



# Volume 1

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## How Did We Emerge?

*From Creation*

Via The Big Bang

*To Mankind*

In Anthroposophie And Sciences

# **This book consists of five parts :**

## **Part 1 Prearrangements**

**This book Calls Upon ...**

**In Short !**

- A. How Did We Emerge ?
- B. Spiritual Aspects
- C. Scientific Aspects

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## **Part 2**

### **Core Part**

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## D. Mankind and Matter

### D.1. The Solar Cosmos Coming to Life

Now we might have a look at Steiner's geocentric view of the *solar cosmos*. Are there parallels in geography to be found? Things that we had learned about in vol. I, part 1 so as to know them will from now on be connected to other concepts. From now on the reader will be expected to follow mental leaps. May they do good.

From the **astronomic** point of view the Milky Way originated ~ ?10? billion years ago [= bya = Ga], some ?3.8? billion years after the universe began. Some ?4.6? billion years ago the Sun originated as a star of the Milky Way's rather recent history. The same as any object in the universe it originated from «star dust» of stars that had exploded earlier, containing mainly hydrogen and helium, but also oxygen, carbon, nitrogen, silicon, iron, manganese, silver, gold, and macromolecular substances such as proteins.

In astronomy we cannot distinguish very well when the solar planets originated, including the Earth. It is assumed the Earth was born ~ ?4.57? billion years ago.

R. Steiner calls «star dust» "*world dust*" referring to Svante Arrhenius [1859 – 1927]. Steiner, too, sees it consisting of matter. On the other hand Steiner does not support Arrhenius agreeing with the Kant and Laplace nebular hypothesis stating that the planetary system could have originated without supernatural powers ordering them (*R.Steiner 60:461f, XV : 3/16/1911*). Steiner sees *spiritual* powers originating the universe (*R.Steiner 60:332, XI : 2/9/1911*).

Let us turn next to the **esoteric view** of how the world originated. The earliest appearance is what R. Steiner calls a state without chemical elements, consisting of nothing but *fire ether* and *warmth* {see Tab. B.2.1.}. He regards *warmth* as a substance, calling it "*subtle substance*" (e.g. *R.Steiner 13:137, IV*). *Warmth* extended over all the *solar cosmos'* extension. Its *physical* border was something like today's Saturn's orbit around the Sun, i.e. Saturn's orbit seen as a three-dimensional ellipsoid in lenticular shape. Steiner calls this *physical planetary development state* "*OLD SATURN*" and when it is iterated during the *planetary development state* of *EARTH* : "*Polaric Age*" or "*Polaris*". In both, *OLD SATURN* and *Polaris*, its *mineral-physical* condition is called *physical* {I} here {see Tab. B.2.1.}.

It is difficult to imagine pure *warmth*. Even when thinking of blazing heat we cannot help imagining hot gas (*D. Bosse*). Gas, however, does not yet exist during *OLD SATURN* or *Polaris*. The nearest guess to our imagination would be something like a warm soul (*D. Bosse*).

*OLD SATURN* as well as the *Polaric Age* end when a part of *warmth substance* congregates by and by at the periphery of the *solar cosmos*. We may imagine this part as all the surface {«skin»} of an oblate ball. Presumably there were heat-induced centrifugal forces working. When imagining *warmth substance* as something like *subtle substance*, we might imagine agglutinating forces gathering *warmth* on the *solar cosmos'* surface forming something like a skin. Agglutinations may have come from chance collisions of particles. Further agglutinations may have led at the end of *OLD SATURN* to the planet Saturn, which consisted, however, of nothing but *subtle warmth substance* so far, the same as all the *solar cosmos*. *Warmth* concentrating at the periphery of the *solar cosmos* like that, is what Steiner calls "*Saturn separation*", the planet Saturn's birth from the rest of the *solar cosmos*. All this rest of the *solar cosmos* stayed inside Saturn's orbit, consisting of *warmth*, its only element so far.

- **Scientifically** this esoteric development state did not exist. Even the plasma phase of the universe's origin {see in vol. I, part 1, chapter C.1 «Big Bang, Plasma and Radiation Energy»} contained a mixture of material particles most of which carry an electric charge : ions and electrons.

**Now back to esoterics.** When Saturn separated, the rest of the *solar cosmos* lost some *warmth, subtle warmth substance*. What the *physical* planet Saturn had taken up as *subtle substance*, was energy lost to the rest of the *solar cosmos*. The *solar cosmos* condensed on a lower energy level, centralized, and separated from Jupiter and then from Mars probably in the same way as it had from Saturn ("*Jupiter separation, Mars separation*"). Each time the rest of the *solar cosmos* lost energy, centralized, diminished, densified part of its *warmth* to *air / gas*, and refined parts of its *fire ether* to *light ether* {see Tab. B.2.1.}. Light radiation originated. The central part of the *solar cosmos* became transparent, but radiated just within the inside since it kept containing the energy of the future Sun. Steiner calls this *physical planetary development state* : "*OLD SUN*" and its iteration during the *planetary development state* of *EARTH* : "*Hyperborean Age*" or "*Hyperboreis*". Tab. B.2.1 states it was *physical* {II}.

## D.1. The Solar Cosmos Coming to Life

- In **physics**, too, there is a gradual transition known from the ultra hot, non-transparent universe which becomes transparent only when losing energy. That was, however, a long time before the sun system originated. It resembled the «plasma phase», from  $10^{-32}$  seconds to  $\sim 380$  million years after the singularity {see vol. I, part 1, chapter C.1 «Big Bang, Plasma and Radiation Energy»}. The plasma phase, too, contained light that is invisible from the outside. - In physics, however, the universe lost energy per space unit because it expanded.

**Continuing the esoteric view.** When the Sun, too, separated from the rest of the *solar cosmos* (“*Sun separation*”), light shone for the first time on what was left, the Earth and the Moon. Very gradually the concept of a year on Earth acquired meaning. In spite of the tremendous size differences of the Sun and the Earth Steiner's expression “*Sun separation*” can be justified by his geocentric view point.

Steiner calls the *physical planetary development state* following the *Sun separation* : “*OLD MOON*” and its iteration during the *planetary development state* of *EARTH* : “*Lemurian age*” or “*Lemuris*”. The *OLD MOON* was iterated only during the first half of *Lemuris*. Around the middle of *Lemuris* the Earth expelled the Moon (“*Moon separation*”), and the Earth was the only one to remain in the center of the geocentric world.

- Light to be seen originated physically as late as the «re-combination phase», some 400 million years after the singularity, when the earliest stars recombined already. This stage already contained matter, too, and cannot be regarded as consistent with either the *OLD MOON* or the *Hyperborean age*.

**Esoterically** seen the Sun separated twice. The first time occurred at the end of the 2<sup>nd</sup> *planetary development state* of *OLD SUN*, so that a new Sun had to be born during the 3<sup>rd</sup> *planetary development state* of *OLD MOON*. At the end of *OLD MOON* the new Sun did not separate but was spiritualized along with the rest of the *solar cosmos* - except for the Moon, which was separated. At the beginning of the 4<sup>th</sup> *planetary development state* of *EARTH* the Sun was reborn along with the rest of the *solar cosmos* - and a new Moon. The 2<sup>nd</sup> *Sun separation* occurred during *EARTH* at the end of the *age* that iterated *OLD SUN*. It is called the *Hyperborean age*.

The Moon separated twice, too : at the end of the 3<sup>rd</sup> *planetary development state* of *OLD MOON* and during its iteration at about the middle of the *Lemurian Age*.

During *OLD MOON*, i.e. earlier than the *Moon separation*, Venus and Mercury originated because some *spiritual beings* wishing to reach the Sun were not advanced enough to 'leap far enough' from the *solar cosmos*' residual center - consisting of no more than the Earth and the Moon - to the Sun. - **Physics** can neither agree nor oppose this view since strictly speaking it does not deal with the *spiritual*.

What did occur outside the *solar cosmos* ? - Steiner hesitates to comment on this issue arguing just the *solar cosmos* was created for man's sake, and dealing with man's creation was Steiner's topic, too.

Still there are a few physical facts useful when inquiring what is the surroundings the solar system was born into. For once : The Sun radiation increased since its origin for about half (*A.Schad, pg 24*). Astonishingly life continued. - For twice : In a private observation period of unfortunately just some 15 years the stellar constellations appeared earlier and earlier within the seasons. This seems to be due to the Earth's orbit around the Sun for sure. But there is more. As the years passed the stellar constellations appeared earlier and earlier during corresponding seasons, too. Maybe this is due to the ecliptic ? The ecliptic however turns clockwise while the Earth orbits does so counterclockwise. It seems not to fit. Yet exactly this fact makes constellations appear earlier 'behind' the Sun. - To ask a counter-question : Perhaps the Sun orbits counterclockwise in the Milky Way ? Considering however the Sun with his planets orbiting the Milky Way in  $\sim 215$  million years (*A.Schad*), we cannot draw any conclusion from having observed for just about 15 years. The same holds true for an ecliptic year of 25,700 to 25,800 Earth years [Wikipedia.de 1/26] or great year of 25,800 to 25,920 years on Earth [en.wikipedia.org 1/26], or *world year* or *platonian world year*.

## D.2. During *EARTH* : An Overview

Here there are just scientific time spans mentioned. In Tab. D.5.2. they are juxtaposed to the anthroposophic *ages* and the creation days. Ma = million years ago ; ka = thousand years ago.

Eon	Era	Period	Series	Time span	Model year
<b>[Super-Eon : PRECAMBRIAN] :</b>				?4,600? – 538.8 Ma	1 <sup>st</sup> Jan. 0 h
<b>HADEAN</b> = eon «similar to Hades»				?4,600 – 4,000? Ma	1 <sup>st</sup> Jan. 0 h
<b>ARCHEAN</b> = «primordial eon»				?4,000 – 2,500? Ma	17 <sup>th</sup> Feb.
<b>PROTEROZOIC</b> = eon of «early life»				?2,500 - 720? Ma	16 <sup>th</sup> June
		Paleo-Proterozoic		?2,500 - 1,600? Ma	16 <sup>th</sup> June
		Meso-Proterozoic		?1,600 - 1,000? Ma	26 <sup>th</sup> August
		Neo-Proterozoic		?1,000? - 538.8 Ma	13 <sup>th</sup> Oct.
			Tonian	?1,000 - 720? Ma	13 <sup>th</sup> Oct.
			Cryogenian	?720 - 635? Ma	4 <sup>th</sup> Nov.
			Ediacaran	?635? - 538.8 Ma	11 <sup>th</sup> Nov.
<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :				538.8 Ma up to our days	18 <sup>th</sup> Nov.
		Paleozoic = era of «ancient life»		538.8 – 251.9 Ma	18 <sup>th</sup> Nov..
			Cambrian	538.8 – 485.4 Ma	18 <sup>th</sup> Nov.
			Ordovician	485.4 – 443.4 Ma	22 <sup>th</sup> Nov.
			Silurian	443.4 - 419.2 Ma	1 <sup>st</sup> Dec.
			Devonian	419.2 – 358.9 Ma	3 <sup>rd</sup> Dec.
			Carboniferous	358.9 – 298.9 Ma	7 <sup>th</sup> Dec.
			Permian	298.9 – 251.9 Ma	10 <sup>th</sup> Dec.
		Mesozoic = era of «middle life»		251.9 – 66 Ma	14 <sup>th</sup> Dec.
			Triassic	251.9 – 201.3 Ma	14 <sup>th</sup> Dec.
			Jurassic	201.3 – 145 Ma	17 <sup>th</sup> Dec.
			Cretaceous	145 – 66 Ma	21 <sup>th</sup> Dec.
		Cenozoic = era of «new life» [mammals]		66 Ma- 2588 ka	25 <sup>th</sup> Dec.
			[Tertiary] [unused]	66 – 2.588 Ma	25 <sup>th</sup> Dec.
			Paleogene «old stock» [= old tertiary]	66 – 23.03 Ma	25 <sup>th</sup> Dec.
			Paleocene «old unusual»	66 – 56 Ma	25 <sup>th</sup> Dec.
			Eocene «unusual as dawning»	56 – 33.9 Ma	26 <sup>th</sup> Dec.
			Oligocene «rare unusual»	33.9 – 23.03 Ma	28 <sup>th</sup> Dec.
			Neogene «new stock» [= new tertiary]	23.03 – 2.588 Ma	29 <sup>th</sup> Dec.
			Miocene «less unusual»	23.03 – 5.333 Ma	29 <sup>th</sup> Dec.
			Pliocene «more unusual»	5.333 – 2.588 Ma	31 <sup>th</sup> Dec. 13 h
			Quaternary	2,588 ka up to our days	19 h
			Ice age = Pleistocene «the newest»	2,588 – 11.7 ka	19 h
			Earliest Homo erectus fossils South Africa : mastering fire	1900 thousand years ago	3 h 37 min ago
			Earliest Homo sapiens fossils	300 thousand years ago	34 min ago
			Post-ice age = Holocene «completely new»	11.7 ka up to our days	since 80 sec
			Cheops-pyramid	4600 ya	32 sec ago
			the Christ born	2025 ya	14 sec ago
			America rediscovered 1492	533 ya	3,6 sec ago
			Anthropocene since 1825 : public trains	since 200 y	since 1,35 sec
			Atomic age since 1945	since 80 y	since 1/2 sec
			Commercial internet since 1990	since 35 y	since < 1/4 "

Tab. D.2.1. Scientific time chart.

[according to en.wikipedia.org and Wikipedia.de 9/24 , simplified]

The table above skews the course of time. What lies just shortly in the past, means a lot to us. Was 2024 not more exciting, more full of events, than 1824 ? - The time lines in chapter D.6. are trying to ease that out.

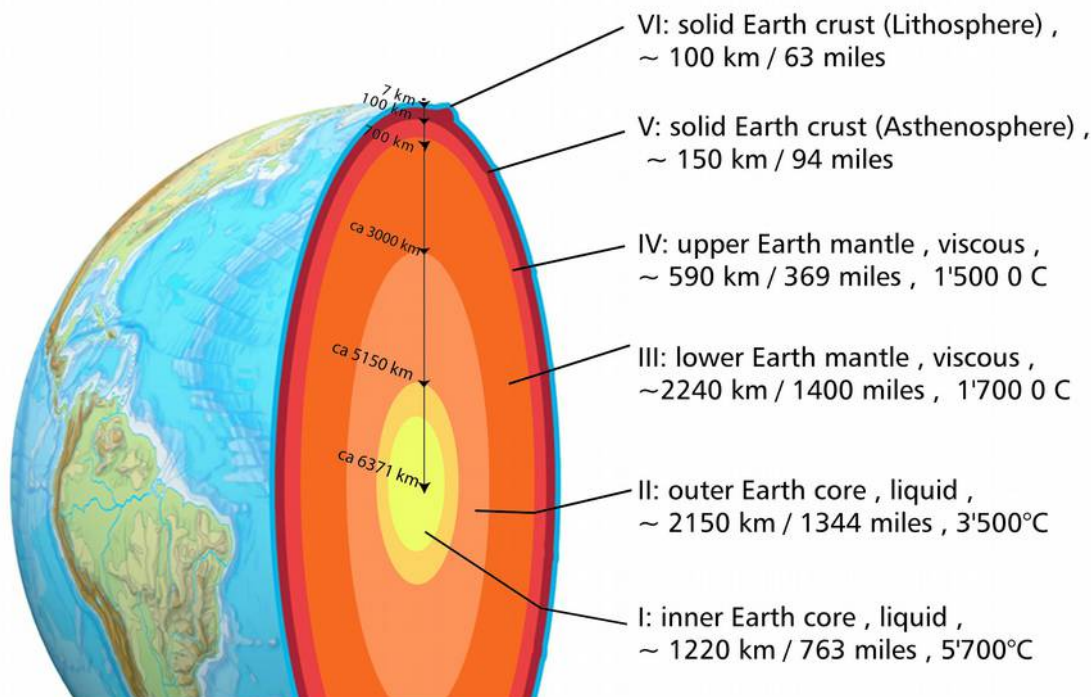
Now, however, we shall come to the way the Earth layers built up, as far as the time when we may turn to other criteria because fossils were found. First we shall deal with the Earth layers in geology and then in esoterics and anthroposophy.

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All the chemical elements can only have come from space. Not only, however, as unconnected elements the way they exist on Earth in nature as «pure metals» [Wikipedia.de]. Unconnected elements, on the other hand,

*„originated (...) mostly in a secondary process by natural chemical transformation (...) when water came later.“* (Bosse 2015, S. 54).

Oxygen is needed for this [HRS]. - The geologic layers of the Earth first, mainly from Wikipedia :



[Earth's layers : in the image {left} : the maritime Earth crust ; in the list {right} :the continental Earth crust.]

Fig. D.3.1. An Earth cut [Wikipedia.de, adapted].

**I and II** : The **Earth's core** can only be explored by seismic measurements. It contains 1/ 6<sup>th</sup> of the Earth's volume but almost 1/ 3<sup>rd</sup> of the Earth's mass because of its high density. It may be thought to split into

**I** : The **Earth's inner core**, ~ 1220 km - almost 1/ 5<sup>th</sup> of the Earth's radius of 6371 km, probably ~ 5700 °C and probably consisting of 80 % iron and 20 % nickel, both forming a solid alloy because of the high pressure ; and

**II** : The **Earth's outer core**, ~ 2150 km - a bit more than 1/ 3<sup>rd</sup> of the Earth's radius. There are lighter elements, probably 10 - 15 % by weight, mixing to the iron-nickel-alloy. It is here that Earth magnetism originated > ?4? billion years ago because in spite of the high pressure there are probably iron and nickel in a viscous-liquid state so that they can rotate with the Earth's rotation. Flow velocity is in the order of magnitude of about 0.001 m/sec = 3.6 m/h = ~ 12 ft/h. Whereas the equator is turning at 463 m/sec = ~ 1667 km/h = ~ 1042 mi/h. If the Earth's liquid core would rotate congruently with the equator, it would have to come up to a velocity of ~ 245 m/sec = ~ 882 km/h = ~ 551 mi/h. Supposedly the friction between the Earth layers add to keeping the temperatures in the Earth's core and mantle stable.

**III + IV** : The **Earth's lower and upper mantle** - more than 2/3 of the Earth's mass, 83 % of the Earth's volume and 45 % of the Earth's radius. Presumably it exists since ?4.45? billion years. There are temperatures between ~ 3500 °C at the transition between the core and the mantle, and several 100 °C at the transition between the mantle and the crust. It originated when the carbon-containing substances evaporated into the atmosphere, and the iron-containing substances remained in the Earth's core. The Earth's mantle consists mostly of the deepest testable rock layer, the peridotite layer. It contains at least 40 % of olivine = peridotite, furthermore magnesium silicates

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and iron silicates. As peridotite melts basalt originates under the middle-oceanic ridge from magma as a melt creating the oceanic crust.

**V + VI** : The **Earth's solid crust** consists of molten rock. Mostly it is less dense than the Earth's mantle, so the crust lies on top of the mantle. The crust can be divided into

**V** : The **asthenosphere**, slowing the velocity of Earth quakes down because of its viscoelastic consistency ; and

**VI** : The **lithosphere**. Containing only .4 % of the Earth's mass it is

*"(...) extremely thin : under continents 60 - 100 km [~ 40 - 60 miles] ; under oceans just 5 – 10 km [3 - 6 mi] ! On a globe this would correspond just to the top paper layer ! In addition this skin as thin as paper is torn at all the middle-oceanic ridges !" (Bosse 2012, pg 95).*

**VI a** : **Basalt** [outpouring rock containing little Si O<sub>2</sub>] : in the lithosphere's deepest part, originating when the Earth's mantle melts by volcanic activity, then cools down. Magma [rock melt] of low viscosity cools down relatively fast when reaching the Earth's surface or the ocean floor and becomes basaltic lava [erupted magma]. The layers on top :

**VI b** : **Granite**, consisting of «feldspar, quartz, and mica, I won't forget them eva». Granite originates when magma petrifies within the Earth's crust -  $\neq$  lava - , mostly 2 km or more under the Earth's surface.

- **Feldspar** is a large group of quite common silicate-minerals.

- **Quartz** = silicon dioxide [Si O<sub>2</sub>] is the second most frequent mineral after feldspar.

- **Mica** : a group of layered silicates between feldspar and quartz. It can be cut easily to simple temperature-resistant «glass».

The next layers on top :

**VI c** : **Gneisses** : They originate by metamorphosis, i.e. under relatively high pressure and temperature. Gneisses are found on the Earth's surface only when layers higher up eroded or deeper layers were lifted to the surface by tectonics.

**VI d** : **Shale rocks** are the oldest sedimentary rocks. What is common among them is that they can be cleaved extremely easily. Elder readers may remember kindergarten slates.

The above list of layers ends at the earliest signs of life in crystal rock.

There are not only substances from space such as precious metals on Earth and the Moon. High temperatures and pressure of the rock layers on top may metamorphize them to granite, mica, or gneisses.

With all three ways to originate - substances from space, melt metamorphoses, and sediments - there is a sequence in time to be recognized in layers on top of each other - unless plate tectonics and accompanying volcanism swirled the rock layers. Subduction zones are a good example. The example taken here is the San-Andreas subduction zone, the earth quakes and cleaves of which brought considerable plight to California.

### Subduction

Subduction is a geological process in which the oceanic lithosphere and some continental lithosphere is recycled into the Earth's mantle at convergent boundaries. Where the oceanic lithosphere of a tectonic plate converges with the less dense lithosphere of a second plate, the heavier plate dives beneath the second plate and sinks into the mantle. A region where this process occurs is known as a **subduction zone**, and its surface expression is known as an **arc-trench complex**. The process of subduction has created most of the Earth's continental crust. Rates of subduction are typically measured in centimeters per year, with rates of convergence as high as 11 cm/year. - Subduction is possible because the cold oceanic lithosphere is slightly denser than the underlying asthenosphere, the hot, ductile layer in the upper mantle underlying the cold, rigid lithosphere. Once initiated, stable subduction is driven mostly by the negative buoyancy of the dense subducting lithosphere. The slab sinks into the mantle largely under its weight. [en.wikipedia.org 9/24].

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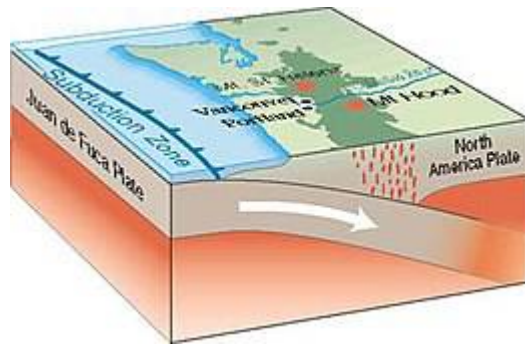


Fig. D.3.2. Principle of a subduction zone [en.wikipedia.org].

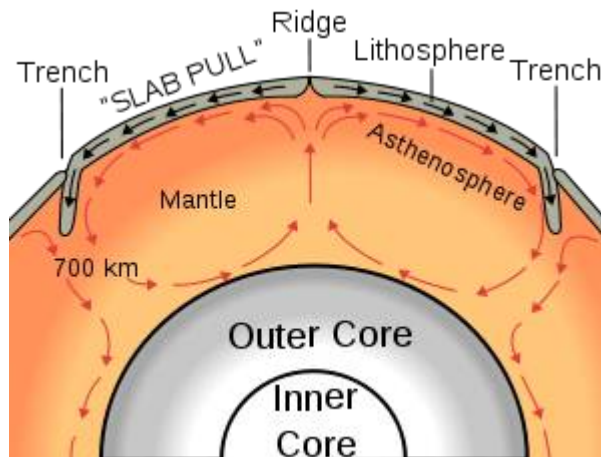


Fig. D.3.3. Subduction zone at the San-Andreas warping [en.wikipedia.org].

*„We can cope (...) with the presentations of geology and spiritual science in the transition zone between the supersensible phenomena and the ones to be observed by the senses only when imagining such developments as highly differentiated vertically and horizontally ! For instance we need to differentiate accurately whether all the ground is described or just the continental areas above which the life processes and substance processes were working.“ (Bosse 2012 , pg 99).*

Instead of the term «metamorphosis» Bosse proposes "transformation" :

*„In anthroposophic literature misunderstandings may arise when the word metamorphosis is to designate supersensible realities in Goethe's sense as well as rock transformations as in petrology (...). I would appreciate if in anthroposophic usage "metamorphosis" were reserved to the supersensible reality, (...) and "transformation" were used when speaking of geochemical changes while rocks were forming. (...) The ideas of the **rock cycle** arose from concepts of metamorphic rocks. During the first half of the 20<sup>th</sup> century the idea was that in local dips [«geosynclines»] the sediments gathered, sank, were molten to metamorphosed rocks, lifted up to mountain ranges, eroded once more, and deposited again as sediments.“ (Bosse 2002 , pg 293).*

### Esoteric Strata of the Earth's Interior

As geology cannot yet research much of the Earth's deeper layers with its methods it might be worthwhile having a look at R. Steiner's clairvoyant views. He divides the Earth's layers into nine sections (quoted according to *Delor 6:48 – 62 , 140 f* as well as *Delor 7:448 f*: excerpts ; underlining and bold type by us authors). Steiner's classification might give clues with all their fantastic appearance, especially since he relies on other esoteric schools as far back as an-

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tiquity. What especially concerns us : In Steiner's view mankind living on the Earth's surface influences the Earth's core from the 6<sup>th</sup> stratum on.

In the following descriptions Steiner enumerates the esoteric strata counting from the Earth's surface down to the Earth's core, which is the direction of *clairvoyant* discovery. The strata did build up, however, going from the center up to the surface. Incessantly matter poured from space down on the earth, augmenting its volume. At first the Earth consisted just of the innermost stratum, in Steiner's counting the ninth. It seems plausible that in coming *ages* further strata will accumulate on today's outer stratum.

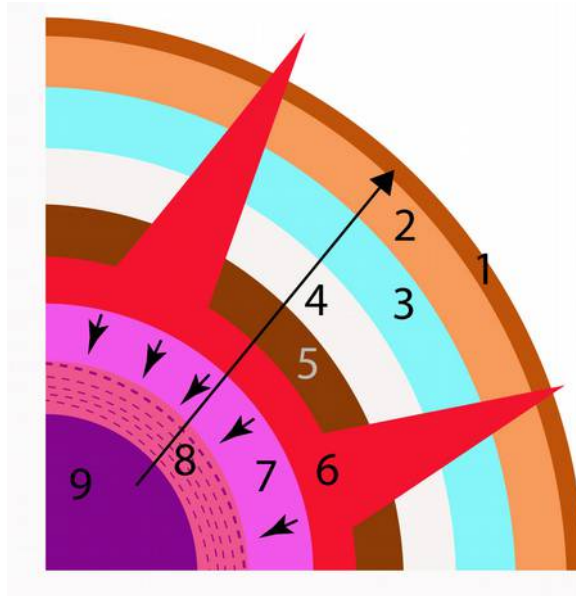


Fig. D.3.4. The Earth's interior by R. Steiner

Steiner calls of the nine strata :

Earth's crust : (1<sup>st</sup>) "Solid or mineral Earth" corresponding to the lithosphere as far down as 100 km, as well as (2<sup>nd</sup>) "Fluid or soft Earth" corresponding to the asthenosphere, ~ 100 - 400 km, the lithosphere's lubricating layer.

Earth's mantle : (3<sup>rd</sup>) "Earth's steam" ; (4<sup>th</sup>) "Water-Earth" or "Soul-Earth" or "Form-Earth" ; (5<sup>th</sup>) "Fruit-Earth".

Earth's core : (6<sup>th</sup>) "Fire-Earth" ; (7<sup>th</sup>) "Earth's mirror" ; (8<sup>th</sup>) "Shatterer" ; (9<sup>th</sup>) "Earth's brain".

Steiner's three main categories - *Earth's crust*, *Earth's mantle*, and *Earth's core* - correspond to geologic names but comprise different classifications and should not be confused with them. - One by one :

„Die oberste Schicht ist diejenige, in welcher alles dasjenige enthalten ist, was die Naturwissenschaft einzig und allein kennt, alles, was an festem Gestein oder Material zu festem Gestein vorhanden ist. Alles Mineralische ist in dieser obersten Schicht enthalten, alles, was als Materie die feste Erdrinde bildet. (...) Die äußere Schicht heißt **feste oder mineralische Erde**.“  
(R.Steiner 96:33 , II : 4/16/1906).

