wind rose with rumbling rain which disturbed my sleep and ended one of the last books I had brought from Frankfurt. When the Daemon, the speaker, and Duracotus, the son with his mother Fiolxhilda, the listeners, had been left behind, just as they had been with their heads covered, I came back to my senses, found that my head was on a cushion and my body wrapped up in a blanket.