The uppermost stratum contains everything the sciences {at Steiner's time} know and nothing else, everything there is about solid rock or material of solid rock. This uppermost stratum contains everything mineral, all the matter building the Earth's solid crust. (...) The outermost stratum is called **solid or mineral ground**.

„Dann kommt die zweite Schicht. Diese unterscheidet sich äußerlich von der darüber liegenden im Wesentlichen dadurch, dass sie in einem verhältnismäßig weichen, flüssigen Zustand ist. Alles, was sie enthält, ist derart, dass man sie im Okkultismus die Schicht der **flüssigen oder weichen Erde** nennt. (...) Alles das, was diese zweite Schicht enthält, sind Dinge, von denen die gewöhnliche Physik kei-

Then there is the 2<sup>nd</sup> stratum. Externally it differs from the one on top mainly because it is in a relatively soft, liquid state. Its consistency is so that in occultism it is called the stratum of **liquid or soft Earth**. (...) Ordinary physics {at Steiner's time} have no idea of the

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ne Ahnung haben kann, denn es ist zunächst nicht möglich, dass auf der Oberfläche unserer Erde Zustände, in denen das, was innerhalb dieser Schicht als Substanz vorhanden ist, überhaupt enthalten sein könnte. Das kann aber gar nicht an der Oberfläche der Erde enthalten sein, denn es bedarf jenes ungeheuren Drucks, der von der obersten Schicht ausgeübt wird, um das in der zweiten Schicht zusammen zu halten. Würden Sie die obere Schicht hinweg nehmen, so würde das, was darunter liegt, in einer unglaublichen Geschwindigkeit in den ganzen Weltraum zerstreuen.“ (R.Steiner 96:33 f, II : 4/16/1906).

„Die dritte Schicht nennt man den **Erdendampf**. Es ist eine Schicht, die noch schwerer zu charakterisieren ist als die zweite. Sie können sich dampfförmiges Wasser vorstellen. Außer seinem dampfförmigen Zustand ist es noch durch und durch belebt. Wir haben also eine Schicht, die im Wesentlichen belebt ist, während die beiden anderen Schichten der Erde, also die erste und die zweite Schicht, als solche nicht eigentliches Leben haben. Nur hat die zweite Schicht eine ungeheure Ausdehnungsmöglichkeit, eine Zersplitterungstendenz. Die dritte Schicht besitzt dagegen ein in jedem Punkt vorhandenes Leben.“ (R.Steiner 96:34 , II : 4/16/1906).

„Eine dritte Schicht ist die Dampfschicht. Aber sie ist nicht ein Dampf materieller Art, wie wir ihn auf der Oberfläche unserer Erde haben, sondern in dieser dritten Schicht ist die Substanz selbst mit inneren Kräften begabt, die wir nur vergleichen können mit den menschlichen Leidenschaften, mit den inneren Trieben der Menschen. Während auf der Erde nur Wesen, die so geformte Wesen sind wie Tiere und Menschen, Leidenschaften entwickeln können, ist diese dritte Schicht - aber doch ganz so, wie die Substanzen der Erde von magnetischen und Wärmekräften durchzogen sind - materiell durchzogen von Kräften, die dem gleich sind, was wir als menschliche und tierische Triebe und Leidenschaften kennen.“ (R.Steiner 107:117 f).

„Der vierte Kreis heißt **Wasser-Erde, Seelen-Erde, Form-Erde**. Er besitzt eine bemerkenswerte Eigentümlichkeit. Man stelle sich einen Würfel vor, der seiner Substanz nach umgekehrt erschiene : Da, wo diese Substanz war, wäre nichts ; der durch den Würfel eingenommene Raum wäre leer, aber um ihn <sup>1</sup> herum

things this 2<sup>nd</sup> stratum contains because for the time being it is not possible that substances contained in this stratum could appear on the Earth's surface at all. They could not be kept on the surface because an enormous pressure is needed to keep the 2<sup>nd</sup> stratum together. The pressure comes from the uppermost stratum. If you would take away this upper stratum, everything beneath would dissipate into space with unbelievable speed.

The 3<sup>rd</sup> stratum is called the **Earth's steam**. It is a stratum even harder to be characterized than the 2<sup>nd</sup> one. You may imagine water steaming. In addition to the steaming state it is thoroughly alive. So we are having here a stratum that contains mainly life while the Earth's other two ones, the 1<sup>st</sup> and the 2<sup>nd</sup> stratum, as such do not contain life to be considered. Just the 2<sup>nd</sup> stratum has an extreme capacity of expansion, a tendency to shatter. The 3<sup>rd</sup> stratum on the other hand contains life at any point.

A 3<sup>rd</sup> stratum is the steam stratum. But it does not contain steam of a material kind as we have on the Earth's surface. In this 3<sup>rd</sup> stratum the substance itself is endowed with inner forces, comparable only to human passions, to man's internal drives. While on {today's} Earth just beings formed like animals or humans are able to develop passions, all this 3<sup>rd</sup> stratum is materially perfused by forces we know as human or animal passions. In the same manner the Earth's substances are perfused by magnetic or warmth forces.

The 4<sup>th</sup> stratum is called **Watery-Earth, Soul-Earth, Form-Earth**. It is endowed with a noteworthy oddity. Imagine a cube the substance of which appeared vice-versa : Where its substance ought to be there is nothing ; the cube's space were empty but around it there were this

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wäre diese Substanz, die substanzielle Form. Daher kommt dieser Name Form-Erde. Hier ist dieser Wirbel von Formen, anstatt eine negative Leere zu sein, eine positive Substanz.“ (R.Steiner 94:108 , XVI : 6/12/1906).

„Die vierte Schicht ist nun so beschaffen, dass alle diejenigen Dinge, die in den drei übergeordneten Schichten vorhanden sind und immerhin mehr oder weniger etwas von unseren gewöhnlichen Stoffen haben, keine Stofflichkeit mehr aufweisen, wie sie auf der Erde angetroffen werden kann. In dieser Schicht sind also die Substanzen so, dass sie für keinen äußeren Sinn wahrnehmbar werden. Sie sind in einem astralischen Zustand. Alles, was in den drei obersten Schichten der Erde existiert und doch noch in gewissen Weise mit dem auf der Erdoberfläche Befindlichen verwandt ist, das ist hier im astralischen Zustand vorhanden. Wir können in dem Sinne, wie es in der Bibel heißt, sagen : «Der Geist Gottes schwebte über den Wassern.»

*substance, the substantial form. That is where the name of Form-Earth comes from. Here this swirl of forms is a positive substance instead of a negative emptiness.*

*In the 4<sup>th</sup> stratum all the things we know of in the three upper strata, do not contain any more a substance we know of on the Earth's surface, although the things in the three upper strata still contain more or less something of our usual substances. In this stratum substances cannot be perceived by outer senses. They are in an astral state. Everything existing in the three uppermost strata and still related to the Earth's surface in some way, is in an astral state here. We might say the way the bible tells us : «The spirit of God floated above the waters.»*

«and the Spirit of God moved upon the face of the waters.» [KJV I:2] / «Braus Gottes schwingend über dem Antlitz der Wasser.» [Buber & Rosenzweig I:9].

Nennen wir diese Schicht die ‚Wassererde‘, wie sie auch im Okkultismus bezeichnet wird. Diese Wassererde ist zu gleicher Zeit der Ursprung, der Urquell alles auf der Erde befindlichen Stofflichen, alles äußerlichen Stofflichen, gleichgültig ob dieses im Mineral, in der Pflanze, im Tier oder im Menschen enthalten ist. Dieses Stoffliche, das jedes irdische Wesen in sich trägt, ist, bis ins Astralische verflüchtigt, in dieser Wassererde vorhanden. Sie müssen sich vorstellen, dass von allen unseren physischen Kräften auch astralische Urkräfte vorhanden sind ; dass diese astralischen Urkräfte sich ins Physische verdichten und dass diese Urkräfte in der vierten Schicht, in der Wassererde, enthalten sind.“ (R.Steiner 96:34 , II : 4/16/1906).

*Let us call this stratum 'Watery Earth' the way it is called in occultism. At the same time Watery Earth is the origin, the primordial source of everything material on Earth, of everything externally material, no matter whether it is contained in a mineral, a plant, in an animal or in man. This material which every being on Earth carries within itself, is contained in this Watery Earth - volatilized as far as the astral state. You need to imagine that of all the physical forces there exist astral primordial powers, too ; that these astral primordial powers densify into the physical, and that these primordial powers are contained in this 4<sup>th</sup> stratum, the Watery Earth.*

Fünftens : „Die **Frucht-Erde** : Diese Substanz ist voll von strotzender Wachstumsenergie. Jedes Teilchen derselben wächst sofort weiter wie ein Schwamm, wird immer und kann nur zusammengehalten werden von den oberen Schichten. Sie dient den Formen der vorhergehenden Schicht als dahinterstehendes Leben.“ (R.Steiner 95:141 , XIV : 9/4/1906).

5<sup>th</sup> : **Fruit-Earth** : This substance is full of bristling growth energy. Every particle immediately continues growing like a sponge. It is squeezed together and can only be kept so by the strata above. It serves the forms of the upper strata as the life behind them.

The 6<sup>th</sup> stratum : **Fire-Earth**. It is here that the interaction between mankind and the Earth's strata appears for the first time. During the *Lemurian Age* the stratum of *Fire-Earth* was nearer to the Earth's surface than in our days.

„Durch die Leidenschaften der Menschen angeregt, dringt sie durch die Frucht-Erde hindurch, zwingt sich dann durch die Kanäle in die oberen Schichten und fließt sogar in die feste Erde hinein, erschüttert diese und bewirkt ein Erdbeben. Stößt diese Leidenschaft der Feuerschicht innere Erdensubstanz aus, dann entsteht ein Vulkan. -

Das hat sehr viel zu tun mit den Menschen. In der Lemurischen Rasse war die obere Schicht noch sehr weich, und die Feuerschicht lag noch weit oben. Nun besteht eine Verwandtschaft zwischen der menschlichen Leidenschaft und der Leidenschaftssubstanz dieser Schicht. Wenn der Mensch also sehr böse ist, so verstärkt er diese Leidenschaft. Das geschah am Ende der Lemurischen Zeit. Da machte der Lemurier durch seine Leidenschaft die Feuer-Erde rebellischer und richtete den ganzen Lemurischen Kontinent auf diese Weise zugrunde. Nirgendwo anders kann er die wahre Ursache zu diesem Untergang finden als in dem, was er selbst aus der Erde herausgezogen hat. Heute sind die Schichten dichter und fester geworden, aber noch immer stehen die menschlichen Leidenschaften mit der Leidenschafts-Schicht der Erde im Zusammenhang : Immer noch bewirkt eine Ansammlung böser Leidenschaften und Kräfte Erdbeben und Vulkane.“ (R.Steiner 95:147 , XIV : 9/4/1906).

„Dieses Element der Feuer-Erde steht in enger Verwandtschaft mit dem menschlichen Willen. Sie ist es, die jene entsetzlichen Eruptionen hervorgebracht hat, die der Lemurischen Epoche ein Ende bereitet haben. Die Kräfte, die den menschlichen Willen speisen, gingen zu dieser Zeit durch eine Krise, welche die Entfesselung jener Feuergewalt herausforderte, in welcher der Lemurische Kontinent unterging. Im Laufe der Entwicklung senkte sich diese sechste Schicht immer mehr gegen den Erdmittelpunkt, und aus diesem Grunde wurden die Eruptionen weniger zahlreich. Aber sie finden immer noch statt unter dem Einfluss des menschlichen Willens, der magnetisch auf die Erdschicht wirkt und sie in Unordnung bringt, wenn er schlecht oder irregeleitet ist. Gereinigt vom Egoismus kann der menschliche Wille im Gegenteil dieses Feuer besänftigen. Insbesondere die materialistischen Epochen sind beglei-

*Incited by man's passions it {Fire-Earth} penetrates Fruit-Earth, then squeezes through the canals {diapirs of the Earth's mantle} into the strata above, even flowing into the solid Earth {Earth's crust}, shattering it and causing an earth quake. When this passion of the Fire Stratum ejects inner substance of the Earth, there is a volcano blowing up. -*

*That is what has a lot to do with man. In the Lemurian race {during the Lemurian age} the uppermost stratum was still quite soft, and the fire stratum was still quite near to the surface. There is a relationship between human passion and the passion substance of this {6<sup>th</sup>} stratum. When man is very evil he will enhance this passion. That is what occurred at the end of the Lemurian time {age}. It was then that the Lemurians incited the Fire-Earth to rebellion by their own passion, devastating all the Lemurian continent in this way. True reason of this devastation cannot be found anywhere else than in what they themselves extracted from the ground. In our days the strata have densified, solidified rather, but still human passions are connected to the Earth's passion stratum : Still an accumulation of evil passions and forces does cause earth quakes and volcano eruptions.*

*This aspect of Fire-Earth is closely related to the human will. It is this stratum that evoked those terrible eruptions that brought to end the Lemurian epoch. The powers nourishing the human will underwent a crisis at the time, provoking and unleashing the tremendous fire destroying the Lemurian continent {Lemuris}. In the course of {the Earth's} development this 6<sup>th</sup> stratum descended more and more to the Earth's center, and for this reason the eruptions diminished in number. But they still occur under the influence of human will, which is working magnetically on this stratum of the Earth, and troubling it when man's will is evil or misguided. On the other hand human will when purified from egoism, may soothe this fire. Especially*

*tet und gefolgt von Erdkatastrophen, Erdbeben und so weiter. Eine stärkere Befolgung der fortschreitenden Entwicklung<sup>3</sup> ist die einzige Alchemie, die nach und nach den Organismus und die Seele der Erde verwandeln könnte.“*  
(R.Steiner 94:108 , XVI : 6/12/1906).

*„Wenn es sich nun um eine solche Naturkatastrophe wie einen Vulkanausbruch handelt, so sind die tieferen Erdschichten, die ich hier aufgezeichnet habe, beteiligt. Das gilt sowohl für Vulkanausbrüche wie für Erderschütterungen. Das Material der obersten Schichten wird durch die Kräfte, die von der Frucht-erde (...) ausgehen, in Bewegung gesetzt. Wir haben es mit Wirkungen zu tun, die ihren wesentlichen Ursprung in der fünften Schicht unseres Erdinneren haben. Beteiligt aber ist noch das, was wir die Feuererde nennen, indem diese in Unruhe gerät. Sie ist ja eigentlich in fortwährender Unruhe, wird aber besonders unruhig in den Zeiten, in denen so abnorme Erscheinungen wie Erdbeben oder Vulkanausbrüche stattfinden. Nun steht die Frucht-erde - sie ist dasjenige, aus dem alles Leben hervorgegangen ist - im Zusammenhang mit allem Lebendigen. Die Feuererde aber steht im Zusammenhang mit dem, was empfindet, mit dem, was Lust und Leid erfährt, mit dem niederen Seelischen, seinen Leidenschaften und Trieben. -*

*(...) Als der heutige Mensch auf unserer Erde zum ersten Mal mit einem höheren Seelischen befruchtet wurde und anfing, Mensch zu sein, da waren noch mächtige Triebe unter dem Einfluss der Frucht- und Feuererde am Werk. Das alles stürmte und wütete in ganz anderer Weise, als das heute der Fall sein kann. Die Menschen der Lemurischen Rasse waren in einer mächtigen Tätigkeit. Dieser ganze Lemurische Kontinent, der sich in der Gegend zwischen dem heutigen Australien, Asien und Südafrika ausbreitete, ist durch vulkanisch-eruptive Katastrophen, durch ein starkes Wüten des Frucht- und Feuerelementes der Erde, untergegangen. Das hing mit dem zusammen, was sich in den dazumal noch ganz und gar in Trieben und Instinkten lebenden Menschen abspielte. Es war damals noch ein intimer Zusammenhang zwischen den Trieben, Begierden und Leidenschaften und den Kräften der vulkanischen Tätigkeit. Das Ende des Lemurischen Kontinents wurde durch den grandiosen Egoismus der*

*the materialistic epochs are accompanied and followed by earth catastrophes, earth quakes and so on. Following man's progressing development, is the only alchemy that might by and by change the Earth's organism and soul.*

*Whenever there is a catastrophe in nature like a volcano eruption then the deeper Earth's strata I described here, are involved. This is true for volcano eruptions as well as earth quakes. The material of the upper strata is set in motion by forces coming from the Fruit-Earth {5<sup>th</sup> stratum} (...). Essentially we have effects originating in the Earth's 5<sup>th</sup> stratum. What we are calling Fire-Earth {6<sup>th</sup> stratum} is involved, however, in that it is troubled. Really it is continually troubled, but especially so when there are abnormal occurrences like earth quakes or volcano eruptions. Fruit-Earth is wherefrom all life originated, and so it stays connected to all life. Fire-Earth, on the other hand, is connected to whatever is felt, to lust and suffering, to what is in the lesser soul, to one's passions and drives. -*

*(...) When today's mankind was fecundated for the first time with a higher soul, and beginning to be human, there were still powerful drives working under the influence of Fruit-Earth and Fire-Earth. All this stormed and raged in a way out of range in our days. Mankind of the Lemurian race was active and full of power. All this Lemurian continent, extending all over the areas between today's Australia, Asia, and South Africa, perished by volcanic-eruptive catastrophes, by the Earth's fruit element and fire element raging fiercely. That was connected to what played a role to mankind being totally engulfed in drives and instincts then {during the Lemurian age}. At that time there was still an intimate connection between the powers of volcanic activity, and drives, lusts, and passions. The end of the Lemurian continent was*

letzten Lemurischen Rassen herbeigeführt, die eine Schwarze Magie ausübten, von welcher wir heute keine Vorstellung mehr haben können.“ (R.Steiner 96:39 f , II : 4/16/1906).

brought about by the grandiose egotism of the last Lemurian races. They exercised a black magic we cannot have any idea of in our days.

Let's continue :

„Die siebte Schicht wird der **Erdspiegel**, auch **Erdrefraktor** oder - **reflektor** genannt, und zwar aus einem ganz besonderen Grund. Nun kommt etwas, was sich vielleicht am allerschwersten vorstellen lässt. Wer nicht bekannt ist mit dem, was man die sogenannten sieben unaussprechlichen Geheimnisse des Okkultismus nennt, dem wird es grotesk erscheinen, was diese siebente Schicht des Erdinneren enthält. Sie birgt in sich alle Naturkräfte, ins Geistige umgesetzt. Ich möchte mich so verständlich machen : Denken Sie sich Magnetismus, Elektrizität, Wärme, Licht oder irgendeine Naturkraft, aber diese ins Geistige übertragen. Ein Magnet zieht beispielsweise Eisen an. Das ist eine unorganische Wirkung. Denken Sie sich diese ins Geistige umgesetzt so, als ob der Magnet aus einer inneren Seelensympathie das Eisen anziehen würde, und denken Sie sich die elektrische Leitung ins Geistig-Moralische umgewandelt so, als ob unsere Naturkräfte nicht mechanische, gleichgültige Kräfte wären, sondern moralische Wirkungen hätten. Die Kräfte der Erwärmung, der Abstoßung, der Anziehung stellen Sie sich als seelisch-moralisch vor ; denken Sie sich dieselben so, als ob sie den Menschen eine Wohltat erweisen wollten und dabei eine seelische Empfindung hätten. So stellen Sie sich die ganze Natur zunächst moralisch vor. -

The 7<sup>th</sup> stratum is called the **Earth's mirror**, or the **Earth's refractor** or the **Earth's reflector** - for quite a special reason. Maybe that is something you might imagine with extreme difficulty. Whoever does not know about the seven unmentionable secrets of occultism, will think grotesque what this 7<sup>th</sup> stratum of the Earth's interior contains. It holds all the forces of nature transposed into the spiritual. I should like to make myself understood in this way : Think of magnetism, electricity, warmth, light, or any power in nature, but transposed into the spiritual. For instance a magnet attracts iron. That is an inorganic effect. Think of this effect transposed into the spiritual as if the magnet would attract the iron from some interior soul sympathy. In the same way think of an electric wiring transposed into spirituality and morals as if the natural forces were not mechanical, indifferent powers - but had moral powers. Imagine the powers of warming, attraction, or repulsion morally ; imagine them wishing to do a good deed to people, and feeling something in the soul while doing so. Imagine all nature morally to begin with. -

Aber nun denken Sie sich die ganze Natur unmoralisch. Also alles, was Sie als moralisch in der Menschennatur vorstellen können, denken Sie sich ins Gegenteil verkehrt. Dann haben Sie dasjenige, was in diesem Erdspiegel erscheint. Also es gibt dort zum Beispiel nichts von dem, was man hier auf der Erde als das Gute bezeichnet, sondern im Gegenteil, alle diejenigen Wirkungen sind dort am stärksten, die das Gegenteil dessen sind, was die Menschen als gut bezeichnen. Solche Eigenschaften haben die materiellen Bestandteile dieser Schicht unserer Erde. Sie hatte ursprünglich davon noch viel mehr, aber sie werden im Laufe der Entwicklung der Moral immer besser, so dass die mo-

Now, however, think all nature was immoral. So think of everything you can imagine as moral in human nature, turned into the contrary. Then you have what appears in this Earth's mirror. For instance there is not anything there we would call good on Earth. On the contrary all those effects are strongest that are the contrary to what people call good. Such are the characteristics of the material components of this stratum of the Earth. Originally there were many more, but people are getting better and better in the development of morals. So that the moral

*ralische Entwicklung unserer Erde eine völlige Umsetzung der Kräfte in diesem Erdspiegel vom Unmoralischen ins Moralische bedeutet. Der moralische Prozess in der menschlichen Gesellschaft hat nicht nur Bedeutung für die Gesellschaft selbst, sondern auch für den ganzen Planeten. Sie kommt dadurch zum Ausdruck, dass sich die Kräfte dieser Schicht in moralische Naturkräfte verwandeln. Wenn unser Menschengeschlecht so weit sein wird, dass es die höchste Moral erzeugt haben wird, dann wird alles Antimoralische in diesem Erdspiegel überwunden und ins Moralische verwandelt sein. Das ist der Sinn der siebten Schicht.“ (R.-Steiner 96:36 f, II : 4/16/1906).*

*„Achtens : In diesem Kreise erscheint alles zerstückelt und bis ins Unendliche wiedererzeugt. Nimmt man eine Pflanze oder einen Kristall und konzentriert sich auf diesen Kreis, so erscheint darin Pflanze und Kristall ins Unendliche vervielfacht.“ (R.Steiner 94:109 , XVI : 6-12-1906).*

*„Den achten Teil des Erdinneren bezeichnet man mit verschiedenen Namen. In der Pythagoreischen Schule des Altertums trug diese achte Stufe den Namen **Zahlenerzeuger**. In der Rosenkreuzerschule wird sie **Zersplitterer** genannt. Diese achte Schicht, die sich nun wieder aus einer Anzahl Kräfte zusammensetzt, hat eine höchst merkwürdige Eigenschaft, die sich nur auf eine eigenartige Art herausfinden lässt. Wenn der Geistesschüler einen Grad erreicht hat, wie er in der christlichen Einweihung erst nach der Auferstehung erlangt wird, dann muss er, um überhaupt eine Vorstellung von dem zu bekommen, was hier vorgeht, folgendes tun. Er muss zum Beispiel eine Blume nehmen und diese sich geistig genau vorstellen, dann sich auf diesen Ort im Erdinneren konzentrieren, und zwar so, als er durch die Blume in diesen Ort hineinsehen würde. Dann zeigt sich durch die Blume hindurch alles ver Hundertfach und vertausendfach. Deshalb der Name Zersplitterer. Wenn Sie etwas Formloses nehmen, etwa ein Stück Holz, so ist das nicht der Fall. Wenn Sie dagegen eine Pflanze, ein Tier oder auch einen Menschen nehmen, so erscheinen sie Ihnen dann in unzähligen Exemplaren. In ähnlicher Weise erscheint Ihnen auf diese Weise aber auch ein Kunstwerk vervielfältigt. Also nicht ein bloßes Stück ungeformter Materie, aber ein Kunstwerk, gleichgültig welcher Art es auch ist, wenn es nur materiell ist : Das erscheint in*

*development of the Earth will mean that all the powers within this Earth's mirror will turn from what is immoral to what is moral. The moral process in human society does not only matter for society itself, but for all the planet. This can be seen when the powers of this stratum become natural forces that are moral. When mankind will have gone so far as having created the highest morals, then everything immoral in this Earth's mirror will have been overcome and changed into morals. That is what the 7<sup>th</sup> stratum is for.*

*8<sup>th</sup> : In this stratum everything seems cut up and infinitely recreated. Take a plant or a crystal and concentrate on this stratum - then the plant or the crystal will appear multiplied infinitely.*

*There are various names for the 8<sup>th</sup> part of the Earth's interior. In antiquity at the Pythagorean school this 8<sup>th</sup> level was named **generator of numbers**. In the school of Rosenkreuz it is called **shatterer**. This 8<sup>th</sup> stratum, which again is composed of a number of forces, has an utterly strange characteristic, which can only be found out in a peculiar way. When the spiritual pupil reached a stage which in Christian initiation is attained only after the resurrection, he must do the following things to come to a mere idea of what is going on. For instance he is to take a flower and imagine it meticulously. Then he is to concentrate on this stratum in the Earth's interior in a way as if looking into this stratum through the flower. Then everything is seen through the flower multiplied by hundreds or thousands. That is why the name is shatterer. If you take something shapeless, a piece of wood e.g., then this will not happen. If, however, you will take a plant, an animal, or a human they will appear in innumerable samples. A piece of art, too, will appear multiplied in a similar way. Not a mere piece of unformed matter but a piece of art of whatever kind will*

*unzähligen Exemplaren vervielfältigt. Das ist eine Eigenschaft dieser Schicht ; deshalb wird sie eben Zersplitterer oder in der Pythagoreischen Schule Zahlenerzeuger genannt, letzteres deshalb, weil sie in vielfacher Zahl zeigt, was auf der Erde in einem einzigen Exemplar vorhanden ist.“*  
(R.Steiner 96:37 f , II : 4/16/1906).

*„Diese Region nun ist der Sitz alles Unharmonischen, aller Unmoral, alles Unfriedens. Alles strebt dort auseinander. Sie ist das Gegenteil von Liebe. Gelingt es einem Schwarzmagier, bis zu ihr vorzudringen - und es steht dies im Bereich seiner Kräfte -, so wird das Böse in ihm noch gewaltig verstärkt. Auf diese Sphäre nun hat die jeweilige Moral der Menschen einen ungeheuren Einfluss. Wenn es den Menschen immer mehr gelingt, die Unmoral zu beseitigen und die Moral an ihre Stelle treten zu lassen, so wird sich auch diese Zone immer mehr und mehr zur Ruhe begeben. Dann findet auch ihrerseits wieder eine Rückwirkung auf die Gesinnungen der Menschen statt.“* (R.Steiner 97:281 f , XXII : 4/21/1906).

*„Die neunte und letzte Schicht ist sozusagen der Wohnsitz des **Planetengeistes**. Sie zeigt zwei eigentümliche Erscheinungen. Man könnte sie mit einem Menschen vergleichen, denn sie besitzt ein Organ, das einem Gehirn ähnelt. Ein anderes Organ gleicht einem Herzen. Auch der Planetengeist ist Veränderungen unterworfen, die mit der der Menschen in engem Zusammenhang stehen.“* (R.Steiner 97:282 , XXII : 4/21/1906).

*„Neuntens : Diese letzte Schicht besteht aus einer mit moralischer Aktivität ausgestatteten Substanz, aber ihre Moralität ist entgegengesetzt derjenigen, die sich auf der Erde entfalten muss. Denn ihr Wesen, die mit ihr verbundene Gewalt, das ist : die Trennung, die Zwietracht und der Hass. Hier in der Danteschen Hölle befindet sich Kain, der Brudermörder. Diese Substanz ist entgegengesetzt allem, was unter Menschen gut und schön ist. Die Bemühung der Menschheit zur Verbreitung der Brüderlichkeit auf der Erde vermindert in entsprechendem Maße die Macht dieser Sphäre. Es ist die Macht der Liebe, die in dem Grade, wie sie sich vergeistigen wird, sogar den Leib der Erde umbilden wird. Diese neunte Schicht ist der substanzielle Ursprung von dem, was auf der Erde als*

*as long as it is material : that will appear multiplied in innumerable copies. That is a characteristic of the stratum ; that is why it is called shatterer - or generator of numbers at the Pythagorean school - because it shows in multiple numbers what exists just once on Earth.*

*This area is indeed the seat of everything inharmonic, everything immoral, of all strife. Everything strives to burst asunder. It is the contrary of love. If a black magician succeeds in advancing that far - and it is something his powers will allow him to do -, then the evil within him is enhanced enormously. A person's morals has a terrible influence on this sphere. As mankind will succeed more and more in abolishing immorality and replacing it by morals, then this zone, too, will quieten down more and more. Then this zone will enhance a rebound effect on man's thinking.*

*The 9<sup>th</sup> and last stratum may be called the home of the **planet spirit**. There are two curious characteristics. We might compare it with a human shape because it contains an organ similar to a brain. Another organ resembles a heart. The planet spirit, too, is exposed to changes closely connected to man's development on Earth.*

*9<sup>th</sup> : This last stratum consists of a substance endowed with moral activity. But its morality is contrary to the morality that needs to unfold on Earth. Because its essence, the power connected to it, is separation, discord, and hatred. Here in the Dantesque hell there is Cain, murderer of his brother. This substance is contrary to everything good and nice among humans. As people strive to enhance fraternity on Earth the power of this sphere will diminish in corresponding measure. The power of love when spiritualizing will even go as far as transforming the Earth's body. This 9<sup>th</sup> stratum is the substantial source of*

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*schwarze Magie erscheint, das heißt als Magie, die auf den Egoismus begründet ist.*“ (R.Steiner 94:109 f , XVI : 6/12/1906).

*what appears as black magic on Earth, i.e. of magic founded on egotism.*

May at least the last two strata encourage us in spite of the confused times of ours never to give up the endeavor of caring for the Earth's future and for our future going with it.

Finally the **Earth's core**. It reminds us of a coming theory of mass or energy preservation - the way you might like to look at it - while trying to imagine the future of black holes. Which quite often is still called personal speculation by the majority of physicists in our days.

*„Sehen Sie, ein Planet wird in der Tat im Laufe seiner Entwicklung immer kleiner und kleiner, er zieht sich zusammen. Das ist so das Schicksal der Materie des Planeten ; aber das ist nicht alles, das ist nur etwas, was sozusagen das physische Auge und physische Instrumente am Planeten betrachten können. Es gibt eine Entwicklung auch des Materiellen über diesen Punkt hinaus. -*

*Look, indeed a planet diminishes more and more in the course of its development. It will contract. Such is the fate of a planet's matter ; but it is not enough, it is just what the physical eye to say so and physical instruments can observe with the planet. There is indeed a development of matter, too, further than that. -*

*Und jetzt wollen wir diese Entwicklung über diesen Punkt hinaus einmal ins Auge fassen, und ich komme auf das, wovon ich gesagt habe, dass es für einen Gegenwartsverstand schwer, vielleicht gar nicht begreiflich ist. Es ist nun so, dass die Erde sich fortwährend zusammenzieht. Dadurch drängt sich die Materie von allen Seiten nach dem Mittelpunkt. Und jetzt sage ich, selbstverständlich mit vollem Bewusstsein, dass es ein Gesetz von der Erhaltung der Kraft gibt, aber auch im vollen Bewusstsein der jedem Okkultisten bekannten Tatsachen : Es drängt sich die Materie gegen den Mittelpunkt immer mehr und mehr zusammen, und das Eigenartige ist, dass die Materie im Mittelpunkte verschwindet. -*

*Now let us have a look at this development beyond this point. Once again I am coming to what I said is difficult for a mind of our days to understand, and perhaps it cannot be understood at all. The Earth does contract continuously. That is why matter presses towards the core from all sides. Of course I do respect the law of preservation of power but at the same time I am conscious of the facts known to every occultist : Matter compressing more and more towards the core curiously disappears in the middle. -*

*Um es ganz anschaulich zu machen : Denken Sie sich, Sie hätten ein Stück Materie, das würde immer mehr und mehr in den Mittelpunkt hineingedrängt - im Mittelpunkt verschwindet es ; es wird nicht nach der anderen Seite hinüber gedrängt, es verschwindet tatsächlich im Mittelpunkt in NICHTS ! So dass Sie sich vorstellen können, dass die ganze Erde einstmals, indem sich die materiellen Teile gegen den Mittelpunkt zusammendrängen, in den Mittelpunkt hinein verschwindet. -*

*Let me describe it vividly : Imagine you had a piece of matter which would be squeezed more and more into the middle. In the middle it disappears. It is not squeezed to the other side. It really disappears in the middle to NOTHING ! So you may imagine all the Earth by and by disappearing in the middle as the material particles squeeze towards the middle. -*

*Das ist aber nicht alles. In demselben Maße, wie das in den Mittelpunkt hinein verschwindet, in demselben Maße erscheint es im Umkreise. Da tritt es wieder auf. An einer Stelle des Raumes verschwindet die Materie, und von außen tritt sie wieder auf. Alles, was in den Mittelpunkt hinein*

*That, however, is not everything. As it disappears in the middle it appears in the surroundings. There it emerges again. Matter disappearing in one place in space reappears again outside. Everything disappearing in the*

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*verschwindet, kommt vom Umkreise wiederum herein, wird herangezogen, und zwar so, dass hineingearbeitet ist jetzt in diese Materie alles das, was die Wesen, die auf dem Planeten gearbeitet haben, der Materie eingeprägt haben ; natürlich nicht in seiner heutigen Form, aber in einer Form, wie sie ihm eben durch diese Umwandlung gegeben wird. Sie werden den Kölner Dom, indem seine materiellen Teilchen in den Mittelpunkt hinein verschwinden, von der anderen Seite wieder ankommen sehen. Nichts, nichts geht verloren von dem, was gearbeitet wird auf einem Planeten, sondern es kommt wieder von der anderen Seite her. -*

*middle will reenter from the surroundings, is attracted again. Everything the beings on this planet had achieved and impregnated into matter, is worked into this {new} matter. Of course not in the same form as today but in a form created by this transformation. You might see Cologne cathedral disappearing in the core with all its material particles, and arriving from another side. Absolutely nothing is lost of what had been worked on on a planet. It comes back from the other side. -*

We might call it inverting. - Continuing the quotation :

*Dasjenige, was da angekommen war im Beginne unserer Erdenentwicklung vor der Saturnentwicklung, das müssten wir auswärts setzen, außerhalb des Tierkreises. Die Urweltweisheit hat es genannt den Kristallhimmel, und in diesem Kristallhimmel waren deponiert die Taten der Wesen einer früheren Evolution. Sie bildeten sozusagen dasjenige, auf Grund dessen die neuen Wesenheiten zu schaffen begannen. Wie gesagt, das ist für einen Gegenwartsverstand außerordentlich schwer zu fassen, weil der daran gewöhnt ist, nur das Materielle ins Auge zu fassen, {und} weil er nicht gewöhnt ist, einzusehen, dass an einer Stelle aus dem dreidimensionalen Raum das Materielle verschwinden kann und an einer anderen Stelle, nachdem es durch andere Dimensionen gegangen ist, wieder zurückkommt. Solange Sie mit Ihrem Vorstellen im dreidimensionalen Raum bleiben, können Sie das nicht fassen, denn das geht aus dem dreidimensionalen Raum heraus. Daher ist es nicht zu sehen, bis es von der anderen Seite in den dreidimensionalen Raum wieder hereinkommt. In der Zwischenzeit ist es eben in einer anderen Dimension. “ (R.Steiner 110:157 ff, VIII : 4/17/1909).*

*We would have to place outside, outside the zodiac, what had arrived in the very beginning of the Earth's {solar cosmos} development, earlier than {OLD} Saturn's development. The wisdom of the primordial worlds called it the crystal heaven, and in this crystal heaven were kept the deeds of beings of an earlier evolution. They had built up to say so what was the basis of what the new beings {of our solar cosmos, e.g.} began working with. As I said, this is extremely hard for a mind of our days to comprehend because we are used to keeping an eye on mere matter. Because we are not used to realizing that matter may disappear from three-dimensional space in one place and reappear in a different place after having gone through other dimensions. As long as you are staying in three-dimensional space you cannot grasp that. Because it exceeds three-dimensional space. So it cannot be seen until it reenters three-dimensional space from a different side. In the meantime it is just in a different dimension {existence : spiritual from our point of view}.*

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We may feel reminded of Carlo Rovelli : «White Holes». We may feel reminded, too, of the *pralayas* between *planetary development states* transposed to a wider plane we do not yet have a vocabulary for. We may feel, too, Steiner himself being amazed at his own *clairvoyant* imaginations from future times. The multiverse with unnumbered dimensions was not a theory yet, and four-dimensional space is a usual concept just in our days. At any rate it is most astounding what Steiner saw *clairvoyantly* ahead of his life time.

This chapter was about the Earth's geological layers, and then her strata in anthroposophy. But when did the Earth's layers originate ? - Unfortunately such a chronological allocation can only be dealt with in chapter D.5 «During *EARTH* : Details». Before that we need to learn something about the difficulties of chronological allocations. It is best to turn to Dankmar Bosse himself, who succeeded in making his academic profession, geology, come to terms with his anthroposophic convictions and interest.

## D.4. Dating References

The following chapter is an excerpt from a sub-chapter in *Bosse 2015*, namely *pg 618 - 624*. We are grateful to the author as well as to the Ita-Wegman Publishing Company for their friendly authorizations for reproduction. It is about the question in how far we can rely on age determinations, about Steiner's estimates of the Earth's age, and about criteria of comparison we might use.

### Mineral Development in the Course of Time

by Dankmar Bosse

(...) Historical events are ranged by years. We do need a similar measuring device for the history of the Earth. Measuring years as an absolute time criterion, does not help for the time being. Any number on the geologic time scale cannot be imagined, it stays abstract and a pure feature of calculations. The time factor appears as a border to cognition. On the other hand we can find in rocks numerous images of multiple rhythms of colors, of forms, and of materials pointing to **relative ages** : to a sooner or later. (...) Rhythms indicate life processes in that they swing in a polarity, progressing incessantly and irreversibly. The Earth's layers when undisturbed on top of each other, indicate a relative course of time in that the rocks are younger and younger when regarded from below to above. This so-called basic stratigraphic law was established in 1669 by the Dane Nikolaus Stensen. While the build-up of rocks or mountain ranges will not change any more in the end - i.e. when a rock remains in the Earth's crust without altering - there are continual processes of other occurrences in the Earth's history going on at the same time. So the eras between the rocks' origin and present times can be bridged. Before all the build-up of rocks is connected to plant and animal development, and its continual development can be read at fossils.

**Absolute time estimates** in years are different. Such a basic cosmic rhythm coming from the Earth's relation to the Sun, shows in the growth rings of trees for example. From numerous local measurements standard curves have been derived of the yearly growth rate. So wood has been dated as far back as 5,000 BCE almost without a gap [Schweingruber 1983]. We can get further back with a number of clay strata with fine rhythms from melting glaciers of the last Ice Age for instance. Or considering the relation of oxygen isotopes wavering rhythmically bored in inland ice in Greenland and the arctic. It is there that more than 400,000 rhythms were determined mirroring the changed warmth relations of water and interpreted as yearly rhythms. They can be correlated to the rhythm of calcareous shells of unicellular organisms from deep-sea sediments wherein the cold periods during the Ice Age are preserved as well. In sediments of earlier eons, too, there were numerous rhythms investigated and enumerated. Supposedly the cause of such observation results are **yearly rhythms**. Of course this is just approximately valid because the Earth's own rotation and orbit around the Sun developed by and by during the Earth's history up to today's rhythm. Still other rhythms of the early Earth's organism may be inquired, too.

The most important method of identifying an **absolute time scale** is to determine the mass relations of starting and end products of **decay series of isotopes** of radioactive elements. The number of years can be figured because the initial amount of isotopes decreases exponentially in the course of time [Fig. 1425 : Radioactive decay {Fig. D.4.1. in here}], i.e. in equal time spans half the amount of isotopes decays each time [half-life]. Said in a different way : The amount of a substance that did not decay yet, increases exponentially when going back in time. Half-lives measured today are supposed to have remained constant supposing that the physical processes and the Earth's orbit around the Sun - i.e. the years - remained constant since the crystallization of the oldest granites and gneisses. Decay periods of every isotope vary considerably ; for instance uranium 238 , important for determinations in the Earth's history : uranium 238 to thorium 234 in 4.4 billion years ; this to protactinium 234 in 24.1 days ; this to uranium 234 in 6.7 hours ; this to thorium 230 in 250.000 years etc. finally as far as the end product lead 206 . Other decays reach back about as far. Because some of the half-lives take a long time, scientists concluded the Earth and primordial life forms were very old. Yet the higher the figures the less do they mean, i.e. the more they become a formal operand used as a merely relative scale in practice : For instance to structure and correlate world-wide fossil-free rocks of the Precambrian, or to specify the varying solidification times of crystalline rocks such as the relative age of basaltic ocean floors. That is how they can be assigned to epochs of the Earth's history which are mainly structured by the continual development of the animal world. Still the high figures of millions of years are often taken as absolute age specifications to justify theses of geologic developments - such as the time spans of sedimentation, continental drift, valley erosion, erosion rates, animal species originating and becom-

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ing extinct etc. - to draw far-fetched conclusions about the course of evolution and the Earth's history.

Rudolf Steiner, on the other hand, wrote as early as 1882 in an essay *Einzig mögliche Kritik der atomistischen Begriffe* {*The Only Criticism Possible Vis-à-Vis Atomistic Concepts*} (amendment to CW 63 ; 1978) and then in 1890 (CW 1 ; XVI/2) that there is neither absolute space such as an empty vacuum nor absolute time such as an unchangeable measurement of one item following another, i.e. where changes would occur as if in a «bowl». This Newtonian concept of time were to be corrected because time is an expression of **facts that are sequentially dependent on each other by what they mean**. Time exists just through processes of the sensory world ; it comes into existence only where the essence of anything appears in a sensory way. The essence of anything, however, could only be detected in ideas. Later on Rudolf Steiner describes - on the basis of the fact that evolution necessarily takes time - how the human organism apart from the head shows it is younger than the head, and the organism of the head older than the rest of the organism of the body. With this example we have two sequences of sensory facts which depend on each other : for once the year and for twice human development. *For hypotheses of our time long spans of time are purely hypothetical, too. With any statement time can only have a meaning if we are capable to extract time from other concrete presuppositions, i.e. if we can formulate what was earlier and what came later, in the way of facts. We ought not to simply establish currants of development and then insert time as if it was something external.* (R.Steiner 73 ; 12/11/1917).

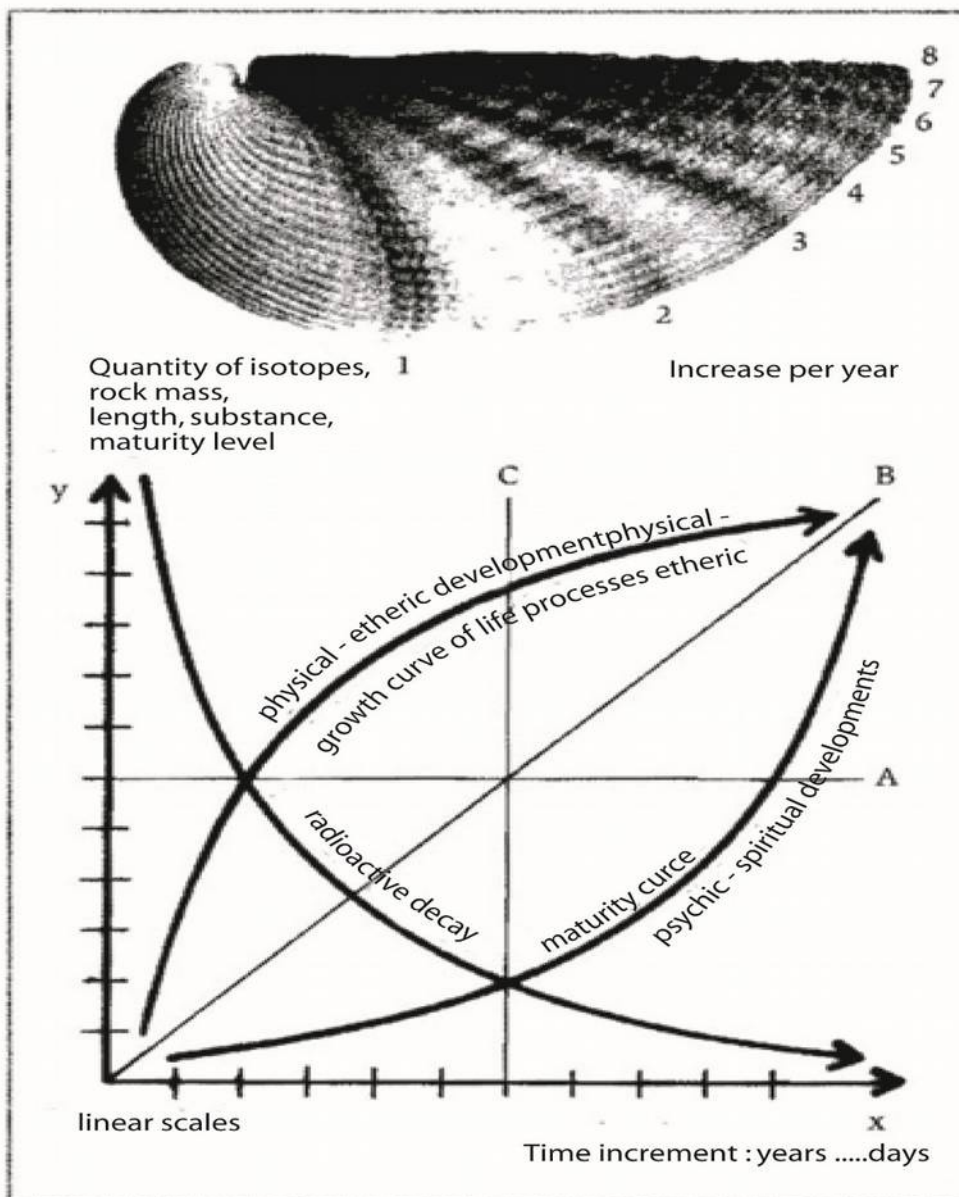


Fig. D.4.1.

Explaining Fig. D.4.1. : Above : The yearly growth stripes of a common cockle. - Below : y-axis : The **growth curve** of life processes - physical-etheric developments and the curve of psychic and spiritual

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**maturation** are compared to the **decay curve** of radioactive isotopes. The curves show what is common and what is the opposite in that they can be transposed by mirroring : The growth curve and the decay curve can be mirrored by line A, parallel to the x-axis ; the growth curve and the maturation curve are mirrored by line B in the angle bisector of the axes x and y ; and the maturation curve and the decay curve by line C, parallel to the y-axis. For the thorough considerations and corrections I feel grateful to Luc Vandecasteele, MD, Gent (Belgium), and to Heiner Frei, mathematician, St. Gallen (Switzerland).

In Fig. D.4.1. the **growth curve** of life processes shows the physical and etheric development of human as well as animal life. In a constant unit of time there occur more development steps, there accumulates more substance, and there is more growth than later when all procedures slow down in old age going as far as death - in rhythms, of course. E.g. with a flower the metamorphosis of the vegetative sequence in foliage is hemmed at the blossom. The common cockle {upper part}, taken here as an example of human or animal development, is growing faster in the beginning and slowing down later. The growth strips show there is less and less substance added every year. (...) The evolution of animal or plant species shows the same principle {as the growth curve}. At first there are various build-ups appearing in vivid development steps, and in the end they are merely specialized and differentiated (...). {Likewise} human physical development steps are counted in days or weeks with an embryo, in weeks or months with a baby, and in years with a toddler. The **maturation curve** shows psychic and spiritual developments as psychic steps per time unit, e.g. as the child is learning. The psychic and spiritual development of humans or cultural periods progress slowly at first, intensifying later. Seen spiritually we achieve more and more in ever shorter time. Here we should appreciate what Rudolf Steiner describes as the occult-astral time stream running backwards, from the future into the present, meeting the past there (*CW 262*, 2/4/1913 ; Hueck 2012). {See in this book vol. I, part I, chapter B.6. «The Double Direction of Time»}. This is the cause of the double spiral of evolution as it was described by Bockemühl (1977 b) with plants, or in the development of animal life (Bosse 2002, pg 170 and 184).

Principally the growth curve and the **curve of radioactive decay** have a characteristic in common. They mirror at the A axis. They begin with many steps which diminish later on. Radioactive decay declines exponentially because just half the rest of isotopes decays per time unit. Organic growth declines exponentially, too. The growth curve, however, does not show in time the amount of substance added per time unit, but the absolute length or weight or volume etc. *attained*. If on the growth curve the y-axis would show the amount or the weight added per time unit, the curve would be identical with the decay curve.

The maturation curve shows a development accelerating in the future ; the growth curve on the other hand shows a development decelerating in the future. So the life processes - in the etheric body - show they are in a polarity vis-à-vis maturation, which is in the astral body. They are mirrored in straight line B. If you would imagine this spiritual-mental {maturation} curve to run the other way, you would see time running backwards. The maturation curve runs opposite in polarity to the decay curve. Maturation is initially slow while later on there are more and more steps per time unit, until they will diminish towards the end ; with radioactive decay a great amount will decay in the beginning, while diminishing per time unit later on. These curves mirror in straight line C.

The **processes of a living Earth** may be depicted by the growth curve, too. This would correspond to substance diminishing with the heart muscle and other {organs of} living beings. For instance sediment rock layers average an exponential loss. Of course the thickness of rock layers varies in a wide scope, depending on the local site of erosion, but sweepingly we may state : peridotitic layers in hundreds of kilometers ; basaltic or granite layers in ten thousands of meters each ; crystalline shale in thousands of meters ; sediments in hundreds of meters ; loose rock in tens of meters. Assuming the Earth is a living being the diminishing processes seem to indicate she is about to go in the direction of dying - comparable to today's life processes which cannot be grasped by radioactive decay. A radiometric age confirms the time when the system is closed physical-chemically, and the proportions of volatile substances, too, cannot change any more. That means the result established can only reach as far as the time when the rock cooled down under a certain level for the last time. So the decay curve begins only when the Earth had already decayed in part.

Lately various scientific sides expressed **accumulating criticism** in relation to the method of radiometric dating. Here just a few of them will be touched. Ratings for organic substances are based on the content of C<sub>14</sub> in the atmosphere and the exchange of isotopes with the ocean surface, which however is subject to wide fluctuations. The isotope exchange plays a great role, too, when rating the aforesaid glacier rhythms. Carbon isotopes with short half-life periods allow connecting to historic ages as well as to dendrochronology, for instance by comparing wood from Egyptian graves. Such ratings, however, underwent alterations quite often so that ratings done between 1960 and 1980 had to be reduced by half [Geyh 1983, Blöss & Niemitz 1997]. Another method is discussed by Don Deyoung [2005]. It is about radiometric ratings of the amount of helium arising from alpha-rays. They show 4000 to 8000 years for rocks otherwise rated many millions of years. As an explanation it is suggested that ra-

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diactive substances may have decayed more rapidly in the Earth's early history. Abundant research confirms the ratings but there are various conclusions possible. Other phenomena, too, indicate decidedly shorter periods of the Earth's history, such as quite fast sedimentation periods, detected with the condition fossils are preserved in, with fossil tracks, and diagonal layering. Then the long time spans of millions of years are supposed to be due to the sedimentation gaps.

Brandt [2006] used a totally different rating by examining time ratios of **human prehistory** and **protohistory** [which deals with times that immediately antedate recorded history]. For the first time there were attempts to measure the stone age quite differently, totally independently of radiometric rating. A first aspect is the estimated number of people on earth : At the end of the stone age there were 5 to 10 millions living ; around the Christ's life time 200 to 250 millions, at the beginning of the modern era 500 millions. Then the rapid rise began increasing to 7.2 billion today {2015 ; 8 billion in 2024}. When setting radiometric ratings for the old stone age {2.6 million to 600 thousand years BCE}, the population would increase improbably slowly, contradicting any comparisons. Another source is the kinds of nutrition or the development of pandemics. Brandt concludes : *We propose to shorten human history drastically as a plausible solution to the enigmas that in the paleolithic population hardly increased at all, that culture and techniques stagnated, that hardly any stone tools were found, that there were rather disperse settlement sites, and settlement sites less stable, and fewer examples of cave intrusions in the paleolithic.* (pg 143 – 144 , and concluding :) *Instead of 2 million years rated radiometrically {human} history may have taken just a few thousand years.* This would correspond to Rudolf Steiner's spiritual-scientific research (...).

Another basic problem consists in half-life periods that can only be determined in a very short moment in laboratories today considering their long duration. The initial increase is meant to be detected from the end of an exponential curve running asymptotically {a straight line associated with a curve such that as a point moves along an infinite branch of the curve. The distance from the point to the line approaches zero and the slope of the curve at the point approaches the slope of the line [Meriam-Webster 7/25]}. Physics consider as empirical evidence that **natural constants do not change** during all the time the Earth has been existing, and neither do half-life periods and gravitation. Surely it is not the exponential course of the decay curve that fakes the extension of time in the past, but the duration of half-life periods presuming they were constant all the time. Yet this cannot be proved, and the contrary cannot either ! Such questions can only be clarified when considering higher-level aspects. One of them would be the question : Since when may we count with such regularities of inorganic nature at all ? Rudolf Steiner mentions that the physical laws we find in our days, may not apply to the question of time spans on Earth. The Earth had originated later than Haeckel or others were to have estimated (*CW 73 , 11/12/1917*) : *more than a hundred million years* at the time. According to Rudolf Steiner the reason that in the Earth's early prehistory there were different physical conditions than today, is that today the aggregate states are separated from the ether forces. Whereas they had been together in a life sphere. *Physics are not eternal. It is not valid any more for totally different kinds of reality. For of course a reality wherein gas is shining directly internally {as in the Hyperborean age}, is a totally different reality than one wherein gas and light are relatively independent from each other. (...) Because the moment when we are leaving the sphere, when gravitation ceases and everything is flowing towards outside, in that moment all our physical world view ceases. (...) In the same way we cannot think the same physical laws could be applied to a certain antiquity and after a certain time. Exactly that is the madness of the Kant-Laplace theory to think we might apply backwards in any way we like what we abstracted from actual physical appearances on Earth (*CW 321 , 3/13/1920*). Is isotope decay connected to life really a process as constant as in the non-organic field ? Might half-life periods have developed, too ? Was there radioactive decay at all in the Earth's early life sphere ? Was there a time when it began ? Concerning the last question there probably is some misunderstanding to what Rudolf Steiner said (*CW 197 , 7/30/1920*) : that there is radioactivity only since the turn of times between BCE and CE. Probably he meant Radium 226 with a half-life period of 1617 years. Rudolf Steiner spoke of "millions of years" earlier than 1910 above all, but all the time in the sense of unimaginably long time spans characterized by certain development steps, not in the sense of years counted but as qualitatively characterizing duration in the sense of eons. I collected all the quotations concerning (*Bosse 1993 , pg 382 ; 2002 , pg 39*). Between 1917 and 1924 he opposed increasingly, counting millions of years in the past or in the future. The calculations of geology were correct and logical but would not fit the reality of a living Earth. Because millions of years ago the Earth did not exist yet, as much as I could not figure out my form as a physical human 300 years before or after starting with today's conditions.*

The **concept of years** in today's sense is what Rudolf Steiner used only up to some 3000 years BCE, i.e. up to the time when history began to be handed down. From 1908 on he saw an earlier process at the Earth's precession motion {a comparatively slow gyration of the rotation axis of a spinning body about another line intersecting it so as to describe a cone [Meriam-Webster 7/25]} (e.g. *CW 174 , 1/28/1917*). It concerns the seeming **motion of the vernal equinox** through the zodiac contrariwise to the Sun's yearly course within some 25,920 years, a *platonian world year*. It seems meaningful to me that Rudolf Steiner always mentioned this cosmic rhythm in connection with human development processes and their relation to the world. The number 25,920 is a cosmic-human number contained in vari-

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ous smaller rhythms : in the months of a human cultural period of 2,160 years, in the days of a human life of 72 years, in the hours of 3 years, as well as in the number of breaths a day. These connections are well clarified by Wilhelm Hoerner (1978, pg 284 – 292). This rhythm was compared to the Atlantic epoch, and its downfall to the ice age, which Rudolf Steiner dated between 4000 and 10,000 years BCE. During this time the soul and man's outer gestalt developed during 12 development stages throughout the Sun's course through the zodiac (CW 160, 9. + 10.9.1908 ; Fig. 1426 {in this book Fig. I.1. : in vol. I, part 4, chapter I.1 «Diagram Excerpt : Comparative Chronological Table by D. Bosse»}). Considering that the zodiac's images differ in time length, the years of the Atlantic cultural steps may be figured out (according to Wachsmuth 1950, pg 127). We would have the Atlantic age beginning at some 23,000 years BCE (as well in CW 349, 2/17/1923 ; CW 105, 8/10/1908 ; CW 201, 4/18/1920). A different quotation (CW 350, 7-20-1923) however states the Earth had not existed for more than a world year, and our time was somewhat more than half. He may have meant the Earth's present-day state and the Sun-Earth relation existing since the middle of Atlantis. Every time he means all of these statements in the sense of sequences depending on each other, i.e. the year in relation to the occurrences of the ice age and prehistory. Further back today's year loses its reality ; we can count back into eternity merely with numbers. That is why in the table {in this book the aforesaid Fig. I.1.} the years are numbered back just as far as some 15,000 BCE. Let us add that according to spiritual-scientific research the rhythm of day and year slowed down when looking backward in time. The Earth began turning only when the Lemurian age began, and the year from the Atlantic age on, and may have reached today's duration perhaps as late as from the middle of Atlantis.

In the summarizing overview {in this book the aforesaid Fig. I.1} I tried to correlate the linear time scale in years with the hyperbolic scale of radiometrically determined values. So we might compare occurrences in the Earth's history to those of human cultural epochs. I mean to show how Rudolf Steiner's concept of time would help to come to concrete and comparable sequences of occurrences, so as to outline a total image from various occurrences. Dieter Kötter [1992, pg 57] figured the logarithmic time scale, taking it as an exceptional case of a projection of radiometric dating, although not meaning to found a new, independent *vessel of time*. He means to design a kind of relations that might lead to an organic measurement of time. The mathematical derivatives of growth curves relate to life processes decreasing. Then this would be true for the living Earth. For the geologic eons of the Earth's total history Dieter Kötter would think of a hyperbolic scale comprising logarithms on the basis of 3.18 between the mathematically necessary boundaries of 3.8 billion and 3000 years BCE. The interim values would show the incisions of animal development : the boundary of the Precambrian / Cambrian at 575 million years, the boundary of the Cretaceous / Tertiary at 65 million years, and the maximum of the ice ages at 500.000 years in radiometric dating.

So Rudolf Steiner's concept of time helps us to come to concrete relations of time, distinguishing **four main fields** where facts of the Earth's history form sequences of occurrences contextually dependent on each other. Contrary to the millions of years their contexts contain a continuity. That is why they had already been used by practical geologic research as relative sequences referring to each other. A first sequence are the **yearly rhythms**, a substantial measure for occurrences up to some 3,000 BCE. The **platonic year** is an option for earlier times to sort the early cultures of mankind with the rhythms of the ice age as far back as about the middle of the Atlantic age. These sequential occurrences can be compared to radiometric dating, too. As to epochs earlier than measuring the platonic year, i.e. from the Tertiary to the Paleozoic, the development of the fauna forms the most dense sequence of occurrences, reaching back as far as the Cambrian with multiple rhythms of rock processes, of plant developments, of the Earth's crust moving etc. Concerning how to sort the crystalline rocks of the Precambrian, or the basalts, the calculated figures of isotope decay series in minerals stood the test as the fourth sequence of relative reference values of occurrences. So wide-spread rock complexes could be chained to form sequences. So when researching a rock's age we might argue it had to be envisaged in connection with other sequential facts because they are *interconnected by what they stand for*, thus bridging the time span up to the present day.

Realizing that the scientifically and generally recognized eons and eras - in chapter D.2. «During Earth : An Overview» - indicate a sequence and not necessarily their ages, we may now feel encouraged to proceed to our principal chapter.

## D.5. During *EARTH* : Details

We juxtaposed already the *solar cosmos* and the solar system, see chapter D.1. «The Solar Cosmos Coming to Life». Now it is about what occurred during the present *planetary development state* of *EARTH*. Her ages are to be considered finer categories, and so we cannot help repeating what had been said more roughly beforehand.

Just remember : Very often Steiner speaks or writes of *planetary development states* in space dimensions : "*on Saturn / on the Sun / on the Moon*". Then he means planets with the characteristics of the respective *planetary development states* possible then. Although Saturn, the Sun, and the Moon emerged, "*separated*", only at the end of their respective *planetary development states*. - In the present text planets are written in lowercase letters, too. When however a *planetary development state* is meant to indicate a time, then the name is written in italics and uppercase letters : "*on Saturn / the Sun / the Moon*" = «during *OLD SATURN / OLD SUN / OLD MOON*».

The geographical changes first : Pangea {Fig. D.5.1. , D.5.2. , D.5.3.} as it originates and disintegrates in the continental drift as far as we know today {Fig. D.5.4.}. Could the *Moon separation* have shifted the Earth's axis considerably by its imbalance ? Then the equator ought to have shifted as well. The following images do not consider this possibility because paleogeology claims the Moon separated as early as 24.5? billion years ago.



Fig. D.5.1. *Laurasia originating* [Wikipedia.de , adapted].

Avalonia, Baltica, and Laurentia uniting from the Ordovician until the Devonian to form the northern super-continent Laurussia = Laurasia.

Middle Paleozoic :  
 Ordovician : 485.4 – 443.4 Ma  
 Silurian : 443.4 – 419.2 Ma  
 Devonian : 419.2 – 358.9 Ma



Fig. D.5.2. *Laurasia + Gondwana = Pangea emerging* [Wikipedia.de]  
 Carboniferous : 358.9 – 298.9 Ma

Paleozoic ending :  
 Permian : 298.9–251.9 Ma

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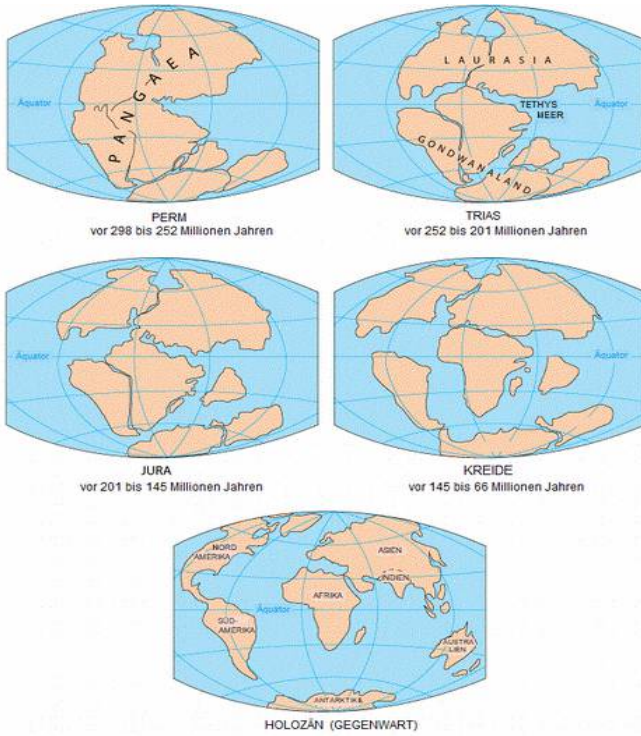


Fig. D.5.3. *Pangea dissolving* [Wikipedia.de].  
Oceans and land masses in early [ $< \sim 300$  Ma] Permian.

In the late [ $> \sim 252$  Ma] Permian Antarctica, Australia, and India begin separating from Pangea.

### Mesozoic :

Triassic : 252.3 – 201.3 Ma

Jurassic : 201.3 – 145 Ma

Cretaceous : 145 – 66 Ma

### Cenozoic «new animals»

[mammals]

66 Ma -- 0

post-glacial period

= Holocene «completely new» 11.7 thousand years ago -- 0



Fig. D.5.4. *Pangea disintegrating* : Triassic / Jurassic [Wikipedia.de].

Continental drift = continental shift, caused by plate tectonics.

### When Did the Earth's Nine Interior Strata Build Up ?

The 9 strata of the Earth's interior were dealt with - from the surface to the center - in the esoteric part of chapter D.3 «Geological Layers Until Evidencing Fossils». Now we can ask when they grew. Corresponding to their course of development we shall deal with them now from the inside out :

The three innermost strata, "*Earth's brain*" = 9<sup>th</sup>, "*shatterer*" = 8<sup>th</sup>, and "*Earth's mirror*" = 7<sup>th</sup> stratum, originated on top of each other during preliminary states of today's "*mineral-physical form state*" {see in vol. I, part 4, chapter I.2 «The 7 Planetary Developmental States of the Solar Cosmos»}. - From the 6<sup>th</sup> stratum on we can assign the Earth's strata to *ages* : As the *Polaric age* comes up, the 6<sup>th</sup> stratum superimposes : "*fire-Earth*". As the *Hyperborean age* develops the 5<sup>th</sup> stratum superimposes : "*fruit-Earth*". As the *Lemurian age* is under way we have the 4<sup>th</sup> stratum : "*water-Earth*" (*Delor 8:53 f*). When dealing with these *ages* we shall find out that the esoteric names were not chosen at will but describe the main characteristics of each *age*.

### The Anthroposophic Ages

The anthroposophic *ages* merely describe time sections during *EARTH*. We shall repeat Tab. D.2.1. enlarging it at every *age*.

Let us first remember : The *Polaric age* iterates *OLD SATURN's* development, the *Hyperborean age* *OLD SUN's* development, and the *Lemurian Age* *OLD MOON's*. Tab. B.2.1. can be adapted. The new names during *EARTH* are shown in bold letters :

During the planetary development state :			During EARTH : ages :		
Planetary development state	I OLD SATURN	II OLD SUN	III OLD MOON	IV EARTH	
Age	Polaris	Hyperboreis	Lemuris	Atlantis	
... there come up by refinement :					
<i>ether forms</i>	(finer) ↑	fire-ether = <b>fine living ether</b> (spiritual) {I}	→light-ether fire-ether (spiritual) {II}	→rhythm ether light-ether fire-ether (spiritual) {III}	→ life-ether rhythm ether light-ether fire-ether (spiritual) {IV}
	At the same time there gradually emerge by densification :	(physical) {I}	(physical) {II}	(physical) {III}	(emerging material)
<i>elements :</i>	warmth	warmth →air-like-gas-like	warmth air-like-gas-like →watery / liquid	warmth air-like-gas-like watery / liquid →earthy / solid	
	(denser) ↓				

Tab. D.5.1. Ether forms and elements developing during the ages, too.

### How do the ages and days of creation chronologically relate to the eons and eras ?

Now we need to subdivide the Proterozoic because animal life appeared earlier during the *Lemurian Age* than had been known scientifically from hard outside fossils. Since R. Steiner never gave precise time indications - especially not in the logarithmic time scale used in sciences - , the times indicated here rely on Delor.

Colors correspond to those in Tab. D.2.1.

We need not wonder that in Tab. D.5.2. on the next page the early eons are listed in just a few lines while eons approaching present days show many subdivisions. The model year and the time lines show time relations better. We, to, think 2024 was longer than 1824 : more actual, fresher, nearer to our experiences.

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Eon	Era	Period	Series	Ages	Time span	Creation days
				<i>Polaric age</i>	time originating	
				<i>Hyperborean age, 1<sup>st</sup> - 6<sup>th</sup> epoch</i>	space originating	
[super-eon : PRECAMBRIAN] :				= Earth's primordial eon	?4,570? – 538.8 Ma	1 <sup>st</sup> day
				<i>Hyperborean age, 7<sup>th</sup> epoch</i>	?4,570 - 720? Ma	of creation
<b>HADEAN</b> eon «similar to Hades»					?4,570 – 4,000? Ma	
<b>ARCHEAN</b> «primordial eon»					?4,000 – 2,500? Ma	
<b>PROTEROZOIC</b> eon of «early life»					?2,500? - 538.8 Ma	
			Paleo-Proterozoic		?2,500 - 1,600? Ma	
			Meso-Proterozoic		?1,600 - 1,000? Ma	
			Neo-Proterozoic		?1,000? - 538.8 Ma	
			Tonian		?1,000 – 720? Ma	
				<i>Lemurian age</i>	?720? - 66 Ma	
				<i>Lemuris beginning</i>	?720? - 538.8 Ma	2 <sup>nd</sup> day
			Cryogenian		?720 - 635? Ma	of creation
			Ediacaran		?635? - 538.8 Ma	
<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :					538.8 Ma up to our days	
			Paleozoic = era of «ancient life» [fossils]		538.8 – 251.9 Ma	
				<i>early Lemuris</i>	538.8 - 298.9 Ma	
			Cambrian		538.8 – 485.4 Ma	
			Ordovician		485.4 – 443.4 Ma	3 <sup>rd</sup> day
			Silurian		443.4 - 419.2 Ma	-----
			Devonian		419.2 – 358.9 Ma	
			Carboniferous		358.9 – 298.9 Ma	5 <sup>th</sup> day
			Permian	= ~ <i>middle Lemuris'</i>	298.9 – 251.9 Ma	-----
			Mesozoic = era of «intermediate life»	= ~ <i>late Lemuris</i>	251.9 – 66 Ma	6 <sup>th</sup> day
			Triassic		251.9 – 201.3 Ma	*
			Jurassic		201.3 – 145 Ma	
			Cretaceous		145 – 66 million years ago	Time up to our days
			Cenozoic = era of «recent life» [mammals]		66 Ma up to our days	
				<i>Atlantic age</i>	66 Ma - 11.7 ka	
			[Tertiary] [unused]		66 – 2.588 Ma	
			Paleogene «old parentage» [= Old Tertiary]		66 – 23.03 Ma	
			Paleocene «old unusual»		66 – 56 million years ago	
			Eocene «as unusual as dawning»		56 – 33.9 Ma	
			Oligocene «rare unusual»		33.9 – 23.03 Ma	
			Neogene «new parentage» [= New Tertiary]		23.03 – 2.588 Ma	
			Miocene «less unusual»		23.03 – 5.333 Ma	
			Pliocene «more unusual»		5.333 – 2.588 Ma	
			Quaternary		2.588 ka up to our days	
			Ice age = Pleistocene «the newest»		2.588 – 11.7 ka	
			Earliest homo erectus fossils ; mastering fire		1900 thousand years ago	
			Earliest homo sapiens fossils		300 thousand years ago	
				<i>Post-Atlantic age</i>	11,7 ka up to the future	
			Post-ice age = Holocene «completely new»		11,7 ka up to our days	
			Cheops-pyramid		4600 ya	
			the Christ born		2025 ya	
			America rediscovered 1492		533 ya	
			Anthropocene since 1825 : public railway		since 200 y	
			Atomic age since 1945		since 80 y	
			Commercial internet since 1990		since 35 y	

\* Paradise with the Lemurian fall from grace and the expulsion from paradise.

ka = thousand years ago , MA = million years ago.

Tab. D.5.2. Eons, eras, ages, and days of creation.

## D.5. During EARTH : Details

Steiner himself juxtaposed the origin of the world and paleogeologic classifications according to his *spiritual-scientific* findings :

„Die Tertiärzeit können Sie gut mit der Atlantis parallelisieren, und die Sekundärzeit können Sie parallelisieren im Wesentlichen, nicht pedantisch, mit dem, was ich schilderte als die Lemurische Zeit. Da würde also die Sekundärzeit hineinkommen. (...) -

*You may well parallelize the Tertiary time {age} with Atlantis {the Atlantic age}, and the Secondary time {age} in general - not pedantically - with what I outlined as the Lemurian time {age}. That is where the Secondary time {age} would come in. (..)*

Die paläozoische entspricht der Hyperboräischen Epoche, auch da dürfen sie nicht pedantisch die einzelnen Tierformen nehmen. Dann haben Sie das mesozoische dem Lemurischen im Wesentlichen entsprechend.“ (R.-Steiner 300 a: 96).

*The Paleozoic corresponds to the Hyperborean Epoch {age}, you must not take the animal forms pedantically one by one either. Then you have the Mesozoic corresponding in general to the Lemurian age.*

Recent *clairvoyant* visualizations (*Delor 7:176*) extend *Lemuris* from the Mesozoic [251.9 – 66 million years ago] - and then as R. Steiner did not - to the Paleozoic [538.8 – 251.9 million years ago] and the two last periods [of 3] of the Neo-Proterozoic [21,000? - 538.8 million years ago] because since Steiner's life time older life forms were found than hard shell fossils.

It looks like the *Post-Atlantic age* (11.7 thousand years ago up to the future) would correspond to the Quaternary then ? Just about so ! According to other *clairvoyant* visualizations (*Delor 6:7 f*) the conditions of an *age* press into the second half of the preceding *age*, and into the first half of the following one. We remember in vol. I , part 1 chapter A.2 subsection «Time Segments and Gradual Transitions».

When did which *hierarchies* of *spiritual beings* work ? - Of course all the time simultaneously pervading each other since they live without being bound by time or space. All the same key aspects can be found :

„Sie wissen, wie der Mensch sich auf dem alten Saturn dadurch entwickelt hat, dass die Throne ausgegossen haben ihre eigene Substanz, und dass da die erste Anlage gelegt worden ist zu dem menschlichen physischen Leib. Wir wissen, dass dann die Geister der Weisheit auf der Sonne ihm den Äther- oder Lebensleib, dass die Geister der Bewegung auf dem alten Monde den astralischen Leib eingepägt haben. Nun war es an den Geistern der Form, auf der Erde dem Menschen das Ich zu geben (...).“ (R.Steiner 107:242 , XVI : 3/22/1909).

*You know how mankind developed on {during} OLD SATURN because the thrones {spirits of will, {1.3}} poured out their own substance. It was then that the first anlage originated for the human physical body. We know that the spirits of wisdom {dominions, {2.1}} imprinted the etheric body or life body on man emerging on {during} OLD SUN, {and} that the spirits of motion {mights, {2.2}} imprinted the astral body on {during} the OLD MOON. Now it was up to the spirits of form {elohim, {2.3}}, to give man the 'I' on {during} EARTH (...).*

„Wir haben gesehen, wie eine solche Beseelung bei der Lemurischen Bevölkerung dadurch geschah, dass der physische Leib beseelt wurde von den Geistern der Persönlichkeit (Archai) ; in der Atlantischen Zeit wurden der physische und der Ätherleib durchseelt von Erzengeln ; und jetzt wurden die großen Menschheitsführer der nachatlantischen Zeit zunächst beseelt dadurch, dass die Engel zu ihnen herunterstiegen in ihren physischen

*We saw the Lemurian population receiving souls from the spirits of personality {archai, {3.1}} putting souls into the physical bodies ; during the Atlantic age (66 million years ago - 11.7 thousand years ago) the archangels {3.2} permeated the physical and the ether bodies with souls ; now during the Post-Atlantic age (11.7 thousand years ago up to the future) mankind's great leaders were initially permeated by the*

*Leib, Ätherleib und Astralleib hinein.*“  
(R.Steiner 110:107 , VI : 4/15/1909).

*angels* {in the strict sense : {3.3}} *descending into the physical, ether, and astral bodies.*

### **The 1<sup>st</sup> = *Polaric Age* = *Polaris* : Age of Fire**

The *mineral-physical* iteration of the 1<sup>st</sup> planetary development state : *OLD SATURN*

(Time originating. Time spans cannot possibly be estimated yet.)

„Die übersinnliche Evolution der Erde ging im Polarischen Zeitalter als Wiederholung des Alten Saturnzustandes aus dem Geistigen bis in einem Warmezustand über, der mineralisch-physisch, also sinnlich wahrnehmbar war. (...) Dabei unterscheidet Rudolf Steiner, wie zuvor zitiert, die lebendige Wärme, „die in Ihrem Blut pulsiert“ (GA 102, 16.3.1908), von der heutigen mineralischen Wärme, wenn Feuer brennt.“ (Bosse 2015 S. 65).

During the *Polaric age* the Earth's super-sensible evolution progressed from the spiritual as far as the warmth state as an iteration of the state of *OLD SATURN*. The warmth state became *physical* {I}, i.e. perceptible if there had been adequate senses. (...) As quoted before Rudolf Steiner distinguishes living warmth „pulsating in the blood“ (CW 102, 3/16/1908) from today's mineral warmth when a fire is burning.

It is the third iteration of *OLD SATURN*, with the same characteristics : *physical* {I}. The first iteration occurred during *OLD SUN*, and the second one during *OLD MOON*. The first iteration led to the characteristics *physical* {II}, and the second one *physical* {III}, see Tab. D.5.1.

Time originates. Time spans cannot be determined yet. This is hard for the mind to grasp. Personal experience tells us time scaled by watches is running independently from us. Perhaps we can help our imagination when remembering - and imagining ! - that according to the special theory of relativity objects and living beings moving with velocities near the speed of light will age more slowly in the direction of their motion : Watches will run more slowly because the course of time depends - logarithmically ! - on how much the object's velocity approaches the speed of light. - But even then there remains the difficulty of imagining various times existing in the universe at the same time, furthermore imagining time originating and developing gradually.

The same as *OLD SATURN*, *Polaris* consists of just one *element* : **warmth**. The corresponding *ether* is the **fire ether**, see Tab. D.5.1. That is why the corresponding strata of the Earth's interior, the 6<sup>th</sup> one, is called *fire-Earth*. From the aspect of *man emerging* we may speak of **fine living ether**.

Perhaps a table will clear up the interrelations of the following quotations :

## D.5. During EARTH : Details

During *Polaris* : What does originate how ?

The <i>Earth's astral environment</i> consisted of the Earth's <i>astral</i> mantle.	The <b>Earth</b> consisted of <b>the etheric body</b> and the <i>physical body</i> .	
The Earth's <i>astral</i> mantle was totally filled by its living aspect : <b>astral beings</b> = <b>astral human beings</b> = <b>astral human souls</b> = <i>anlagen of later human souls</i> = <i>anlagen of man's astral body</i> .	The Earth's <i>etheric body</i> = <i>ether Earth</i> , consisted of nothing but <b>warmth ether</b> , see Tab. D.5.1. Its other names are : <i>extremely fine substantiality</i> = <i>finest ether</i> = <i>astral germ of the Earth</i> .	The Earth's <i>physical body</i> consisted of just one element : <b>warmth</b> , see Tab. D.5.1.
	The <b>warmth ether</b> was totally filled by its living aspect : <b>etheric humans</b>	
The <i>astral human souls</i> impregnated the Earth's etheric body ...	... so that <b>etheric humans</b> very gradually evolved to images of <i>astral humans</i> .	
With the help of - vivifying - <b>cosmic ether</b> = ether coming from the cosmos ...	... there originated <b>vivified ether</b> = <b>life ether</b> = <b>fine living ether</b> : the first <i>anlage of a human etheric body</i> .	

Tab. D.5.3. What does originate and how during *Polaris* ?

What does the Earth consist of during *Polaris* ? How did it come about ?

„Man hat es also in dem Zeitpunkt, von dem hier gesprochen werden soll, mit einer Art von Erdenkeim zu tun. Dieser hat in sich Kräfte enthalten, welche zu der heutigen Erde führten. Diese Kräfte sind durch die früheren Zustände erworben worden. Diesen Erdenkeim hat man sich aber nicht als einen dichtstofflichen wie denjenigen einer Pflanze vorzustellen. Er ist vielmehr seelischer Natur.“ (R.Steiner 11:112 , VIII).

*At the time to be mentioned* {i.e. *Polaris*} it is about something like the Earth's germ. It contains forces {from the cherubim, {1,2}} leading to today's Earth. These forces were implemented by the earlier {planetary development} states. You must not, however, imagine this Earth germ had dense substantiality like a plant. Rather it has a soulish nature.

Why did Steiner speak of *astrality* in other places ? - The creating *cherubim* {1,2} furnish *Polaris* with gifts. We humans are used to localizing the hierarchies «above», i.e. in or at least behind stars : *astra*. *Dyanic-spiritual beings* form our souls, but we detect the godly influence as if coming from the stars. From this view point "*astral beings*", "*astral human beings*", or "*astral humans*" in the following passages are the first *anlagen* of human souls. Correspondingly "*the Earth's germ*" is also called "*the Earth's astral germ*". What is important below : Anything *astral* is *spiritual* and never *substantial*.

„In diesem Astralkeim der Erde sind zunächst nur **menschliche Anlagen**. Es sind die **Anlagen zu den späteren Menschenseelen**. Alles, was sonst schon in früheren Zuständen in mineralischer, pflanzlicher, tierischer Natur vorhanden war, ist in diesen menschlichen Anlagen aufgesogen, mit ihnen verschmolzen worden. Bevor also der Mensch die physische Erde betritt, ist er Seele, **astralische Wesenheit**. Als solche findet er sich auf der physischen Erde ein. Diese ist in einer äußerst feinen Stofflichkeit vorhanden, die man in der okkultistischen Literatur feinsten Äther nennt.“ (R.Steiner 11:112, too).

*Within this astral germ of the Earth there are human Anlagen so far and nothing else. They are Anlagen to future human souls. Everything contained in earlier {planetary development} states* {i.e. earlier than EARTH} *in mineral, plant, {or} animal nature, has been sucked up in these human Anlagen, conglomerated with them. So before man enters the physical Earth he is soul, an astral being. As such {astral being} he enters the physical {1} Earth. It exists in an extremely fine substantiality which is called finest ether in the occult literature.*

Just remember : *Ether* is not a substance in a scientific sense.

„Mit diesem Äther verbinden sich die **astralischen Menschenwesen**. Sie prägen ihre Wesenheit diesem Äther gleichsam ein, so dass er ein Abbild der **astralischen Menschenwesenheit** wird. Man hat es also in diesem Anfangszustande mit einer Äthererde zu tun, die eigentlich nur aus diesen **Äthermensen** besteht, die nur ein Konglomerat aus ihnen ist. Der **As-tralleib oder die Seele des Menschen** ist eigentlich noch zum größten Teil außer dem Ätherleib und organisiert ihn von außen.

*The **astral human beings** connect to this ether {of the Earth, see Tab. D.5.1.}. They sort of impregnate their being with this ether so that it evolves as an image of the **astral human being**. So in this initial state we are dealing with an ether-Earth which consists really of nothing but **etheric humans** and is a conglomeration of them. A mayor part of the **astral body or man's soul** {-anlage} still is outside the {Earth's} **etheric body**, organizing it from the outside.*

Here "outside" means something *spiritual*, not spatial. Space originated - by and by - later, during the *Hyperborean age*. In the same way "enveloped by an astral mantle" below should be understood as an image. - The quotation continues :

*Für den Geheimforscher nimmt sich diese Erde etwa folgendermaßen aus : Sie ist eine Kugel, die sich wiederum aus unzähligen kleinen Ätherkugeln - den **Äthermensen** - zusammensetzt, und ist von einer astralen Hülle umgeben, wie die gegenwärtige Erde von einer Lufthülle umgeben ist. In dieser astralen Hülle leben die **Astralmensen** und wirken von da aus auf ihre ätherischen Abbilder. Die **astralen Menschenseelen** schaffen in den Ätherabbildern Organe und bewirken in diesen ein **menschliches Ätherleben**. Es ist innerhalb der ganzen Erde nur ein Stoffzustand, eben der **feine lebendige Äther**, vorhanden.“ (R.Steiner 11:112 f, VIII).*

*To the spiritual researcher the Earth appears like this : It is a {non-spatial} sphere composed of innumerable small {non-spatial} ether spheres, the **etheric humans**. It is enveloped by an astral mantle the same as today's Earth is enveloped by a mantle of air. In this astral mantle there are the **astral humans** living and influencing their etheric images from there {because the **astral humans** had developed higher up than their etheric images, the **etheric humans**}. The **astral human souls** create organs in the etheric images, resulting in a **human ether life** within them. In all the Earth there is just one substantial state, the **subtle living ether**.*

The Earth consists of "etheric images" only, they are "alive" = "living ether" and were called "**etheric humans**" above because they contain the building forces to become humans later on. - These are constituents of the Earth. We should distinguish them from all the Anlagen towards the soul : "astral being", "astral human being", even the "astral germ of the Earth". Anything *astral* does not consist of any "substantial state" but of Anlagen of the soul. We may feel puzzled to mention *emerging humans* both in connection with souls developing and the Earth's *ether*, but we should distinguish these "astral human beings" from "etheric humans" both in their conditions and tasks.

All this unfolds without us being able to range occurrences in terms of time because time just arises. Hard to imagine.

- From the **physical cosmological view point** there never was a stage of pure radiation. Fractions of a second after the singularity already the universe was filled with ionized gas, but gas was to originate during the *Hyperborean age* only. *Polaris* cannot be assigned to any plausible state in physics. We cannot even speak of some state before the singularity because before that, presumably in a black hole, there is no state of pure radiation we know of either.

### When Did Earliest Life Originate ?

Steiner, all radically :

„Der ganze Erdenkörper ist ein lebendiger Organismus. Die richtige Frage ist also : Wie ist das Tote, das Leblose, entstanden ? - Es ist

*All the Earth's body is a living organism. The right question then is : How did the dead, the lifeless, originate ? -*

*eine der unsinnigsten Fragen : Wie ist das Lebendige aus dem Toten entstanden ? - weil das Lebendige zuerst war und das Tote sich als Versteinering, als Verhärtung abgesondert hat. So gab es einst auf unserem ganzen Erdkörper Leben, und das Leben, das damals vorhanden gewesen ist, als es noch kein Totes gab, war ursprünglich lebendige Materie. “ (R.Steiner 96:35 f , II : 4/16/1906). {Quotation repeated in part from vol. I , part 1 , chapter A.2 , subsection «Living on Earth»}*

*One of the most senseless questions is : How did life originate from the dead ? - because life existed first. What died was separated from what lived by being petrified, by hardening. So in prehistory there was life on the Earth's entire body, and life that existed at the time when there was not anything dead, was living matter originally.*

The *spiritual* world created the *spiritual* human germ as the earliest and only direct creation in the *solar cosmos*. All the other creatures did not originate but separated from human development. This occurred on *Polaris* already although it did not contain space, and time was just emerging.

Yet how should life be possible in *Polaris*' "*fiery-liquid state*" ?

*„In urferner Vergangenheit war sie in einem feuerflüssigen Zustande. Was unsere heutigen Steine und Metalle sind, war einmal aufgelöst in dieser feuerflüssigen Erde vorhanden. Der Einwand, dass in solcher Glut keine Menschen und keine anderen Wesen leben konnten, muss dahin beantwortet werden : Der menschliche Leib war damals in einem solchen physischen Zustande, der den damaligen Bedingungen angepasst war ; er konnte leben in einer Temperatur, die noch heißer war als heutige Schmelzöfen.“ (R.-Steiner 101:153 , III/I : 9/13/1907).*

*In the primordial past {Polaris} she {the Earth} was in a fiery-liquid state. What are rocks and metals today, existed dissipated in this fiery-liquid Earth. When objecting that not any human or any other living being could have lived in such embers, the answer is : At that time the human body was in a physical state that was adapted to the conditions then {physical {I}}; it was able to live at a temperature hotter still than today's melting furnaces.*

Somebody thinking of life just in today's forms will find difficulties envisaging their predecessors during *Polaris*. Especially since such living beings had consisted of *warmth* only. All the same contemporary *clairvoyant* visualizations specify :

Forerunners of *living beings* (Delor 7:417 and 8:166) : During every epoch of *Polaris* there originate forerunners of "*single-celled organisms of all kinds*" (Delor 7:417) :

During the 3<sup>rd</sup> epoch of *Polaris* : precursors of viruses are coming up,

during *Polaris*' 4<sup>th</sup> epoch : predecessors of archaeobacteria,

during the 5<sup>th</sup> one up to the 7<sup>th</sup> : forerunners of eubacteria and higher unicellular organisms,

during the 6<sup>th</sup> one : precursors of sponges / slime molds, and of root rudiments of later plants,

and finally during the 7<sup>th</sup> epoch of *Polaris* : predecessors of cyanobacteria.

We authors cannot help wondering how living beings could come up when time was just arising, and space was going to arise only in the next *planetary development state*. Evidently we are tied to the four-dimensional, sense-oriented world of ours.

## Earliest Human Development

The *thrones* {1.3, see Tab. B.4.1.} had sacrificed their essence, and so the *spiritual* human germs could obtain the **first anlagen of their physical bodies**. In the following quotations R. Steiner describes mankind's living conditions during *OLD SATURN*, but they were similar, although condensed, during *Polaris*, and without a *pralaya* they did not really separate *Polaris* from the next *age*, transitions being possible.

„Von den gegenwärtigen vier Gliedern der menschlichen Wesenheit ist der physische Leib das älteste. Er ist auch dasjenige, welches in seiner Art die größte Vollkommenheit erreicht hat. Und die übersinnliche Forschung zeigt, dass dieses Menschenglied bereits während der Saturnentwicklung vorhanden war.

Es wird sich zeigen in dieser Darstellung, dass allerdings die Gestalt, welche dieser physische Leib auf dem Saturn hatte, etwas durchaus Verschiedenes von dem gegenwärtigen physischen Menschenleib war. Dieser irdische physische Menschenleib kann in seiner Natur nur dadurch bestehen, dass er in Zusammenhang steht mit Lebensleib, Astralleib und Ich (...). Ein derartiger Zusammenhang war auf dem Saturn noch nicht vorhanden. Damals machte der physische Leib seine erste Entwicklungsstufe durch, ohne dass ihm ein menschlicher Lebensleib, ein Astralleib oder ein Ich eingegliedert waren. Er reifte während der Saturnentwicklung erst dazu heran, einen Lebensleib aufzunehmen. Dazu musste sich der Saturn erst vergeistigen und sich dann als Sonne wieder verkörpern.“ (R.Steiner 13:151 f, IV).

*The physical body is the oldest member-of-being, of which there are four of them actually. Among them the physical body attained the highest perfection in its way. Supersensible research shows that this human member-of-being existed during {OLD} Saturn's development already. We shall see further on that the gestalt this physical body had on {during OLD} Saturn was all different from today's physical human body. The {contemporary} physical human body on Earth can exist in its manner only in connection with the life-body, astral body, and the 'I' (...). This kind of connection did not exist on {during OLD} Saturn yet. At that stage the physical body had its first development stage without being connected to any human life-body {ether body}, astral body, or 'I'. During {OLD} Saturn's development it matured just so far as to become ready to integrate a life-body of some kind. For that the {solar cosmos during OLD} Saturn had to spiritualize first {pralaya} and then to reincorporate as {solar cosmos during OLD} Sun.*

Could the *physical body* have been sensed with today's senses ? - Indeed, as a *warmth* being, as locally varying and changing *warmth*. «Varying», «locally», and below : «anywhere else» as well as «area» as images.

„Man nehme an, ein Menschenwesen mit den gegenwärtigen Sinnesorganen würde sich diesem Saturnzustande als Beobachter nähern. Nichts von all den Sinneseindrücken, die es haben kann, würde ihm da entgegentreten, außer der Wärmeempfindung. (...) Es würde nur wahrnehmen, wenn es in den von ihm eingenommenen Raumteil gelangt, dass dieser einen anderen Wärmezustand hat als die übrige räumliche Umgebung. Aber es würde diesen Raumteil nicht etwa gleichmäßig warm finden, sondern in der allermannigfaltigsten Weise würden wärmere und kältere Partien abwechseln. Nach gewissen Linien hin würde strahlende Wärme wahrgenommen werden. Und nicht etwa, dass sich solche Linien nur gerade hinzögen, sondern durch die Wärmeunterschiede werden unregelmäßige Formen gebildet. Man hätte etwas vor sich, wie ein in sich gegliedertes, in wechselnden Zuständen erscheinendes Weltenwesen, das nur aus Wärme besteht.

-

*Let us assume a human being with contemporary sensory organs would approach this {OLD} Saturn state as an observer. None of all the sensory impressions he might have would confront him there except for warmth sensation. (...) When entering he would just perceive that there was a different warmth state than anywhere else. But he would not find this area equally warm all over, instead warmer and colder particles would change in the most manifold ways. Warmth would be sensed in lines. These lines would not be straight, but the differences in warmth would build up irregular forms. He would confront something like a structured world-being appearing in various states and consisting of nothing but warmth. -*

Isn't he right, Steiner ? :

*Es muss für den Menschen der Gegenwart*

*People of today must find difficulties*

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*Schwierigkeiten machen, sich etwas vorzustellen, was nur in Wärme besteht, da er gewohnt ist, die Wärme nicht als etwas für sich zu erkennen, sondern sie nur an warmen oder kalten gasförmigen, flüssigen oder festen Körpern wahrzunehmen. Insbesondere dem, welcher die physikalischen Vorstellungen unserer Zeit sich angeeignet hat, wird ein Sprechen von «Wärme» in obiger Art als unsinnig erscheinen. (...)*

*in imagining things consisting of nothing but warmth. They are not used to perceiving warmth as something standing by itself, only at warm or cold objects of gas, liquids, or matter. Especially somebody adapted to contemporary physical concepts will think it is nonsense speaking of «warmth» in the way above. (...)* -

The difficulty will somewhat clarify when accepting *warmth* as one of the four esoteric *elements*, see Tab. D.5.1.

*Für den geisteswissenschaftlichen Forscher stellt sich die Sache anders. Ihm ist die Wärme etwas, wovon er im gleichen Sinne spricht wie von Gas, von Flüssigkeit oder von festem Körper. Sie ist ihm nur eine noch feinere Substanz als Gas. Und dieses letztere ist ihm nichts anderes als verdichtete Wärme in dem Sinne, wie die Flüssigkeit verdichteter Dampf ist oder der feste Körper verdichtete Flüssigkeit. So spricht der Geisteswissenschaftler von Wärmekörpern, wie er von gas- und dampfförmigen Körpern spricht. -*

*The spiritual-scientific researcher sees things differently. To him warmth is something he speaks of in the same way as of gas, liquids, or matter. To him it is just a substance finer still than gas. To him gas is nothing but densified warmth, as liquids are densified steam, and matters are densified liquids. So the spiritual scientist speaks of warmth bodies in the same way as of gas bodies and steam bodies. -*

Once again we can grasp things better when understanding that whatever is *spiritual*, can only be felt by soul experience.

*Es ist nur notwendig zuzugeben, dass es seelisches Wahrnehmen gibt, wenn man auf diesem Gebiete dem Geistesforscher folgen will. - (...). Dieses innere Erlebnis vermag allein eine Vorstellung von dem zu geben, was der Saturn war in der oben geschilderten Periode seiner Entwicklung.“ (R.Steiner 13:156 ff, IV).*

*When following the spiritual researcher in this field we just need to accept that soul perception exists at all. - (...). This inner experience alone {«I am feeling warm», «I am feeling cold»} can give us a notion of what {OLD} Saturn was like during the period of its development described above.*

During *Polaris* - the same as during *OLD SATURN* - man's *physical body* is an *etheric body*, existing *physically* {I} only. *Physical bodies* of our days on the contrary consist of matter - *physical* {IV} - and may be seen by today's senses.

*„Man muss sich nun auch hüten, an die gegenwärtige physische Körperlichkeit des Menschen zu denken, wenn hier von 'physischem Leibe' die Rede ist. Man muss vielmehr sorgfältig unterscheiden zwischen physischem Leib und mineralischem Leib. Ein physischer Leib ist derjenige, welcher von den physischen Gesetzen beherrscht wird, die man gegenwärtig in dem Mineralreiche beobachtet. Der gegenwärtige physische Menschenleib ist nun nicht bloß von solchen physischen Gesetzen beherrscht, sondern er ist außerdem noch durchsetzt von mineralischem Stoffe. Von einem solchen physisch-mineralischen Leib*

*When mentioning 'physical bodies' here we need to take care not to think of contemporary physical bodies. On the contrary we need to differentiate carefully physical bodies and mineral {material} ones. In our days a physical body is subject to the physical laws observed in the mineral {material} sphere. Well, today's physical human bodies are not only subject to such physical laws but are pervaded by mineral {material} substances, too. On {during OLD} Saturn we cannot yet*

*kann auf dem Saturn noch nicht die Rede sein. Da gibt es nur eine physische Körperlichkeit, die von physischen Gesetzen beherrscht wird ; aber diese Gesetze äußern sich nur durch Wärmewirkungen. Also der physische Körper ist ein feiner, dünner, ätherischer Körper. Und aus solchen Wärmekörpern besteht der ganze Saturn. Diese Wärmekörper sind die erste Anlage des gegenwärtigen physisch-mineralischen Menschenleibes. Dieser hat sich aus jenem dadurch gebildet, dass dem ersteren sich die später erst gebildeten gasförmigen, flüssigen und festen Stoffe eingegliedert haben.“*  
(R.Steiner 13:159 , IV).

*speak of that. There is just one kind of physical bodies, and they are subject to physical laws ; but these laws show in warmth effects {physical {I}} only. So the physical body is a fine, thin, etheric body {then}. All Saturn is composed of such warmth bodies. These warmth bodies are the first Anlage of today's physical-mineral {physical-material = physical {IV}} human bodies which evolved from the warmth bodies in that gas-like, liquid, and material substances came up later and integrated into the warmth bodies.*

At the **end of Polaris**, the same as at the end of *OLD SATURN* already, the planet Saturn separates from the rest of the *solar cosmos* : "*Saturn separation*" together with its *sphere*, the three-dimensional area it influences, see Fig. A.3.1 and A.3.2 in vol. I , part 1.

- In physics planetary separations without help from outside are not considered any more.

Yet we need to resolve another problem. Even for contemporary clairvoyant *visualizations* there is not any space dimension during *OLD SATURN*, and none during *Polaris* either. Without space dimensions *OLD SATURN* as well as *Polaris* can exist *spiritually* only. We can just suppose that notions like «extension», "*space compartment*", and "*Saturn separation*" might exist in *spiritual* spheres but remain inconceivable to us. We authors just know the notions of the hereabouts four-dimensional, sensory world of ours.

- Physically spoken the *spiritual* sphere might be in the sphere before the singularity unknown to physics. Very gradually we are getting the idea of Steiner's view of the world when going «back».

### The 2<sup>nd</sup> = *Hyperborean Age* = *Hyperboreis* : Age of Fire & Gas

The *mineral-physical* iteration of the 2<sup>nd</sup> planetary development state : *OLD SUN*

*From time untold until ?720? million years ago [Ma]*

An overview first, an excerpt from Tab. D.5.2. :

		Ma = million years ago
<b>[Super-eon : PRECAMBRIAN] :</b>		
<i>Hyperborean age, 1<sup>st</sup>- 6<sup>th</sup> epoch</i> = the Earth's primordial eon		<i>space originating</i> ?4,570? – 538.8 Ma
<i>Hyperborean age, 7<sup>th</sup> epoch</i>		?4,570 - 720? Ma
<b>HADEAN</b> «similar to Hades»		?4,570 – 4,000? Ma
<b>ARCHEAN</b> «primordial eon»		?4,000 – 2,500? Ma
<b>PROTEROZOIC</b> «early life»		?2,500? - 538.8 Ma
	Paleo-Proterozoic	?2,500 - 1,600? Ma
	Meso-Proterozoic	?1,600 - 1,000? Ma
	Neo-Proterozoic	?1,000? - 538.8 Ma
	Tonian	?1,000 – 720? Ma

Tab. D.5.4. *The Hyperborean Age.*

Naming : **Hyperborean** : a member of a people held by the ancient Greeks to live beyond the north wind in a region of perpetual sunshine [Meriam-Webster 9/24]. - A mythical people who lived in the far northern part of the

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known world. Their name appears to derive from the Greek ὑπέρ Βορέα, "beyond Boreas" (the god of the north wind) or "far north". Some scholars prefer a derivation from ὑπερφέρω (*hyperpherō*, "to carry over"). [en.wikipedia.org 9/24]. - **Hyperborea** (in ancient Greek Ὑπερβορέα) is a fabulous paradisiac country localized far up north by ancient Greek geographers or mythographers. Its inhabitants, the **Hyperboreans** (Ὑπερβόρειοι *Hyperbore(i)oi*), were ascribed a close relation to the god Apollon and his worship. - Ancient etymology of the name "further north than north" (Boreas being the god of the northern wind) is supposed to be unsure. A derivation from northern Greek \*βόρις *\*boris* mountain may be thought of, indicating a home "the other side of the mountains". - In the 19th and 20th centuries occultists and right-wing esoterics usurped this myth. [Wikipedia.de 9/24].

**Scientific aspects** to start with. - In physics *Hyperboreis* cannot be classified in the solar system either. A universe consisting mainly of gas is postulated shortly after the singularity already : in the plasma stage, see vol. I , part 1 , chapter C.1 «Singularity, Big Bang, Plasma, and Radiation Energy», a long time before there were the earliest galaxies, let alone the solar system.

We should not wonder that *births* and *separation of world bodies* do not play a role physically. Here they are anthroposophic concepts. Paleogeology and paleobiology rely on findings assuming that most of them are found in surroundings closely connected chronologically.

The super-eon PRECAMBRIAN : the eon «earlier than the Cambrian» [?4,570? – 538.8 million years ago, duration < ?4? billion years]. (*Delor 7:170 and 373 calling it 'the Earth's primordial eon'* : an anthroposophic notation with a meaning differing from the scientific one ; science giving the same name to the ARCHEAN, see below.) The name Precambrian is not used any more.

The Precambrian consisted of three eras which are called eons now : the earliest three eons out of four :

The HADEAN, eon «similar to Hades» [?4.57 – 4.0? billion years ago] : Originally the Hadean was defined as the eon older than any rocks. In the meantime, however, Earth rocks as well as Moon rocks were dated > ?4.0? billion years ago. The characteristic defined is not valid any more. - Perhaps that is why both Bosse and Delor did not state the Hadean. They include it into the ARCHEAN. Then the ARCHEAN would extend to ~ > ?2? billion years.

- ~ ?4.57? billion years ago the solar system arose, and the Earth with it. [The most ancient Moon rocks have been dated to 4.527 billion years ago plus minus 10 million years ago, just 43 million years later on.] The ground was red-hot and liquid, and the Earth's atmosphere fiery-blazing.
- ~ ?4.4? billion years ago water must have come up because life, i.e. LUCA here, see below, needs water. But it could not, however, have been on the ground, i.e. liquid. It must have been floating in the atmosphere as steam. So *life* must have initiated in the Earth's atmo-*sphere*. It is an anthroposophic thought hoping for consideration in paleogeography for > 100 years.
- ~ > ?4.35? billion years ago the chemical evolution or abiogenesis begins. [Abiogenesis : the origin of life from non-living matter, specifically : a theory in the evolution of early life on earth : organic molecules and subsequent simple life forms originated first from inorganic substances. Meriam-Webster 5/24]. The mechanism, however, of life originating from non-organic and organic substances has not yet been understood completely. Its time span is figured out from the genetic mutation rate of cell membranes. So a primordial ancestor is figured : LUCA : the Last Universal Common Ancestor.

The ARCHEAN «primordial eon» [?4.0 – 2.5? billion years ago, duration ~ ?1.5? billion years] :

- ~ ?4.0? billion years ago earliest fossils, earliest single celled life.
- The temperature of the upper *life sphere* sinks down to 150 C, endurable for Archaeans (*Bosse 2012 pg 42*).
- Primordial CO<sub>2</sub> is split into C + O<sub>2</sub> by Archaeans, → assimilation of individual plants becomes possible, and individual animals breathing.
- Primordial hydrogen plus Oxygen combine to H<sub>2</sub>O : the *element watery / liquid* (with its *chemical* and *rhythmic etheric* forces, and those of *sounds* and *numbers*) as a mixture of *air-gas* and *liquids* - so far, however, just in the lower, cooler *life sphere*.
- The *Moon separation* begins (*Bosse 2012, pg 104*).
- Protozoa traces in hot springs on the ocean floor [~ ?3.77? billion years ago] and with petrification in Australia [~ ?3.48? billion years ago].
- ~ ?3.5? billion years ago chemo-fossils of cyanobacteria and earliest O<sub>2</sub> , but as yet bound chemically to minerals of steam [«primordial ocean»] : No O<sub>2</sub> in the atmosphere because the photosynthesis of the earliest procaryotes oxidizes just the minerals of the primordial ocean.

## D.5. During EARTH : Details

- ~ 3.5? billion years ago earliest photosynthesis.
- ~ 2.6? billion years ago earliest oxygen in the atmosphere. Ozone [O<sub>3</sub>] originating, → filtering UV-light → enabling animal life.

PROTEROZOIC = eon of «ancient life» [2,500? – 538.8 million years ago, duration < 2? billion years] :

Paleo-Proterozoic [2,500 - 1,600? million years ago] :

- ~ 2,500 - 2,200? million years ago Huronian glaciation of {all ?} the Earth ; by releasing methane [Rötzer 22.10.18].
- ~ 2,100? million years ago earliest eukaryotes = cells with a nucleus → fungi, plants, animals.
- ~ 2,000? million years ago earliest sexual reproduction.
- ~ 1,700? million years ago earliest multicellular life.

Meso-Proterozoic [1,600 - 1,000? million years ago] :

- ~ 1,500? million years ago earliest fungi.

Neo-Proterozoic [1,000? - 538.8 million years ago] :

Tonian [1,000 - 720 million years ago] :

- ~ ? 800? million years ago earliest plants.
- ~ ? 750? million years ago earliest animals.

This is when the *Lemurian age* begins. Still the Cryogenian and the Ediacaran form the last two [of three] subsections of the Neo-Proterozoic.

Cryogenian [720 - 635? million years ago] :

- 717 - 660? million years ago Sturtian glaciation of (all ?) the Earth.
- 655? million years ago the world of anaerobes gradually drifting over to the world of algae → earliest mass extinction : of anaerobes.
- 650 - 632? million years ago Marinoan glaciation of (all ?) the Earth.

Ediacaran [635? - 538,8 million years ago] :

- 630? - 538,8 million years ago Ediacaran biodiversity.
- 547? - 538,8 million years ago Baykonurian glaciation of (all ?) the Earth.

### Anthroposophic aspects :

First Hyperboreis **all in all** : It began an untold time before the first eon, the HADEAN [4,570 - 4,000? million years ago]. It ended when the Lemurian age began : 720? million years ago.

*"Hyperboreis is the iteration (the second one already) of "Old Sun" <sup>1</sup>. According to Rudolf Steiner space is born on <sup>2</sup> Old Sun. So we may presume space appears during the epoch of the Earth as a planet <sup>3</sup> as late as Hyperboreis."* (Delor 8:146).

<sup>1</sup> {The first time OLD SUN was iterated during OLD MOON.} , <sup>2</sup> {during} , <sup>3</sup> {EARTH as a planetary development state}

According to Steiner there were totally different physical conditions inside the joint world body - a long way from today's capacity to imagine things. The primordial plants described below, and the earliest primordial animals still further down, as far as they existed during *Hyperboreis*, were inside the joint world body consisting of the Sun (including Venus and Mercury) and the Earth (including the Moon).

*"During the Hyperborean age the world body of the Earth and the Moon were still contained inside the Sun sphere, until they separated later <sup>1</sup>."* (Bosse 2015 S. 65).

<sup>1</sup> (toward the end of *Hyperboreis*) [> 720? million years ago]

Still all the development during *Hyperboreis* occurred in just the two *elements* available : *warmth/fire*, and *air-gas*, see Tab. B.2.1.

### The 1<sup>st</sup> - 6<sup>th</sup> Hyperborean Epochs

*„Dann kommt die Zeit, in der die Sonne sich anschickt, aus der Erde herauszugehen, wo diejenigen Wesenheiten, die sozusagen nicht mit den gröbereren oder gröber werdenden Substanzen der Erde weitergehen können, sich mit den feineren Substanzen der*

*Then {after the Polaric age} the time comes when the Sun gets ready to leave the Earth. The beings that cannot continue with the Earth's ever coarser substances,*

*Sonne von der Erde trennen. Diese Zeit nennen wir die Hyperboräische Zeit.*“ (R.Steiner 112:87 , V : 6/28/1909).

*separate from the Earth. This is the time we call the Hyperborean time {age}.*

### Space originating

Seen *spiritually* space originated because *spiritual beings* interacted. In Tab. B.4.3. we had learned about the *thrones* {1.3} cooperating with the *archai* {3.1} during *Polaris*. Now, during *Hyperboreis*, we shall consider how in the *spiritual* world *spiritual beings* of the 2<sup>nd</sup> *spiritual hierarchy*, the *gods*, : namely the 1<sup>st</sup> grade, *dominions* = *kyriotetes* = *dominationes* = *spirits of wisdom* {2.1}, cooperate with the 2<sup>nd</sup> grade of the 3<sup>rd</sup> *spiritual hierarchy*, the angels in the broad sense, : *archangels* = *archangeloi* = *fire spirits* {3.2}, see Tab. B.4.3.

With the following quotation we may remember that *Hyperboreis* is an abbreviated iteration of *OLD SUN*.

*Spiritual beings* originate space ...

„So bekommen wir ein Bild der Alten Sonne : Wir denken uns gleichsam einen Zentralsitz, wo vereinigt ist das, was vom Alten Saturn herübergekommen ist : die Opfertaten der Throne gegenüber den Cherubim, im Anblick dieser Opfertaten versunken die Geister der Weisheit. Durch den Anblick dieser Opfertaten werden sie veranlasst, von sich auszustrahlen, was ihr eigenes Wesen ist, strömende, flutende Weisheit als schenkende Tugend. Das aber wird, weil es zeitdurchstrahlt ist, ausgesandt und wieder zurückgesandt, so dass wir einen Globus, einen durch die zurückstrahlende Tugend innerlich erleuchteten Globus haben. Denn wir müssen uns die Alte Sonne nicht nach außen, sondern nach innen leuchtend denken. Damit ist ein Neues geschaffen, das wir folgendermaßen beschreiben können. Denken wir uns diese Geister der Weisheit, sitzend im Mittelpunkt der Sonne, im Anblick der opfernden Throne versunken und ausstrahlend, was ihr eigenes Wesen ist, wegen des Anblicks der opfernden Throne, und zurück erhalten sie ihr ausstrahlendes Wesen, indem es ihnen von der Oberfläche zurückstrahlt, so dass sie es als Licht wieder zurückbekommen. Alles ist durchleuchtet.

*That is how we can get an idea of OLD SUN : Let us think of a central point as it were where everything is agglomerated that came over from OLD SATURN : The thrones {1.3} sacrificing to the cherubim {1.2}, {and} the spirits of wisdom {2.1} contemplating these sacrificial deeds. Doing so they {the spirits of wisdom} are induced to radiate from them what is their proper being : streaming, flowing wisdom as virtue donated. Since this is perfused by time it is sent out and sent back again so that we have a globe, a globe shining within, with virtue all radiating back {from the globe's surface}. Because we should not imagine the Old Sun {i.e. the joint world body of the Sun (including Venus and Mercury) and the Earth (including the Moon) during OLD SUN} shining to the outside, but within the inside instead. So something new is being created. We may describe it in the following way. Let us think of those spirits of wisdom {2.1} sitting in the center of the Sun {the joint world body}, contemplating the thrones {1.3} sacrificing, and radiating {to the inner surface of the outer limit of the joint world body} what is their own being because they are contemplating the thrones. They receive back their own being which is radiated back to them from {the inside of} the surface {of the joint world body} so that they receive it {their own being} back as light. Everything is pervaded by light.*

... by radiating to the inside to the surface of the joint world body of the Sun (including Venus and Mercury) and the Earth (including the Moon), and reflecting as light back from there ...

*Aber was bekommen sie zurück von denen, die da im Nehmen zurückstrahlen ? - Ihr eigenes Wesen wurde, indem sie es hingegeben haben, zum Geschenk an den Makrokosmos, da war es ihr Inneres. Jetzt strahlt es zurück, ihr eigenes Wesen*

*But what do they {those spirits of wisdom {2.1}} get back from those {beings} that radiate back while receiving ? - Their own essence became a donation to the macrocosm as it {the spirits-of-wisdom's own essence} was innermost to them. Now it is radiated back : Their own*

*tritt ihnen von außen entgegen. Sie sehen ihr eigenes Inneres in der ganzen Welt verteilt und widergestrahlt von außen als Licht, als die Widerspiegelung ihres eigenen Wesens. -*

*essence turns back to them from outside {of them}. They see their own essence {first} dispersed all over the world and {then} radiated back as light from outside {of themselves}, as a reflection of their own essence.*

... because these opposites alternate in time as time had evolved during *Polaris* already.

*Inneres und Äußeres sind zwei Gegensätze, die uns jetzt entgegentreten. Das Frühere und das Spätere verwandelt sich und wird so, dass es sich verwandelt in Inneres und Äußeres. Der «Raum» ist geboren ! Durch die schenkende Tugend der Geister der Weisheit entsteht der Raum auf der Alten Sonne. Vorher kann «Raum» nur eine bildliche Bedeutung haben. Jetzt haben wir den Raum, aber zunächst nur in zwei Dimensionen : noch nicht oben und unten, noch nicht rechts und links, sondern nur Äußeres und Inneres. - In Wirklichkeit treten diese beiden Gegensätze schon gegen Ende des Alten Saturn auf, aber sie wiederholen sich in ihrer eigentlichen Bedeutung, als Raum schaffend, auf der Alten Sonne.“*  
(R.Steiner 132:42 f , II : 11/7/1911) {Quotation partially repeated in vol. I , part 1 , chapter B.4 , subsection «Sacrifice and Dedication, Gift, Abandonment, and Mastering Renunciation». Rather spiritual aspects there.}

*Now we are meeting two opposites : the inside and the outside. What is earlier and what is later, metamorphizes into the inside and the outside. 'Space' is born ! Space originates on the {during} OLD SUN by the spirits of wisdom donating virtue. Before that {i.e. during OLD SATURN} 'space' can just mean something imaginative. Now {during OLD SUN} we have space, but just in two dimensions so far : not above or below yet, not right or left yet, just outside or inside. - Really these two opposites came up during the ending phase of OLD SATURN already, but they are iterated in their proper meaning, as creating space, during OLD SUN.*

The concept of inside and outside as space dimensions is new to us authors.

Now let us turn to the sequence of events : How space - and matter from *Atlantis* on - evolve : Space is *shattered form*, and *shattered matter* from *Atlantis* on.

*„Wenn gewisse Formen, die unter dem Einfluss der Geister der Form geschaffen sind, sich zu einem gewissen Zustand entwickelt haben, dann zerbrechen die Formen. Und wenn Sie nun ins Auge fassen zerbrochene Formen, etwas, was also dadurch entsteht, dass Formen, die noch übersinnlich sind, zerbrechen, dann haben Sie den Übergang von dem Übersinnlichen in das Sinnliche des Raumes. Und das, was zerbrochene Form ist, das ist Materie. Materie, wo sie im Weltenall auftritt, ist für den Okkultisten nichts anderes als zerbrochene, zerschellte, zerborstene Form. Wenn Sie sich vorstellen könnten, diese Kreide als solche wäre unsichtbar, und sie hätte diese eigentümliche parallel-epipedische Form, und als solche wäre sie unsichtbar, und jetzt nehmen Sie einen Hammer und schlagen rasch das Stück Kreide an, dass es zerstiebt, dass es in lauter kleine Stücke zerbricht, dann haben Sie ein Bild für die Entstehung der Materie. Materie ist ein solcher Geist, der sich entwickelt hat bis zur Form und dann zerborsten,*

*When certain forms that were created under the influence of the spirits of form {elohim, {2.3}}, develop up to a certain state, then the forms crack up. Now when considering broken forms, {i.e.} something occurring when forms are breaking that are still supersensible, then you have the transition from the supersensible to what is sensory as space. Then the broken form is matter. Matter occurring in the universe is nothing but broken, shattered, burst form to the occultist {!}. If you could imagine this piece of chalk-as-such were invisible and had this peculiar parallelly epipedic {brick} form, and you would take a hammer and bang the piece of chalk so that it is scattered, so that it bursts into many little pieces : then you have an image of matter originating. Matter is a spirit that developed up to form and then*

*zerbrochen, in sich zusammengefallen ist.  
Materie ist ein Trümmerhaufen des Geistes. “  
(R.Steiner 134:72 f, IV : 12/30/1911).*

*burst, broke up, collapsed. Matter is a  
heap of rubble to the spirit.*

This truly is an imposition to us who grew up tied to matter.

*„Der Mensch, der vom Standpunkte der Geistes-  
wissenschaft aus den Raum studiert, der weiß,  
dass dieser Raum nicht eine abstrakte Leere ist  
(...). Er ist etwas, was in sich selbst von Linien er-  
füllt ist, von Kraftlinien hierhin, dorthin, von oben  
nach unten, von rechts nach links, gerade, runde  
Linien in alle Richtungen.“ (R.Steiner 105:17).*

*A person studying space from the  
view point of spiritual science,  
knows that space is not an abstract  
void (...). It is something filled with  
lines, powerful lines going here and  
there, down from above, straight,  
curved lines into any direction.*

Regarding the discussion about gravitational waves we may well surmise Steiner's foresight.

### Planetary Separations

Before, during *Polaris*, Saturn had separated from the rest of the *solar cosmos* {"*Saturn separation*"} together with its *sphere*, i.e. the three-dimensional area it influenced. Now during *Hyperboreis* the planet Jupiter separates in probably a similar way : "*Jupiter separation*" together with its *sphere*. This occurs during the 1<sup>st</sup> *Hyperborean epoch* (*Delor 8:134*). What follows are asteroids separating from the 2<sup>nd</sup> *Hyperborean epoch* ongoing (*Delor 8:131*) and during the 4<sup>th</sup> *Hyperborean epoch* Mars separates, "*Mars separation*" (*Delor 8:130*), probably together with its *sphere* as well. Each time, step by step, the rest of the *solar cosmos* dwindles, and so does its corresponding *sphere*. Finally the *solar cosmos* separates the Sun, too, dwindling correspondingly : "*Sun separation*", together with its *sphere* as well. This occurs up to the end of the Tonian [?1,000 - 720? million years ago], see Fig. B.3.1.

There are two questions we authors cannot resolve : We had already mentioned the *Jupiter* and *Mars separations* during *OLD SUN* : in Tab. D.3.1 as well as in vol. I , part 1 in connection to *refinement* shortly after Tab. B.2.1 . Why did both these separations not lead to *pralayas* as the *Saturn*, *Sun*, and *Moon separations* did ? Perhaps because Steiner's *clairvoyant* visualizations didn't say so ? Or because counting sevens would not have fitted then ? Seven is the number of developments, see in vol. I , part 4 , chapter I.2 «The 7 Planetary Development States of the Solar Cosmos», and in vol. I , part 5 , chapter J.3 the number 7 . - Both presumed reasons do not really convince us authors.

The second question concerns the asteroids. Steiner does not mention the asteroids in connection with separations although the biggest one of them, Ceres, was discovered as early as 1801, but was thought to be a single small planet at the time. From 1890 on new photographic methods helped to discover ever more asteroids so that during the decades of Steiner's lectures the notion was known. Why then did they not play a role for Steiner ? Because the ancient Greeks did not mention them ? Of course they could not see the asteroids without telescopes, and could not imagine deities behind them as they did for the large planets. - We authors did not yet find answers to both questions, and would be grateful for help.

### Air-Gas and Light Originating

Originally the *element air-gas* contained 95 % CO<sub>2</sub> due to evaporations of volcanic gases from basalt on Earth. This was confirmed in the atmospheres of Mars and Venus (*Bosse 2012, S. 53*). There arises *light ether* together with the *element air-gas*. *Light ether*, alike to any *ether*, is an invisible state between *elements*, and the *astral* i.e. the purely *spiritual*.

Thinking the quotation below would speak of the "*primordial state*" of *OLD SATURN* would be an error : The following stage evolves "*by and by*". If Steiner had been speaking of *planetary development states*, there would have been a *pralaya* in between. However as there is a continuation between "*the primordial state*" and the next development state described here. So what is meant this time are the *ages* during *EARTH*. - What is important, too : "*space*" means here the rest - after the *Saturn separation* - of the *solar cosmos* i.e. the joint world body consisting of the Sun (including Venus and Mercury) and the Earth (including the Moon).

*Light* begins radiating in the *solar cosmos* ...

*„Damals, im Urzustand, war die Erde nur ein  
Dunstnebel, der nur als Wärme empfunden wor-*

*At that time, during the primordial  
state {Polaric age}, the Earth was just a*

den wäre. Aus dieser Masse, aus diesem Uräthernebel, gliederte sich allmählich ein leuchtender Dunstball, der schon hätte gesehen werden können, wenn es damals ein Auge gegeben hätte. Und wenn man mit einem Gefühlssinn sozusagen hätte hinein dringen können, wäre er erschienen wie ein erwärmter Raum, wie das Innere eines Backofens würde er sich ausgenommen haben. Sehr bald aber wurde diese Nebelmasse leuchtend. (...) Wir müssen uns klar sein, dass in diesem Dunstnebel nicht etwas vorlag wie ein heutiger Nebel oder wie heutige Wolkengebilde, sondern alle heute fest gewordenen und flüssigen Substanzen waren darinnen aufgelöst. Alle Metalle, alle Mineralien, alles, alles war in Dunst- und Nebelform, in einer sehr durchsichtigen Form, in einer durchleuchteten Dunstform darin vorhanden. Durchleuchteter Dunst war da, von Wärme und Licht durchdrungen. Denken Sie sich da hinein. Das, was aus dem ätherischen Nebel geworden war, das war ein durchleuchtetes Gas. Und dieses hellte sich immer mehr und mehr auf, und gerade durch die Verdichtung der Gase wurde das Licht immer stärker, so dass in der Tat einmal dieser Dunstnebel wie eine große Sonne erschien, die in den Weltenraum hinausleuchtete.“ (R.Steiner 106:66 , V : 9/7/1908).

*hazy fog that would have been felt as mere warmth. By and by {at the beginning of the Hyperborean age} a shining fog ball arose out of this mass, out of this primordial ether fog. It might have been seen if an eye had already existed then. If some sensory feeling could have felt its way inside, it would have seemed some space warmed up. It would have been felt like the inside of an oven. Rather soon, however, this fog mass shone out. (...) We should clarify that this hazy fog was not like today's fog or today's clouds. All the substances that are liquid or concrete today, were dissolved in this {hazy fog}. Everything metallic, everything mineral, everything, everything was haze and fog, in a very transparent form, in a fog form perfused by light, fog perfused by warmth and light. Try imagining that. Etheric fog, became gas perfused by light. This gas lightened up more and more. As the gas densified, the light increased so that by and by there appeared something like a huge sun shining out into space.*

... bringing about something spiritual : **love**.

„Ein von einer ganzen Hierarchie niederer und höchster, erhabenster Wesenheiten bevölkerter Weltenkörper war die Erde. Und das, was als Licht hinausstrahlte in den Raum, das Licht, womit der Erdenkörper durchdrungen wurde, das war nicht nur Licht, sondern auch das, was später die Erdenmission war, das war die Kraft der Liebe. Das hatte das Licht als seinen wichtigsten Bestandteil in sich. Wir müssen uns also vorstellen, dass nicht nur Licht ausgestrahlt wird, nicht nur physisches Licht, sondern dass dieses Licht durchseelt, durchgeistigt ist mit der Kraft der Liebe.“ (R.Steiner 106:67 , V : 9/7/1908).

*The Earth was a world body inhabited by all of a hierarchy of inferior and highest most sublime beings. What radiated out into space as light, the light that pervaded the Earth {+Moon+ Sun +Venus + Mercury}, was not light only but was as well what came to be the Earth's mission later on : It was the power of love. That was what the light contained as its most important constituent. So we need to imagine that not only light is emitted, not just physical light, but this light is pervaded spiritually by the power of love.*

The **element air-gas** originated from parts of the *element warmth*. "Warmth-matter" however is not matter in the sense of *physical* {IV} but the *elementary state physical* {I} existing during OLD SATURN and Polaris.

„In dieser ersten Zeit der Erdwärme war die Erde noch vereint mit Sonne, Mond und noch anderen Planeten. Später tritt eine Verdichtung ein. Aus dem wärmemateriellen Zustand wurde ein Gaszustand. Diese Entwicklungsstufe

*During this first time of the Earth's warmth {Polaris} the Earth was still in one with the Sun, the Moon, and still other planets {Saturn, Jupiter, asteroids, Mars, Venus, and Mercury}. Later {at the transition from Polaris to Hyperboreis} there is a densification. From the warmth-material state*

*hat eine große Bedeutung für den Menschen. Denn die Entwicklung aus Wärme in Luft war so, dass sich Luftlinien rings um die Kraftlinien der Wärmematerie ansetzten. Der Kreislauf im Atmungsprozess fand damals seine erste Anlage in der Erdenentwicklung. -*

*{of Polaris, physical {I}} there developed {in part} a gas state. This development stage is highly important to man {emerging}. Because warmth developed to air in a way that lines of air took hold all around the power lines of warmth-matter. It was then that the cycle of the breathing process found its first anlage in the Earth's development. -*

With *man emerging* the light formed primordial stages of what was to become the human nervous system. - The same as with "warmth-matter", "air-matter" and "light-matter" are not *material* in the sense of *physical* {IV} either, but the *elementary state physical* {II} and the *ether form spiritual* {II} respectively - see Tab. D.5.1. - occurring during *OLD SUN* and *Hyperboreis*.

*Nun kommt eine sehr wichtige Tatsache. Immer, wenn sich Wärmematerie in Luftmaterie verdichtet, verdünnt sie sich andererseits zu einem noch feineren Zustand, zu Lichtmaterie. So war es, als sich der Saturn zur Sonne bildete ; der Gaszustand war durchdrungen von Licht, leuchtend in den Weltenraum. So war es auch jetzt, als die Erde sich selbst verdichtete zum Luftzustand ; sie war ganz durchdrungen von Licht, sie leuchtete in den Weltenraum hinaus. Die Erde ist sozusagen eine Sonne geworden. Das Licht (...) dringt ein in dunkle Wärmematerie. Die ersten Menschenanlagen waren nicht leuchtend ; man hätte sie höchstens fühlen können durch Wärmedifferenzen. Nun umglimmt und umstrahlt Licht dieses ganze System (...). Dieses Licht setzt sich an im Menschenleib, das ist das Nervensystem. Die Kraftlinien, die Strukturlinien des Nervensystems sind formgewordenes Licht. (...) Das Nervensystem, das Licht wahrnimmt, war einst selbst Licht.“ (R.Steiner 98:214 , 3/17/1908).*

*Now there is a very important fact. Whenever warmth-matter densifies to air-matter {air-gas, see Tab. D.5.1.}, it is refined on the other hand to a still finer state, to light-matter {light-ether from fire-ether, see Tab. D.5.1.}. That is how {OLD} Saturn became {OLD} Sun : The gas state was pervaded by light, shining into space. That is what it was like now {at the beginning of Hyperboreis}, too, when the Earth {within the joint world body of Sun (including Venus and Mercury) + Earth (including Moon)} densified as far as the air state ; the Earth was totally pervaded by light, shining into space. The Earth {the joint world body} became a {shining} sun to say so. The light (...) pervades the dark warmth-matter. Man's first Anlagen {during Polaris} did not shine ; at most they might have been felt in warmth differences. Now {during Hyperboreis} light glows and radiates throughout this whole system (...). This is the light that invades the human body, it {became, and today it} is the nervous system. The power lines, the structure lines of the nervous system are light evolving to forms. (...) The nervous system perceiving light, was light by itself in the early days {during Hyperboreis}.*

"Space" still means the rest - after the *Saturn separation* - of the *solar cosmos* i.e. the *joint world body* consisting of the Sun (including Venus and Mercury) and the Earth (including the Moon). Although they mixed totally as yet, we may imagine them as separating soon.

### **Man's Earliest Anlage : The Astral Human**

Above, at the beginning of the subsection «The *Polaric age*», we quoted the development of *living beings* during *Polaris* from Steiner's "*Akashic Record*" (R.Steiner 11:112 f , VIII). - During *Hyperboreis* there arises a hierarchy of *astral man* and *ether man*. Once again a table {Tab. D.5.5.d}, with divisions [Tab. D.5.5.a – c} this time, is meant to help presenting the quotations that will follow then. First, however, Tab. D.5.3. is repeated to compare :

During *Polaris* : What did originate how ?

Let us distinguish : The Earth's surroundings, and the Earth itself. The Earth's surroundings are totally *spiritual*,

*astral.*

D.5. During EARTH : Details

The <i>Earth's astral environment</i> consisted of the <i>Earth's astral mantle</i> .	The <b>Earth</b> consisted of the <i>etheric body</i> and the <i>physical body</i> .	
The <i>Earth's astral mantle</i> was totally filled by its living aspect : <i>astral beings</i> = <i>astral human beings</i> = <i>astral humans</i> = <i>astral human souls</i> = <i>anlagen of later human souls</i> = <i>anlagen of man's astral body</i> .	The <i>Earth's etheric body</i> = <i>ether Earth</i> , consisted of nothing but <i>warmth ether</i> , see Tab. D.5.1. Its other names are : <i>extremely fine substantiality</i> = <i>finest ether</i> = <i>astral germ of the Earth</i> .	The <i>Earth's physical body</i> consisted of just one element : <i>warmth</i> , see Tab. D.5.1.
	The <i>warmth ether</i> was totally filled by its living aspect : <i>etheric humans</i> .	
The <i>astral human souls</i> impregnated the <i>Earth's etheric body</i> ...	... so that <i>etheric humans</i> very gradually evolved to images of <i>astral humans</i> .	
With the help of - vivifying - <i>cosmic ether</i> = ether coming from the cosmos, ...	... there originated <i>vivified ether</i> = <i>life ether</i> = <i>fine living ether</i> : the first <i>anlage of a human etheric body</i> .	

Tab. D.5.3. [repeated] What did originate how during *Polaris* ?

**During Hyperboreis** : What did originate how ?

The same as with *Polaris* we are going to distinguish : the *Earth's environment*, and the *Earth herself*. The *Earth's environment* was purely *spiritual, astral*.

In the <i>Earth's astral mantle</i> ...	By and by the <b>Earth</b> developed : the <i>ether body</i> into 2 <i>ethers</i> , and the <i>physical body</i> into 2 <i>elements</i> .				
...the <i>astral beings</i> = <i>astral human beings</i> = <i>astral humans</i> = <i>astral human souls</i> split into ...	The <i>ether body</i> consisted - by and by - of 2 <i>ethers</i> :		The <i>physical body</i> consisted - by and by - of 2 <i>elements</i> :		
... a 1 <sup>st</sup> group : the same as during <i>Polaris</i> .	& a 2 <sup>nd</sup> group: continuing de-velopement.	<i>Warmth ether</i> : the same as during <i>Polaris</i> , and ...	... partly evolving to <i>light-ether</i> , see Tab. D.5.1.	<i>Warmth</i> : mostly the same as during <i>Polaris</i> , and ...	... partly evolving to <i>air-gas</i> , see Tab. D.5.1.

Tab. D.5.5.a. The *Earth's astral environing mantle*, and the *Earth differentiating*.

In words : The **Earth's astral environment** consisted totally of *astral beings* = *astral human beings* = *astral humans* = *astral human souls*, the same as during *Polaris*. They differentiated into 2 groups. The 1<sup>st</sup> group did not develop further than it had during *Polaris* and so remained underdeveloped in its faculties. The 2<sup>nd</sup> group developed further on but succeeded in their development at the 1<sup>st</sup> group's expense because it relieved the 2<sup>nd</sup> group from some tasks {see below}.

The **Earth** consisted of an *ether body* and a *physical body*, the same as during *Polaris*. Differing from *Polaris* each one of the two split into something new :

A part of the *Earth's ether body* = *warmth ether* - which had existed during *Polaris* already - developed to *light-ether*, see Tab. D.5.1. - In the *Earth's physical* {1} *body* a part of the *element warmth* - which had existed during *Polaris* already, too, - developed the *element air-gas*, see Tab. D.5.1., too.

The following part of Tab. D.5.5. is restricted to *warmth ether*. During *Polaris* already it had evolved to *vivified ether* = *life ether* with the help of the *cosmic ether*.

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<b>The warmth ether = vivified ether = life-ether = fine living ether ...</b>		
... mainly remained as it was during <i>Polaris</i> already.	... partly split into finer substantiality and denser substantiality.	
	The finer substantiality resembled an anlage of today's chemical elements.	The denser substantiality resembled today's air.
<b>Chemical ether</b> develops from : <b>life ether</b> (the same as during <i>Polaris</i> ) and what is new : from an anlage of today's chemical elements.		The denser substantiality resisted the <b>1st group of astral humans of <i>Polaris</i></b> .

Tab. D.5.5.b. The warmth ether partly splitting up.

In words : A part of the **warmth ether = life ether** developed a *finer substantiality* and a *denser substantiality*. The **finer substantiality** resembled a primordial state of today's chemical elements. The **denser substantiality** resembled today's air. We remember : *Ether* is a fine substance to R. Steiner although it does not exist in physics.

The **finer substantiality** and the unchanged parts of the **life ether** formed the **chemical ether**.

The **denser substantiality** dealt with the **human astral beings**. It resisted the **human astral beings** trying to create an image of themselves in the *denser substantiality*. That is why one of the two groups of **human astral beings**, called the **1st group**, needed to renounce to their own development, struggling with the *denser substantiality* in the development stage they had attained during *Polaris* already.

The following part of Tab. D.5.5. is restricted to the **2nd group** of **human astral beings** and the **chemical ether** :

The <b>2nd group</b> : the <b>astral beings = astral human beings = astral humans = astral human souls</b> continuing their development ...	... created in the <b>chemical ether</b> ...	
... an image of themselves : the <b>earliest human anlage : astral-like humans</b> , consisting of :		
... of the primordial anlage of the <b>human astral body</b> . It originated in the Earth's astral environment ; ...	... of primordial <b>reproduction</b> : by <i>life forces</i> it had received from the <i>life ether</i> ; and ...	... of primordial <b>nutrition</b> : by differentiating the environment chemically.

Tab. D.5.5.c. The human astral body was created as the primordial human anlage.

In words : The **2nd group**, the **human astral beings continuing their development**, created **astral-like humans** as a primordial human anlage out of the Earth's *astral* environment. The **astral-like humans** partly consisted of the **human astral body**, which is purely *spiritual*. What is the difference between **astral beings, astral human beings, astral human souls, and astral humans** ? - There is not any. They are synonyms, the precursor states during *Polaris* and *Hyperboreis* to the **astral-like human**. These precursor forms take several names with Steiner, whereas the **astral-like human** doesn't. We should not let us be beguiled by the ever so slight difference between **astral humans** and **astral-like humans**.

The **astral-like human** was nearer humans of today. It was the earliest human form that did not consist of astrality only but contained etheric parts, too, - see below -, however it did not contain *physical* parts yet. *Physical* parts were added to **astral-like humans** as late as Lemuris. It is true Steiner writes of a "**physical human image**" at the end of the quotation, but it is a mere image containing just *astral-like* and *etheric* parts, not *physical* ones. In this quotation **physical human image** means the same as **astral-like human**.

Out of the **chemical ether** the **2nd group** of the **human astral beings** created the **astral-like humans'** etheric parts : primordial **reproduction** and primordial **nutrition**. Namely primordial **reproduction** out of the *life-ether's life forces*, and primordial **nutrition** out of the capacity to differentiate substances of the environment : attracting or repulsing them.

These three partial tables Tab. D.5.5. a to c do not contain the **1st group**, the **human astral beings of *Polaris***. They finally did succeed creating an image of themselves in the **denser substantiality** : Animal-like beings arose : the **primordial animal kingdom** on Earth, the uncolored box in Tab. D.5.5. d.

The Tab. D.5.5.a to c can be joined :

D.5. During EARTH : Details

In the <i>Earth's astral mantle</i> the <i>human astral beings</i> split into ...	By and by the <b>Earth</b> split into : the <i>ether body</i> into 2 <i>ethers</i> , and the <i>physical body</i> into 2 <i>elements</i> .			The <i>physical body</i> consisted - by and by - of 2 <i>elements</i> : <b>warmth</b> partly developing to : <b>air / gas</b> , see Tab. D.5.1.
... the 1 <sup>st</sup> group : the same <i>human astral beings</i> as during <i>Polaris</i> .	... mainly remaining the same as during <i>Polaris</i> .	The Earth's <i>ether body</i> consisted - by and by - of 2 <i>ethers</i> : <b>warmth ether= vivified ether = life-ether = fine living ether ...</b>		
& the 2 <sup>nd</sup> group : <i>human astral beings</i> developing.	... and partly splitting into : <i>finer substantiality</i> and <i>denser substantiality</i> .		... partly	
The 2 <sup>nd</sup> group of <i>human astral beings</i> created an image of themselves : a primordial anlage of humans : <i>astral humans</i> consisting ...	The <i>finer substantiality</i> resembled an anlage of today's chemical elements	The <i>denser substantiality</i> resembled today's air.	devel- oping to :	
... of the primordial anlage of the <i>human astral body</i> , originating in the Earth's <i>astral</i> environment ; ...	... of primordial <b>re-production</b> : by <i>life forces</i> it had received from the <i>life ether</i> ; and ...	... of primordial <b>nu-trition</b> : by differentiating the environment chemically.	<b>light-ether</b> , see Tab. D.5.1.	
	The <i>denser substantiality</i> resisted the 1 <sup>st</sup> group of <i>human astral beings</i> of <i>Polaris</i> .			
	Then, however, the <i>human astral beings</i> of <i>Polaris</i> create an image of themselves in <i>denser substantiality</i> : <i>animal-like beings</i> : a <b>primordial animal kingdom</b> on Earth.			

Tab. D.5.5.d. What did originate how during Hyperboreis ?

Now what about the promised quotation ?

„Die Weiterentwicklung der Erde geschieht nun so, dass sich aus dem einen Stoffzustand zwei bilden. Es scheidet sich gleichsam eine dichtere aus und lässt eine dünnere Stofflichkeit zurück. Die dichtere Stofflichkeit ist ähnlich un-  
serer heutigen Luft ; die dünnere ist gleich derjenigen, welche bewirkt, dass sich chemische Elemente aus der früheren ungeteilten Stofflichkeit herausbilden. Daneben bleibt ein Rest der früheren Stofflichkeit, des belebten Äthers, bestehen. Nur ein Teil desselben gliedert sich in die beiden genannten Stoffzustände. Man hat es also jetzt mit drei Stoffen innerhalb der physischen Erde zu tun. Während vorher die **astralischen Menschenwesen** in der Erdenhülle nur auf eine Stofflichkeit wirkten, haben sie jetzt auf drei zu wirken. Und sie wirken darauf auf folgende Weise. Was luftartig geworden ist, leistet der Arbeit der **Astralmenschen** zunächst Widerstand. Es nimmt nicht alles an, was an Anlagen in den vollkommeneren Astralmenschen enthalten ist.

Now the Earth's further development {from *Polaris* to *Hyperboreis*} comes about by one substantial state {*ether*} splitting into two. A denser substantiality separates to say so, leaving back a finer one. The denser substantiality resembles today's air ; the finer one is similar to what brings about chemical elements developing from the formerly united substantiality. Aside from this a rest of the former substantiality {of *Polaris*} remains : vivified ether. Just a portion {of vivified ether} develops into the two substantial states {*denser* and *finer* substantialities} mentioned. So we have three substances {*ethers*} within the *physical* {rather : *etheric*} Earth. Whereas before {during *Polaris*} the **astral human beings** were working on just one substantiality {namely *warmth ether*} in the Earth's mantle, now {during *Hyperboreis*} they are to work on three of them {i.e. the 1<sup>st</sup> group of *astral humans* on the denser substantiality, and the 2<sup>nd</sup> one on both the finer substantiality and the *life-ether* that had remained unchanged since *Polaris*}. Well, and that is how they work on them : What had become air-like {from denser substantiality}, resists the **astral humans** working. It {the air-like} does not accept everything contained in the Anlagen with the more perfect **astral humans**.

To help imagining finer or denser substantialities in two steps we might think of rose water. When dousing rose blossoms with hot water, and steeping them for 24 hours, then straining the rose blossoms [separating denser substances], then rose water remains [as the finer substantiality]. This rose water separates denser substantiality once more [water], evaporating finer substantiality [fragrance] {HRS}. - The quotation continues :

*Die Folge davon ist, dass sich die **astralische Menschheit** in zwei Gruppen teilen muss. Die eine Gruppe ist eine solche, welche die luftförmige Stofflichkeit bearbeitet und darinnen ein Abbild von sich selber schafft. Die andere Gruppe vermag mehr. Sie kann die beiden anderen Stofflichkeiten bearbeiten ; sie kann von sich ein solches Abbild schaffen, dass dieses aus dem lebendigen Äther und der anderen, die chemischen Elementarstoffe bewirkenden Ätherart besteht. Es soll diese Ätherart hier der **chemische Äther** genannt werden.*

*Diese zweite Gruppe der Astralmenschen hat diese ihre höhere Fähigkeit aber nur dadurch erworben, dass sie einen Teil - die **erste Gruppe** - der **astralischen Wesenheit** von sich ausgeschieden und zu niedriger Arbeit verurteilt hat. Hätte sie die Kräfte in sich behalten, welche diese niedere Arbeit bewirkten, so hätte sie selbst nicht höher steigen können. Man hat es hier also mit einem Vorgang zu tun, der darin besteht, dass sich etwas Höheres auf Kosten eines anderen <sup>1</sup> entwickelt, das es aus sich ausscheidet. -*

*So the **astral human beings** had to split into two groups. One group works on the air-like {denser} substantiality, creating an image of themselves. The other group can do more. They can work on the other two substantialities {the finer substantiality and den life-ether} ; they can create an image of themselves consisting of living ether as well as the other {finer} kind of ether evolving to chemical elementary substances. This kind of ether is to be called **chemical ether** here.*

*This second group of astral humans, however, obtained these higher faculties only because they ejected a part - the **first group** - of astral beings and condemned them to low labor. If they had kept the power needed for this low work within themselves, they themselves could not have risen so high. So there is something developing higher at the expense of something else {a lowly one} which it ejected {on top}. -*

There were non-sexual clones arising by parthenogenesis ...

*Innerhalb der physischen Erde bietet sich jetzt folgendes Bild : Zweierlei Wesenheiten sind entstanden. Erstens solche Wesenheiten, die einen luftförmigen Körper haben, an welchem von den zu ihm gehörigen **Astralwesen** von außen gearbeitet wird. Diese Wesen sind tierartig. Sie bilden ein erstes Tierreich auf der Erde. Diese Tiere haben Gestalten, welche ziemlich abenteuerlich den heutigen Menschen vorkämen, wenn sie hier beschrieben würden. Ihre Gestalt - man muss festhalten, dass diese Gestalt nur luftartigen Stoff hat, - gleicht keiner der jetzt vorhandenen Tierformen. Höchstens haben sie eine entfernte Ähnlichkeit mit gewissen Schnecken- oder Muschelschalen, die heute existieren. Neben diesen Tierformen schreitet die physische Menschenbildung vorwärts.*

*Der nun höher gestiegene **astralische Mensch** schafft von sich ein physisches Abbild, das aus zwei Stoffarten besteht, aus dem Lebensäther und dem chemischen*

*On the physical Earth we have now {during Hyperboreis} the following situation : Two kinds of beings arose. In the first place beings with an air-like body, and **astral beings** suited to them {of the 1<sup>st</sup> group, unchanged since Polaris} were working on them from the outside. These beings are alike to animals. They form a primordial animal kingdom on Earth. These animals are shaped so that today's humans would think them rather extreme when describing them here. Their shape - we need to remember that their shapes consisted of air-like {and warmth} substance only - does not resemble any of today's animals. At most they have some remote resemblance to certain snail shells or seashells existing today. Aside from these animal shapes there is the human development progressing. **Astral man** now risen higher, creates a physical {II} likeness of himself consisting of two kinds of substances : of life*

*Äther. Man hat es also zu tun mit einem Menschen, der aus dem Astralleib besteht, und der in einen Ätherleib hineinarbeitet, welcher seinerseits wieder aus zwei Ätherarten - Lebensäther und chemischem Äther - besteht. Durch den Lebensäther hat dieses physische Menschenabbild die Fähigkeit, sich fortzupflanzen, Wesen seinesgleichen aus sich hervorgehen zu lassen.*

*ether and chemical ether. So we are dealing with a human consisting of an astral body and working into an ether body which again consists of two kinds of ether : life-ether {on the one hand} and chemical ether. Life-ether enables this physical human likeness to procreate, {i.e.} to have beings alike to him emerging from him.*

... and initial nutrition ...

*Durch den chemischen Äther entwickelt es gewisse Kräfte, welche den heutigen chemischen Anziehungs- und Abstoßungskräften ähnlich sind. Dadurch ist dieses Menschenbild imstande, gewisse Stoffe aus der Umwelt an sich heranzuziehen und mit sich zu vereinigen, um sie später durch die abstoßenden Kräfte wieder auszuscheiden. Natürlich können diese Stoffe nur aus dem beschriebenen Tierreich und aus dem Menschenreiche selbst genommen sein. Man hat es mit dem Anfange einer Ernährung zu tun. Die ersten Menschenabbilder waren also Tier- und Menschenfresser.*

*Because of the chemical ether {on the other hand} it {this physical human likeness} develops certain powers similar to today's chemical attracting and repulsive forces. So this human likeness is able to attract certain substances from the environment and to mingle with them to expel them later by ejecting forces. Of course these substances can only be taken from the animal kingdom described and from the human kingdom. This is the beginning of nutrition. So the primordial human likenesses were carnivores and cannibals.*

... and unicellular organisms. Partially they are a basis of animal species developing higher {white in Tab. D.5.5.d.}.

*Neben all diesen Wesen bleiben auch noch die Nachkommen der früheren bloßen Lebensätherwesen vorhanden ; aber sie verkümmern, da sie sich den neuen Erdverhältnissen anpassen müssen. Aus diesen bilden sich dann später, nach vielen Umwandlungen, die sie durchmachen, die einzelligen Tierwesen und auch die Zellen, welche später die komplizierteren Lebewesen zusammensetzen.“ (R.Steiner 11:113-116 , VIII).*

*Aside from all these beings there are still the offspring of earlier mere life-ether beings ; but they wither away since they must adapt to the new conditions on Earth. {Much} later, after many a transformation undergone, they build up unicellular animal beings as well as the cells that {still} later compose more complicated living beings {from the beginning of Lemuris on}.*

We should add that the development was not accomplished during *Hyperboreis*. What is described above is the mere basis, and continued during *Lemuris*.

### **Where did life develop ?**

Of course life continued developing after *Polaris*. But it could not yet unfold on the all too hot chunks swimming on the blazing lava and basaltic lava oceans. The only *sphere* life could develop in was to hover above the Earth's surface. Bosse coined the name "*life sphere*". During *Polaris* the temperatures of the upper and the lower *life sphere* did not differ much because the Earth - including the Moon - still were totally engulfed by the world body that contained the Sun, too, as well as Venus and Mercury. As the Earth grew more and more out of this world body during *Hyperboreis*, the Sun did not warm up the Earth any more from the inside as much as it did before during *Polaris*. Instead the Sun shone more and more on the Earth's outside. In the Earth's atmosphere the lower parts cooled down very gradually, and by and by the shining Sun warmed the upper parts up. In these upper layers of the atmosphere life was able to flourish :

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The *life sphere* did not consist of gas above all as does today's air atmosphere but had a colloidal consistency somewhat similar to raw egg-white today. Because of this colloidal consistency the Sun's warmth coming from outside could just scarcely penetrate down to the *life sphere's* lower layers. In this consistency even larger molecules hovered about, and in the warmth of the *life sphere's* upper layers before all, macromolecular substances developed further to *living beings*, and differentiated. So the Sun's warmth furnished the upper *life sphere* with an evolutionary advantage vis-à-vis the lower *life sphere*, and so it was the upper *life sphere* before all that evolves *emerging man's* environment as well as his multiple incarnation forms.

This is how Steiner describes the upper *life sphere* :

*„Dagegen gab es in dieser Erdenumgebung, hier in diesem Umkreis, der dazumal das bildete, wofür wir heute den Luftkreis setzen, etwas, was ungeheuer feinflüssig war, so zwischen unserem heutigen Wasser und der Luft in der Mitte ; feinflüssig war es, aber in seiner Feinflüssigkeit war es ähnlich dem Eiweiß. So dass eigentlich die Erde dazumal ganz umgeben war von einer Eiweiß-Atmosphäre. Das heutige Eiweiß im Hühnerei ist viel gröber, aber es lässt sich schon damit vergleichen.“* (R.Steiner 232:74 , V : 12/1/1923).

*On the other hand there was something extremely fluid in the Earth's environment, in this surrounding that constituted then {increasingly during Hyperboreis} what we take for the air atmosphere today : something in between today's water and air, just about the middle of the two. It was highly fluid indeed but rather similar to egg-white. So that the Earth really was totally engulfed with an egg-white atmosphere then. Today's egg-white in a {raw} chicken egg is a great deal coarser but still we can compare the two.*

*Cosmic ether* enlivened the *life sphere* ...

*„Und, wie gesagt, eigenschaftlich kann ich sie als sehr, sehr flüssiges Eiweiß bezeichnen. Aber diese ganze, die Erde damals umgebende Substanz war durchdrungen vom Weltenall herein mit kosmischem Äther, der diese ganze Substanz belebte. So dass wir den kosmischen Äther uns vorzustellen haben als hereinragend in diese Substanz und sie belebend. Dadurch, dass dieser kosmische Äther hereinragte, dadurch lebte diese Substanz.*

*As I said, I can describe the life sphere's characteristic as very, very fluid egg-white. But all the {life sphere's} substance surrounding the Earth then {during Hyperboreis}, was penetrated from space by cosmic ether which enlivened all this substance. So that we should envisage cosmic ether as intruding into this substance and enlivening it. This substance lived because this cosmic ether intruded into this substance.*

... and so the *life sphere* differentiates into most varying light phenomena.

*Sie lebte aber nicht nur, sondern sie differenzierte sich in eigentümlicher Weise. Da erschien an einer Stelle einmal ein größeres Gebilde, in dem man ersticken konnte, an einer anderen Stelle erschien ein größeres Gebilde, in dem man besonders regsam hätte aufleben können, wenn man als Mensch schon hätte da sein können und so weiter. Es waren da nicht chemische Elemente im heutigen Sinne drinnen, aber es entstanden solche Bildungen, die an die Wirkungen der chemischen Elemente von heute erinnern. Dann war das Ganze von Licht-Spiegelungen, Licht-Ergänzungen, Licht-Erstrahlungen, Licht-Erfunkelungen durchsetzt. Und endlich war das Ganze vom Weltenäther durchwärmt. Das waren*

*It {all the life sphere's substance surrounding the Earth} did not only live but differentiated in a curious way. In one spot there was a larger structure appearing we might have choked to death in. In a different spot there appeared a larger formation wherein we might have revived in an especially vigorous way if we could already have been there as a human {of today} etc. There were no chemical elements like we have them today but there were structures arising that might have reminded us of chemical elements' workings today. Then all that was perfused by light mirroring, light modifications, light radiations, light sparkling. Finally all that was totally warmed up by world ether {cosmic ether}. At*

*alles Eigenschaften der damaligen Erd-  
Atmosphäre, wenn ich den heutigen  
Ausdruck gebrauchen darf.“ (R.Steiner  
232:74 f , V : 12/1/1923).*

*that time {during Hyperboreis} all these were  
characteristics of the Earth's atmosphere if  
I may use today's expression.*

When scrutinizing crystallized quartz we can imagine its substance as colloidal. When moving the crystal the fissures are flaring up in the most varying places in the most flashing colors. We feel moved, as the above quotation indicates. {HRS}.

### **Which Are the Rocks Hyperborean Life Forms Are Discovered In ?**

*„The earliest traces of life forms can be found already in the crystalline shales <sup>1</sup>, for instance in the bacteria-infested stromatolitic dolomites <sup>2</sup> as well as the Banded Iron Formations <sup>3</sup>, or unicellular organisms in graphitic lenses <sup>4</sup>.“ (Bosse 2012, pg 101).*

<sup>1</sup> "Crystalline shales" originated > 538.8 million years ago, see the Earth layer VI d in chapter D.3 «Geological Layers Until Evidencing Fossils».

<sup>2</sup> "Stromatolitic" are biogenetic sediment rocks ; "dolomites" are carbonate rocks.

<sup>3</sup> "Banded Iron Formations" are marine sediment rocks, originating during the Archean and the Proterozoic.

<sup>4</sup> "Graphitic lenses" : graphite is pure carbon ; its lens shape indicates Proterozoic unicellular organisms.

One more step in life shapes :

### **How Was Plant Life Possible When the Sun Had Not Yet Fully Separated from the Earth ?**

We had said above that when the Sun - including Venus and Mercury - and the Earth - including the Moon - had not yet separated there were totally different conditions of space from what we know. We may feel stunned that plants grew in the direction of the center of this joint world body according to both the following quotations. But elderly people might remember the potatoes in granny's dark basement shack. The potato germs, white from lack of light, were searching light while growing. If the small basement window was just in the neighboring basement shack the potatoes grew in that direction through the gaps in the plank walls. If somebody had put a daylight lamp under the potato crate the potato germs would probably try to bend down. So the following quotation does not totally contradict personal experience. Allegedly the *Hyperborean* primordial plants were growing towards the light's center, too, i.e. down ...

*„Als die Sonne noch mit der Erde und  
mit dem Mond verbunden war, gab es  
weder Pflanzen noch Tiere noch Men-  
schen im eigentlichen Sinn des Wortes.  
Einzig das Pflanzenreich existierte, je-  
doch in einer ganz anderen Art als heute.  
Es hat eine besondere Beziehung zu den  
Sonnenkräften bewahrt, entsprechend  
der Beziehung des Tieres zum Monde  
und des Menschen zur Erde. Solange die  
Sonne mit der Mond-Erde verbunden  
war, richteten die Pflanzen ihre Blüten  
hin zum Mittelpunkt des Planeten. Als sie  
sich entfernte, orientierten sie sich nach  
ihr und richteten ihre Blüten zu ihr hin.“  
(R.Steiner 94:105 , XVI : 6/12/1906).*

*When the Sun was still united to the Earth  
and the Moon {during Polaris and Hyperboreis}  
there were not any plants or animals or hu-  
mans properly speaking. The plant kingdom  
was the only one existing, but in a totally dif-  
ferent way than in our days. It had preserved  
a special relation to the Sun powers, corre-  
sponding to the animals' relation to the  
Moon, and man's relation to the Earth. As  
long as the Sun was connected to the Earth  
including the Moon, the plants directed their  
blossoms towards the planet's center {the joint  
center of the rest of the solar cosmos}. When the Sun  
moved away {from the Earth & Moon at the end of  
Hyperborean : Sun separation}, the plants took up  
the new direction turning their blossoms to  
the Sun.*

It looks like the primordial plants' blossoms were growing towards the light. They would grow towards the center of the joint world body only if the light was more powerful there than in the periphery. There has never been question of light gradations like that. On the contrary light was what the archangels {3.2} had created during OLD SUN at the periphery of the world body, sending it to the center, see in vol. I , part 1 , chapter B.4. , subsection «When Hierarchies Are Missing Out : Spiritual Relationships : Sacrifice and Dedication, Gift, Abandonment, and Mastering Renunciation». - Seen *spiritually*, on the other hand, they may have grown towards the *spiritual beings* concentrating in the joint

world body's center the same as today, seen spiritually, the blossoms are growing towards the highest spirit of light.

... and the roots up.

„In noch früherer Zeit waren Sonne, Mond und Erde ein Körper, und alles, was heute Menschen, Tiere und Pflanzen sind, lebte damals noch mit der Sonne zusammen. Zu dieser Zeit war der Mensch noch von ganz ätherischer Gestalt und ganz feiner Materie und lebte eine Art von Pflanzendasein. Erst später bildeten sich Tier- und Menschenformen ; alle Geschöpfe standen noch auf der einen Stufe des Pflanzendaseins. Diese Sonnenpflanzen waren natürlich ganz anders beschaffen als die heutigen Pflanzen. Aber man kann doch davon sprechen, dass sie mit ihrer Blüte der Sonne, das heißt dem Mittelpunkt des Planeten zustrebten und die Wurzel nach oben streckten. In dem Augenblick, als die Sonne aus der Erde ausgeschieden wurde, drehten sich die Pflanzen vollständig um, ihre Blüten wieder der Sonne zuwendend. Von da ab streckte sich die Blüte nach oben und die Wurzel nach unten.“ (R.Steiner 94:165 , X : 7/7/1906).

*In still earlier times* {than the Sun separation, i.e. during *Hyperboreis*} *the Sun, the Moon, and the Earth were one body, and everything that are humans, animals, and plants today lived together with the Sun. At that time man was totally etheric and of finest matter* {mineral}, *thriving on some kind of plant existence. Only later* {predominantly from *Lemuris* on} *did shapes of animals and humans build up. All the creation* {during *Hyperboreis*} *was on just one stage : plant existence. Of course these Sun plants were totally different from today. Still we may speak of them striving towards the center of the planet* {the joint world body of the Sun - including Venus and Mercury - and the Earth - including the Moon - } *and stretching the roots up* {towards the outside}. *The moment* {at the end of *Hyperboreis*} *when the Sun was* {finally, totally} *ejected from the Earth* {now forming the rest of the *solar cosmos*' center together with just the Moon}, *the plants turned round completely, their blossoms facing the Sun again* {}. *From then on the blossoms faced up and the roots down* {the same as today}.

Although not wishing to be too meticulous : Blossoms originated as late as the Mesozoic [251.9 – 66 million years ago], about the same time as birds and mammals. Here Steiner means primordial plants, of course, growing toward the light. Probably he meant to compare conditions of *Hyperboreis* with today's experiences. Once more we can see how important it is when comparing, to mention the limitations of the truths compared.

## Biological Developments

contemporary *clairvoyant* visualizations discovering them in addition to plant life (*Delor 7:362 f, 415 f, and 8:74 , 120 f, altered*) :

**Up to the 4<sup>th</sup> Hyperborean epoch coelenterates** ['hollow intestine' animals developing later to fresh water polyps, jellyfish, sea anemones, coral animals, e.g.] split up into **Protostomia** and **Deuterostomia**. An embryo of at least 16 cells, i.e. a 'morula' = a blackberry because it looks exactly like it, tucks itself in by multiplying its cells without growing because it had not as yet implanted into the uterus. The new form is called 'blastocyst' = germinal vesicle. The blastocyst's opening is called 'blastopore'. **Protostomia** {'mouths first' animals} transform the blastopore to the mouth building the anus anew - excepting of course one-hole animals like cephalopods such as squid - , while **Deuterostomia** {'mouths second' animals} transform the blastopore to their anus building the mouth anew.

According to anthroposophic terminology - and probably other esoteric ones, too, - the **Protostomia** emerged from "*flower animals*" "*up to insects*" (*Delor 8:111*) and from "*shining flower humans*" (*Delor 8:120*). The **Deuterostomia** emerged from "*spineless fish*" (*Delor 8:120, too*).

**Protostomia** is the clade of animals once thought to be characterized by the formation of the organism's mouth before its anus during embryonic development. This nature has since been discovered to be extremely variable among Protostomia's members, although the reverse is typically true of its sister clade, Deuterostomia. Well known examples of **protostomes** are arthropods, mollusks, annelids, flatworms and nematodes. [en.wikipedia.org 8/24]. **Deuterostomia** are bilaterian animals whose developing embryo's first opening [the blastopore] becomes the anus or cloaca, while the mouth is formed at a different site later on. Enclosing e.g. **chordates** [vertebrates e.g., enclosing **man**] and echinoderms [starfish, brittle stars, sea urchins, sand dollars and sea cucumbers, as well as the sessile sea

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lilies]. [en.wikipedia.org 8/24 , altered].

During the 1<sup>st</sup> *Hyperborean epoch* tunicates, e.g. sea squirts, separate from the other chordates.

During the 3<sup>rd</sup> *Hyperborean epoch* the other **Protostomia** split off **worms** as well as **mollusks** [evolving later to snails, shells, mussels, clams, and squid, octopus, and cuttlefish] (*Delor 7:363 , and 8:74 , 121*). - During the 5<sup>th</sup> *Hyperborean epoch* there split off the **arthropods** [insects, centipedes, crustaceans (e.g. crabs, crawfish, barnacles), arachnids (e. g. spiders, scorpions, mites) (*Delor 8:120 f*) and the extinct **trilobites** {see in the Cambrian}].

During the 7<sup>th</sup> *Hyperborean epoch* - the 1<sup>st</sup> day of creation - the **Deuterostomia** split off the **echinoderms** [starfish, sea urchins, sea cucumbers], and while **Lemuris** began : the **tunicates** [e.g. sea squirts] (*Delor 7:362 , and 8:120*).

Remember : All living beings consisted of nothing but the elements warmth and air/gas, and fire ether as well light ether - the same as everything during *Hyperboresis*, see Tab. D.5.1 and Tab. D.5.5.d.

With the 7<sup>th</sup> *Hyperborean epoch* the days of creation began. We shall start with a general overview of *spiritual man emerging* during all the creation days :

### The So-Called Creation Days

„(...) ; it has been stated quite often that the creation days did not indicate time ranges but processes we can just roughly press into definite times.“ (*Delor 7:181*).

„In the “*The Secrets of the Biblical Genesis*”<sup>1</sup>, CW 122, Rudolf Steiner describes in a most detailed way : As human 'I's are by and by shifting away from the spirits of form<sup>2</sup> they incarnate

<sup>1</sup> {in this book in vol. I , part 1 , chapter B.5.} , <sup>2</sup> {*thrones*, {1.3}}

on the 1<sup>st</sup> creation day (... , the last *Hyperborean epoch* [?4,570 - 720? million years ago = the end of the Proterozoic]) in a kind of a germ of the sentient soul,

on the 2<sup>nd</sup> creation day - Lemuris - in a kind of germ of the reasoning and mind soul,

on the 3<sup>rd</sup> creation day in a kind of germ of the consciousness soul,

on the 4<sup>th</sup> creation day in an astral body<sup>1</sup>,

on the 5<sup>th</sup> creation day in an ether body<sup>1</sup>,

<sup>1</sup> {as an anlage}

on the 6<sup>th</sup> creation day physically in warmth and air

– and only then all this 'overall package' is blown as a breath into man's precursor lacking an 'I' {so far} and developing quite independently {having breath blown in}, (successively in 12 portions<sup>1</sup>).“ (*Delor 7:477*).

<sup>1</sup> {the primordial peoples of Homo sapiens, described in this book with early Lemuris}

Elsewhere Delor assigns the creation days to geological eras and the anthroposophic ages. Of course they are just approximate assignments :

The 2<sup>nd</sup> so-called day of creation began with the Cryogenian [? 720 – 635 ? million years ago], which Lemuris began with, too, going up to the end [up to 485.4 million years ago] of the Cambrian [538.8 – 485.4 million years ago] (*Delor 7:176*), until there developed almost all the animal species living in water {in the *life sphere* ?}.

The 3<sup>rd</sup> so-called day of creation began with the Ordovician [485.4 - 443.4 million years ago] going ~ up to the middle [~ 390 million years ago] of the Devonian [419.2 – 358.9 million years ago] (*Delor 7:176 , 311*), until there arose "quite wobbly ground" (*Delor 7:262*).

The 4<sup>th</sup> so-called day of creation ~ began with the 2<sup>nd</sup> half of the Devonian going up to ~ the 1<sup>st</sup> half [up to ~ 330 million years ago] of the Carboniferous [358.9 – 298.9 million years ago] (*Delor 7:176*). The Sun, the Moon, and the stars could have been seen [*Luther I:14-18 / Buber & Rosenzweig I:10*] (*Delor 7:266 f*).

The 5<sup>th</sup> so-called day of creation ~ began with the 2<sup>nd</sup> half of the Carboniferous going up to ~ the middle [up to ~ 275

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million years ago] of the Permian [298.9 – 251.9 million years ago] (*Delor 7:172 , 176 , 182*), until just about when the Moon had almost finished separating (*Bosse 2012, S. 104 ; Delor 6:138 , 199 , 213 , Delor 7:12*).

The 6<sup>th</sup> so-called day of creation began with the Moon finishing its separation (*Delor 7:176 , 186*), had its emphasis at the transition [~ 250 million years ago] from the Permian to the Triassic [251.9 – 201.3 million years ago] (*Delor 6:420*), going according to the bible until God - seen anthroposophically it is *Yahve-Elohim* - created man in His image :

«*So God created man in his own image ...*» [KJV I:27],

«*Gott schuf den Menschen zu seinem Bilde ...*» [Buber & Rosenzweig I:11].

At the same time God instructed man about his position on Earth [KJV I:28-30 / Buber & Rosenzweig I:11]. But only after the 7<sup>th</sup> so-called day of creation [KJV II:2-3 / Buber & Rosenzweig I:11 f] and shortly before paradise began [KJV II:8 / Buber & Rosenzweig I:13] did Jehovah (*Delor 6:442*) blow "the breath of life" into *spiritual man evolving* (*Delor 6:440 f , and 8:66*).

«and the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life ; and man became a living soul.» [KJV II:7],

«(...) und ER, Gott, bildete den Menschen, Staub vom Acker, er blies in seine Nasenlöcher Hauch des Lebens, und der Mensch wurde zum lebendigen Wesen.» [Buber & Rosenzweig I:13, too].

The 7<sup>th</sup> so-called day of creation, when the *spiritual beings* «... rested on the seventh day from ...» [KJV II:2] / «feierten» {celebrated} [Buber & Rosenzweig I:11] their tasks on Earth, took place earlier than paradise. Delor recognizes the *Lemurian* fall from grace during the Triassic [251.9 – 201.3 million years ago] (*Delor 6:377 ff*), and the expulsion from paradise at the transition [~ 200 million years ago] from the Triassic to the Jurassic [201.3 – 145 million years ago] (*Delor 7:38*).

The 4<sup>th</sup> so-called day of creation is the only one to have the Genesis coinciding with Delor's foretold descriptions.

We need to repeat for emphasis :

„*The biblical creation days are processes, not times - processes overlap continually, you cannot define a precise beginning or end.*“ (*Delor 6:420*).

### The 7<sup>th</sup> Hyperborean Epoch

(?4,570 - 720? million years ago, duration ?3,850? million years.)

It is here that the biblical Genesis begins with the 1<sup>st</sup> creation day.

#### The So-Called First Day of Creation

comprised of the Proterozoic [?2,500? - 538.8 million years ago] just the time up to the beginning of *Lemuris* [?720? million years ago] (*Delor 7:176*) , i.e. just including the 7<sup>th</sup> *Hyperborean epoch* (*Delor 8:74*). Of the Proterozoic's last section, of the Neo-Proterozoic [?1,000? - 538.8 million years ago], it contained just the earliest part of 3 : Tonium [? 1,000 - 720? million years ago, see Tab. D.5.4.].

„*On the 1<sup>st</sup> creation day the Sun and the Earth separated according to Rudolf Steiner ; let me assume he meant 'the Earth's beginning 4.6 billion years ago', when the Earth began {!} separating within the Sun as an autonomous entity, not yet, however, meaning the Sun separation finished at the time of 'snowball-Earth' ?*

*You are right, the Genesis begins when the Earth begins developing within the Sun as an autonomous body, like an embryo, - at the beginning of the Precambrian [Hadean, ?4570 million years ago], the Earth's so-called 'primordial time' or the 7<sup>th</sup> Hyperborean sub-epoch.*“ (*Delor 8:12*).

Remember : In scientific determination the Earth's primordial time is limited to the Archean. - The 7<sup>th</sup> *Hyperborean* is an epoch, *Hyperboreis* being an age, see Tab. D.5.2.

*Human 'I's incarnate as the earliest anlagen of sentient souls* (*Delor 7:180*).

## The Sun Separating

During all the *Hyperboreis* the future world body of the Earth and the Moon developed in the direction of the rim of the so far joint world body that also contained, and mostly consisted of, the Sun including Venus and Mercury. When the Earth including the Moon left the joint world body we might speak of the Earth's birth. Earth rocks were dated ~ 24.54? billion years old, and highly similar Moon rocks ~ 24.527? billion years, i.e. earlier than the Sun „*parted from the Earth*“, see below. This would indicate the Earth and the Moon developed within the formerly joint body, and were born just about the same time. As an analogy an embryo starts developing before his birth. When was the Earth finally born to say so ? - At the end of the Tonian [?1,000 - 720? million years ago], the so-called snow-ball time [?750 – 630? million years ago] (*Delor 7:380 f*), the end of the 7<sup>th</sup> *Hyperborean epoch* [?720? million years ago].

„*Dann kam der Zeitpunkt, wo die Sonne sich heraushob aus der Erde. Sie trennte sich von ihr, und ihr Licht fiel von außen auf die Erde herab. (...) Der Mensch musste mit seinen äußeren Sinnen die Dinge der Erde erkennen lernen.*“ (R.Steiner 96:186 , XII : 22.10.1906 evening).

*Then came the time when the Sun lifted herself out of the Earth. He parted from the Earth, his light shone on the Earth from outside. (...) Man had to learn to recognize things on Earth with his outer senses.*

Comparing the size proportions of the Sun to the Earth plus the Moon combined, we might wonder why Steiner speaks of the *Sun separation*. Rather did the Earth plus the Moon leave the Sun. We can, however, understand the expression when remembering that in anthroposophy - and probably with other esoterics, too - any event and any development is looked at from man's view point and the Earth's. It is a geocentric and finally anthropocentric view.

To begin with : What does make sense for *spiritual beings* separating together with the Sun ? - The Sun and the Earth including the Moon had to separate so that *spiritual beings* having developed further than man, could have a home.

„*Es spaltet sich aus der Feuer-Luft-Erde ein selbständiger Weltkörper ab, der dann in seiner weiteren Entwicklung zur gegenwärtigen Sonne wird. Vorher waren Erde und Sonne ein Körper. Nach der Abspaltung der Sonne hat zunächst die Erde noch alles in sich, was in und auf dem gegenwärtigen Monde ist. Die Absonderung der Sonne geschieht, weil höhere Wesenheiten zu ihrer eigenen Entwicklung und zu dem, was sie für die Erde zu tun haben, die bis zum Wasser verdichtete Materie nicht weiter ertragen können. Sie sondern sich aus der gemeinsamen Erdenmasse die allein für sie brauchbaren Substanzen heraus und ziehen sich aus derselben heraus, um sich in der Sonne einen neuen Wohnplatz zu bilden. Sie wirken nun von der Sonne aus von außen auf die Erde. Der Mensch aber bedarf zu seiner weiteren Entwicklung eines Schauplatzes, auf dem sich die Substanz noch weiter verdichtet.*“ (R.Steiner 13:224 f , IV).

*From the Earth {including the Moon} consisting of fire and air {Hyperboreis}, an autonomous world-body separates continuing its development to today's Sun. Before that {during Hyperboreis} the Earth {including the Moon} and the Sun {including Venus and Moon} had been one {world-} body. After the Sun had separated, the Earth initially contains everything there is in and on today's Moon. The Sun is separated because higher {spiritual} beings would not be able to stand {later, during Lemuris} matter condensed as far as water, for the sake of their own development as well as for what are their tasks on Earth. They extract from the joint mass of the Earth {+ Moon} the substances useful to them, and move away to create a new home in the Sun. From then on they are working on the Earth from outside. Man, however, needs a place for the sake of his own development where substances will condense still further.*

Delor describes vividly this transition phase between *Hyperboreis* and *Lemuris* :

„*Man muss sich die Sonne damals, am*

*We need to imagine the Sun {including her at-*

*Hyperboräis-Lemuris-Übergang, in riesigen Dimensionen vorstellen — sie ging als Kugel bis zur heutigen Erdbahn, entsprechend wie bei der späteren Mondentrennung die Atmosphäre der Erde noch bis zur heutigen Mondbahn reichte. Auch die Sonnen / Erden-Trennung ist ein durch gewaltige ätherische Kräfte bewirkter Zellteilungs- oder Geburts-Vorgang ; die seit dem sog. ‚Erdanfang‘ (Beginn der letzten Hyperboräis-Epoche oder des 1. Schöpfungstages) schon innerhalb der Sonne ‚vorgebildete‘ Tohu-wa-Bohu-Erde steigt aus dem Sonnen-Inneren auf und erreicht am Ende der letzten Hyperboräis-Epoche oder am Übergang vom 1. zum 2. Schöpfungstag die damalige Sonnen-Peripherie, während die Sonne insgesamt sich weiter zusammenzieht – die Erde durchbricht die Sonnenoberfläche und ist auf einmal an der jetzt der Sonne abgewandten Seite schockartig der Weltraumkälte ausgesetzt, was die sog. ‚Schneeball-Erd(hälfte)‘ zur Folge hat, während auf der der Sonne zugewandten Seite noch unvorstellbare Feuer-Gewalten spielen.“ (Delor 7:457).*

*mosphere} in huge dimensions at the transition from Hyperboreis to Lemuris. As a ball she extended as far as today’s Earth’s orbit. In a similar way the Earth’s atmosphere extended as far as the orbit of today’s Moon later when the Moon separated. When the Sun and the Earth separated there were huge etheric forces <sup>1</sup> going on comparable to cell division or birth-giving. At the so-called ‘beginning of the Earth’ (at the beginning of the last Hyperborean epoch or the 1<sup>st</sup> creation day) the Tohu-wa-Bohu-Earth <sup>2</sup> had been ‘prefabricated’ within the Sun, {now} rising up from the Sun’s interior, and reaching the Sun’s {world body’s} then periphery at the end of the last Hyperborean epoch or at the transition from the 1<sup>st</sup> to the 2<sup>nd</sup> creation day. Meanwhile the Sun {world body} continues contracting. The Earth breaks through the Sun’s {world body’s} surface, and all of a sudden the side averted from the {new} Sun {i.e. the rest of the world body without the Earth} is exposed to the cold in space as if in a shock. Consequently the Earth is ‘(half) a snowball-Earth’ whereas on the side facing the {new} Sun {i.e. the rest of the world body without the Earth} there still are unimaginable forces of fire.*

<sup>1</sup> {forces of autonomous life} <sup>2</sup> {see in vol. I , part 1 , chapter B.5 , subsection «During the So-Called First Day of Creation»}

We authors however cannot agree to this view any more. The seismic and climatic shocks would have extinguished any life forms so far. Which ought to be detected with graphitic lenses failing all of a sudden. They are taken for residuals of monocellular life in crystalline shales. See Bosse 2015, pg 101 , and above in the subsection «Which Are the Rocks Hyperborean Life Forms Are Discovered In ?».

The 3<sup>rd</sup> = *Lemurian Age* = *Lemuris* : Age of Fire, Gas, and Water

(?720? - 66 Ma. Over-all-duration ~ 654 million years.)

Once again an overview, a corresponding extract from Tab. D.5.2.

		Ma = million years ago
<b>[Super-eon : PRECAMBRIAN] :</b> = Earth's primordial eon		?4,570? – 538.8 Ma
<b>PROTEROZOIC</b> = eon of «early life»		?2,500? - 538.8 Ma
Neo-Proterozoic		?1,000? - 538.8 Ma
Tonian		?1,000 – 720? Ma
<b>Lemurian Age</b>		?720? - 66 Ma
<i>Lemuris beginning</i>		?720? - 538.8 Ma
Cryogenian		?720 - 635? Ma
Ediacaran		?635? - 538.8 Ma
<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :		538.8 Ma up to our days
Paleozoic = era of «ancient life»		538.8 – 251.9 Ma
<i>early Lemuris</i>		538.8 - 298.9 Ma
Cambrian		538.8 – 485.4 Ma
Ordovician		485.4 – 443.4 Ma
Silurian		443.4 - 419.2 Ma
Devonian		419.2 – 358.9 Ma
Carboniferous		358.9 – 298.9 Ma
Permian = ~ <i>middle Lemuris</i>		298.9 – 251.9 Ma
Mesozoic = era of «intermediate life» = ~ <i>late Lemuris</i>		251.9 – 66 Ma
Triassic		251.9 – 201.3 Ma
Jurassic		201.3 – 145 Ma
Cretaceous		145 – 66 Ma

Ma = million years ago

Tab. D.5.6.a. The Lemurian age.

**Naming :** Lemuria (*/liˈmjʊəriə/*), or Limuria, was a continent proposed in 1864 by zoologist Philip Sclater, theorized to have sunk beneath the Indian Ocean, later appropriated by occultists in supposed accounts of human origins. The theory was discredited with the discovery of plate tectonics and continental drift in the 20th century. - The hypothesis was proposed as an explanation for the presence of lemur fossils on Madagascar and the Indian subcontinent but not in continental Africa or the Middle East. Biologist Ernst Haeckel's suggestion in 1870 that *Lemuria* could be the ancestral home of humans caused the hypothesis to move beyond the scope of geology and zoogeography, ensuring its popularity outside of the framework of the scientific community [en.Wikipedia.org 8/24].

The *Lemurian Age* has its name from **Lemuria**, a hypothetical or fictitious immersed continent or land bridge supposedly between Madagascar and India, or between Australia and America. The name Lemuria appears first in 1864 in *the Quarterly Journal of Science*, was published in 1874 by Ernst Haeckel („Lemurien“) as «a hypothetical outline» and labeled outdated in 1897 because of newest geologic findings {then}. - The existence of *Lemuria* and other hypothetical land bridges, e.g. between south east Asia and south America, derived from groups of animals and plants spreading disjunctively, has generally been shown an error. Neither the theory of plate tectonics recognized today nor the dispersion movements known in animal geography nor the geology and geography of the sea bottom in the respective support such speculations any more. [Wikipedia.de 5/24].

From the **anthroposophic** point of view Lemuria pushed in the direction of central Asia coming from the region of Madagascar together or in unity with India, subducted under the Himalaya lifting it up. That is why there cannot be found any fossils.

*Lemuris* was the age when *emerging man's* soul anlage found its way to bodies in animal gestalt on Lemuria. The following quotations and texts up to «*Lemuris Beginning*» are dealing with entire *Lemuris*.

„Dann kommt ein Zeitalter, in dem die Erde nur noch mit dem Monde vereint ist, wo ein fortdauerndes Veröden unseres Erdenlebens stattfindet. Wir haben gestern gesehen, wie

Then {after the Sun separation} there comes an age when the Earth is united just with the Moon. Life on Earth deteriorates. Yesterday we saw human souls leaving

*die Menschenseelen diese Erde verlassen, und wie da nur verkümmerte Menschengestalten zurückbleiben. Es ist die Zeit, die man in der geisteswissenschaftlichen Literatur die Lemurische Zeit nennt. In dieser Zeit findet die Abtrennung des Mondes von der Erde statt, und es erfolgt auf der Erde eine Wiederbelebung aller Reiche, die sich auf ihr begründet haben. Die geringste Wiederbelebung braucht das Mineralreich, das Pflanzenreich braucht schon etwas mehr; das Tierreich noch mehr; und das Menschengeschlecht braucht die bedeutsamsten, stärksten Kräfte, damit es sich weiterentwickeln kann. Diese Neubelebung beginnt mit dem Austritt des Mondes. Wir haben da nur eine kleine Anzahl von Menschen (...) und diese Menschen bestehen aus den drei Gliedern, die sie während der Saturn-, Sonnen- und Mondentwicklung aufgenommen haben, zu denen die Anlage zum Ich sich auf der Erde zugesellt hat. -*

*the Earth {and moving to other planets}, and merely withered human frames remaining back {on Earth}. It is the time called Lemurian age in spiritual-scientific literature. During this age the Moon separates from the Earth, and then all the kingdoms founded on Earth revive. The mineral kingdom needs the least being revived ; the plant kingdom needs a bit more, and the animal kingdom still more, and mankind needs the strongest, the most significant forces to go on developing. This revitalization {of man's development} begins when the Moon separated {i. e. from the middle of Lemuris on, ~ 270 million years ago (Delor 6:139)}. There are just a few {emerging} humans (...) and they consist of the three members {-of-being} they had acquired while {OLD} Saturn, {OLD} Sun and {OLD} Moon had developed {namely the physical body, the ether body, and the astral body in earliest Anlagen respectively}. They are complemented by the Anlage of the 'I' during Earth. -*

The *element warmth* had originated during *Polaris*, and *air-gas* during *Hyperboreis*. Now during *Lemuris* the *element watery / liquid* was added, see Tab. D.5.1. Still they were just partially separated for a long time.

*(...) In der lemurischen Zeit war die Erde in einem Zustand, dass zum Beispiel vieles von dem, was heute als festes Mineral vorhanden ist, noch flüssig, aufgelöst war in den anderen Substanzen, die heute als Wässriges abgetrennt sind, wie zum Beispiel das Wasser. Es war eine Zeit, wo die Luft noch durchsetzt war mit dichten Dämpfen der mannigfaltigsten Stoffe. Reine Luft, reines Wasser im heutigen Sinne war im Grunde genommen in dieser Zeit nicht vorhanden, oder wenigstens nur in den kleinsten Gebieten der Erde.“ (R.Steiner 112:87 f, V : 6/28/1909).*

*(...) During the Lemurian time (age) the Earth was in such a state that much of what is for example concrete mineral today, was still liquid, dissolved in other substances which are separate in what is watery today, such as water {itself} for instance. It was a time when the air was still permeated with dense steams of the most varied substances. Pure air, pure water in today's sense did not really exist at that time, or just in most limited areas on Earth.*

- Contrary to the quotation above today's science, here **paleogeology**, regards the Moon separation as a rather violent occurrence - shortly, just 43 million years after the Earth had originated. At that time, i. e. the Moon separation ?4,527? million years ago, there was surely no life possible on Earth. Primordial life came ~ 300 million years later, ~ ?4,200? million years ago.

Anthroposophy on the other hand distinguishes the Moon's genesis, which the age of Moon rocks hints at, and the Moon's birth = the Moon leaving the Earth. Moon rocks whose age was examined, may have originated within the Earth or even when the Earth including the Moon had been contained in the Sun. We authors did not find any paleogeologic assessments to this point.

The *life sphere* changed : The colloidal solution of liquid egg-white combined with chalk dissolved in polluted water, to precursors of bone substance, and - gradually - bony animals emerged.

*„Und wir haben die Erde, umgeben mit dem, was ich gestern genannt habe : das flüssige*

*The Earth is surrounded by what I said yesterday : liquid egg-white. We know*

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*Eiweiß. Und wir wissen, dass die kosmischen Kräfte in dieses flüssige Eiweiß so hereinwirken, dass in bestimmten Formen dieses flüssige Eiweiß gerinnt. Und wir haben gehört, während dieses Zustandes des Erdenwerdens findet in einem erhöhten Maße, in einem dichteren Maße das statt, was wir im Aufsteigen der Regendünste, im Herabkommen des Wassers haben. Das Kalkige steigt nach oben, durchsetzt das, was sich da in dem flüssigen Eiweiß verdichtet hat, mit Kalkigem, füllt es so aus, dass es Knochiges als Inhalt bekommt - und wir haben die Tierwerdung im Laufe des Erdenwerdens.“ (R.Steiner 232:93 , VI : 12/2/1923).*

*that the cosmic powers {life-donating powers from the cosmos} work into this liquid egg-white so that this liquid egg-white curdles in definite forms. We had heard {yesterday} that while the Earth is in this state there occurs in a higher measure - in a more dense measure - what we have when rain fumes rise, {and} water drips down. What is chalk-like rises up {from the ground}, permeating with chalk-like {substance} what had densified in liquid egg-white, so that there originates bone-like substance inside - and we have animals emerging in the course of the Earth evolving.*

That was on the 5<sup>th</sup> and the 6<sup>th</sup> day of creation.

The *life sphere* consolidated over the primordial continental areas ...

*“During the Lemurian age already the life sphere was not homogeneous any more. In the upper part it was still hot, air-like, full of life, while it was dying off, cool, and watery in the lower part. (...) Contrary to this the life processes developed over the continental areas, secreting the masses of substances. It was there that much earlier, just about from the end [from 538.8 million years ago on] of the Proterozoic [2.500? - 538.8 million years ago] on there were increasingly Atlantic conditions [Atlantic age : 66 million years ago – 11.7 thousand years ago] – if we may say so. (...) Over the Earth’s largest part however the water-air-sphere remained undivided up to the later part [up to > 66 million years ago] of the Mesozoic [251.9 - 66 million years ago]. -*

... as well as over the subsidence areas or shoals of the Earth’s crust.

*From the Paleozoic [538.8 – 251.9 million years ago] up to the late Mesozoic the last primary masses of substances from the life sphere did not pour down on all the continental areas any more. Rain-falls concentrated more and more in wide sinks, where the Earth’s continental crust had not hardened that much yet, or where it had broken. At the rims they mixed with the secondary ablation material washed in. These mobile zones or geosynclines [great downward flexures of the earth’s crust] could be several thousands of kilometers long and hundreds of kilometers wide. Many times over they were folded high after [< 66 million years ago] the Mesozoic [251.9 - 66 million years ago] to form today’s high mountain regions. The geosynclines were not however oceanic deep sea basins because up to the late Mesozoic throughout the world there are not any genuine deep sea deposits we might compare. -*

What the geosynclines contained was of so viscous consistency - because of the abraded continent floors, and probably because of the bio-debris raining down from the life sphere, too - that they could not drain off into the surrounding red-hot basaltic lava oceans. Today’s water would have evaporated in them. See below : geology.

The corresponding meteorology ...

*Over the surface of the all-in-one continent there was the air-water-sphere whirling. We need to imagine this sphere on a large scale differentiated as today’s weather cyclones, marine currents, and climate zones all taken together. Such whirls brought about that all the time plains built up at the rims of the Earth’s hardened surface. They persevered up to the end of the Cretaceous [> 66 million years ago]. So there was no landscape in today’s meaning throughout the Lemurian age ! (...)* -

... and geology :

*The abrasion material formed a dense, suspension-like mass which again added to grinding*

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*down the bedrock. It accumulated in continental geosynclines, too, mixing with the primary precipitations. During all the Earth's history the rock and fossil phenomena show conditions comparable to today's shallow inland seas or shelf seas. All the same such redistribution phenomena and interchanging marine and terrestrial sediments etc. cannot be compared to anything today ! In early Earth's history coast lines and delta formations as we know in our days, practically cannot be detected (...).“ (Bosse 2012, pg 99 ff).*

*Lemurian forms of future man took up the new element watery / liquid ...*

*„Mit der Eingliederung der wässrigen Substanz in den Erdenkörper geht auch eine Verwandlung des Menschen einher. Nunmehr strömt in ihn nicht nur das Feuer, und es umspielt ihn nicht nur die Luft, sondern es gliedert sich die wässrige Substanz in seinen physischen Leib ein.“ (R.Steiner 13:225 , IV).*

*As watery substance is integrated into the body of the Earth there is a change in man, too. Now not only fire {as a residual of the Polaric age} streams into man, not only air {air-gas as a residual of the Hyperborean age} billows around man, but watery substance integrates itself into the physical body.*

*... resulting in grotesque forms ...*

*„Auch die Körper, die später Menschenkörper werden sollten, sind noch sehr, sehr tierähnlich. Auf Erden sind die grotesksten physischen Wesenheiten, die sich selbst noch grotesk ausnehmen würden gegenüber dem, was wir heute die grotesksten Tiere nennen. Alles war noch in einer weichen, schlüpfrigen Materie, wässrig oder feurig-siedend, sowohl die Menschen wie auch die Umgebung.“ (R.Steiner 107:76 , VI : 10/29/1908).*

*The bodies, too, that were to become human bodies later on, are still very, very similar to animal bodies. They are the most grotesque physical beings on Earth. They would seem grotesque even when compared to what we call the most grotesque animals in our days. Everything was in a soft, slimy matter, watery or scalding, man as well as the surroundings.*

*„Der Lemurische Mensch ging nicht etwa wie ein Mensch von heute auf seinen Gliedern ; er war mehr oder weniger ein Luftwesen. Alle Organe des heutigen Menschen waren nur andeutungsweise vorhanden ; er konnte sich metamorphosieren.“ (R.Steiner 100:246 , VII : 11/22/1907).*

*Lemurian man was not walking on his limbs as today's. He was rather a being in the air. All the organs of today's human existed merely in outlines. He was able to metamorphize.*

*„Der Scheitel war geöffnet und in diese Öffnung drangen die Lichtstrahlen hinein, so dass der Kopf von einer strahlenden Aura umgeben war und die Menschen so aussahen, als ob sie eine Laterne hätten. - Der Leib war riesengroß und von einer feinen, beinahe gelatineartigen Substanz gebildet.“ (R.Steiner 109/111:63 , 3/28/1909).*

*The crest was open, and rays of light entered this opening so that the head was surrounded by a radiating aura. People looked like carrying a lantern {on their heads}. - The bodies were huge and formed out of a fine substance almost like gelatin.*

*... which the anlagen of the ether body and the astral body could shape because of the physical body's soft consistency.*

*„In der alten Atlantischen Zeit und in der Lemurischen Zeit war der Mensch nicht nur imstande, seine Glieder auszustrecken, sondern er konnte sie auch dehnen und aufplustern. Der physische Leib war dazumal nur ein kleiner Einschluss ; der Ätherleib und der Astralleib waren dagegen riesengroß. Der Astralleib sah aus bald wie*

*During the early [ $< 66$  million years ago] Atlantic age [66 million years ago - 11.7 thousand years ago] and during the Lemurian age [?720? - 66 million years ago] {Lemurian} man was not only able to stretch his limbs. He could lengthen and puff them up. At the time the physical body was just a small embedding ; the ether body and the astral body {- anlagen*

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*diese, bald wie jene Tiergestalt. Der Mensch wechselte fortwährend seine physische Gestalt, je nachdem, was er als Begierden und Impulse in sich trug.*“ (R.Steiner 104 a:106 , VIII : 5/17/1909).

both -} were huge compared to the physical one. The astral body looked like some animal forms at one time and a different one at another time. {Lemurian} man continually changed his physical gestalt, depending on his cravings and impulses.

*„Die Herrschaft des Ätherleibes über den physischen Leib war in früherer Zeit deshalb so groß, weil der physische Leib noch viel biegsamer und geschmeidiger war als jetzt.*“ (R.Steiner 100:246, too).

In earlier times the ether body could dominate the physical body because the physical body was much suppler and smoother than nowadays.

In the new element the faculty to perceive changed, too.

*„(...) ; diesen nimmt nämlich der Mensch nunmehr wie einen feinen Lichtleib wahr. Der Mensch hat vorher Wärmeströme von der Erde zu sich emporkommen gefühlt, er hat Luft durch Tönen zu sich herandringend empfunden, jetzt durchdringt seinen Feuer-Luft-Leib auch das wässrige Element, und er sieht dessen Ein- und Ausströmen als Aufleuchten und Abdämmern von Licht.*“ (R.Steiner 13:225 , IV, too).

(...) ; {Lemurian} man perceives {his etheric part} as a fine body of light. Before {during the Polaric age} man had felt flows of warmth coming up from the Earth. {Then, during the Hyperborean age} he had felt air approaching him via sounds. Now {during the Lemurian Age} his fire-air-body is pervaded by the watery element, and he sees it flowing in and out of him as lighting up and dimming down.

Yet still evolving man did not contain an 'I' ...

*„Es waren natürlich unter diesen grotesken Gestalten die Vorfahren des physischen Menschenkörpers, aber diese waren nicht in Besitz genommen von den Ichs.*“ (R.Steiner 107:76 , VI : 10/29/1908).

Of course there were the precursors of man's physical body among these grotesque gestalts. But so far there were no 'I's to take possession of them.

... but by and by he attained the first anlage of a consciousness soul.

*„Es ist zu den Anlagen der Empfindungs- und Verstandessele diejenige der Bewusstseinsseele getreten.*“ (R.Steiner 13:225 , too).

In addition to the {earliest} Anlagen of the sentient soul and the reasoning and mind soul there was added the {earliest} Anlage of the consciousness soul.

As yet man expressed his intentions unconsciously. We can still find this in our days with animals and toddlers.

*„Dadurch, dass das Ich-Gefühl noch nicht darinnen war, dadurch, dass die menschliche Gestalt noch so beweglich war und noch nicht den Abschluss gefunden hatte, war noch etwas anderes der Fall. Diese Gestalt, die der Mensch jeweils äußerlich darbot und die veränderlich war - je nach seiner inneren Verfassung einmal so und ein anderes Mal anders - , diese äußerliche Gestalt wurde zu einer Art Verräter seines Inneren ; je nachdem er gute oder schlechte Leidenschaften oder Gedanken hatte, formte sich seine äußerliche Gestalt. Man konnte damals durchaus nicht im Verborgenen einen bösen Gedanken hegen, denn die äußerliche*

As the feeling of the 'I' was not in man yet, {and} as the human gestalt was so pliable still and had not found its definite form yet, there was something else we should note. The gestalt became man's traitor since it showed externally how it changed - according to his moods. The external gestalt changed showing his good or bad passions or thoughts. At that time nobody could hedge bad thoughts covertly because the physical body

*körperliche Form nahm sogleich den Ausdruck dafür an, und so erschien der Mensch in allen möglichen Gestalten.“ (R.Steiner 105:112).*

*formed correspondingly at once, and so man appeared in any gestalt you might imagine.*

In our days higher animals and toddlers do not betray their minds by the gestalt any more but by their posture. Unconscious memories, too, can be found with both of them. Perhaps one or the other adult will remember similar experiences as I {KvP} did ? I remember to have wished to hit my mother when I was in nursery school age. But I couldn't. My arm stuck in midair. It certainly was not because I was not enraged enough. For years and years I did not know why I had not been able to hit her. When I was an adult my mother told me - remorseful, I think - she had spanked me severely just once when I had hit her when I was two years old, still during WW2. As a nursery school child and all the decades after I had not remembered. But I had adopted my behavior accordingly. - I have similar experiences with my dog, not hitting him but with accidents.

*Spiritual man emerging was led by spiritual beings ...*

*„Der Mensch war damals gar nicht selbständig ; er konnte nur das tun, was ihm durch die geistigen Kräfte eingegeben wurde, in deren Mitte er sozusagen eingebettet war. Alles bekam er von ihnen, und er handelte wie durch einen seelischen Instinkt getrieben. Da offenbarte sich Wirkung von geistigen Wesenheiten, die nicht zur physischen Inkarnation heruntergestiegen waren.“ (R.Steiner 109/111:63 , too).*

*At the time man was not independent at all. He could just do what the spiritual powers inspired. He was embedded to say so in their midst. Everything came from them, and he acted as if driven by an instinct of his soul. That is when spiritual beings that had not descended to physical incarnation, manifested their workings.*

... who worked on *man emerging* from the outside after the Sun had separated, ...

*„Gewisse höhere Wesenheiten, die vorher in dem Erdenkörper selbst waren, wirken nunmehr auf diesen von der Sonne aus. Dadurch verändern sich alle Wirkungen auf der Erde. Der an die Erde gefesselte Mensch könnte die Wirkungen der Sonnenwesen nicht mehr in sich verspüren, wenn seine Seele fortwährend der Erde zugewandt wäre, aus welcher sein physischer Leib genommen ist. -*

*Certain higher beings who had been contained in the Earth's body before {the Sun separation}, are now {during Lemuris} working on it from the Sun. That is why all the effects on Earth change. Man is tied to the Earth and would not be able to feel the Sun beings' working within himself any more {!} if the soul would continually have turned to the Earth since the physical body is taken from there. -*

... and so *man emerging* alternated between pure soul and physical vivacity.

*Es tritt nunmehr ein Wechsel in den menschlichen Bewusstseinszuständen auf. Die Sonnenwesen entreißen die Seele des Menschen zu gewissen Zeiten dem physischen Leibe, so dass der Mensch jetzt abwechselnd im Schoße der Sonnenwesen rein seelisch ist, und zu anderen Zeiten in einem Zustande, wo er mit dem Leibe verbunden ist und die Erde empfängt. Ist er im Physischen Leibe, dann strömen die Wärmeströmungen zu ihm auf. Es umtönen ihn die Luftmassen ; es dringen die Wasser aus ihm aus und in ihn ein. Ist der Mensch außerhalb seines Leibes, dann ist er in seiner Seele durchwogt von den Bildern der höheren Wesen, in deren Schoße er ist.*

*{So} human consciousness alternates. At certain times the Sun beings tear the human soul out of the physical body. So from now on man is in turns pure soul hatched by the Sun beings, and at other times tied to the {physical} body receiving the Earth. When he is in the physical body, warmth streams will flow up to him, the masses of air will resound around him, {and} water will enter him and leave him. {But} when man is outside the {physical} body, he is pervaded in the soul by images of the higher beings hatching him.*

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The Earth and living beings were still physically united at times, so the Earth underwent periodical changes as well.

*Die Erde durchlebt auf dieser Stufe ihrer Entwicklung zwei Zeiten. In der einen darf sie mit ihren Substanzen die Menschenseelen umspielen und sie mit Leibern überziehen ; in der anderen sind die Seelen von ihr gewichen ; nur die Leiber sind ihr geblieben. Sie ist mit den Menschenwesen in einem schlafenden Zustande. Man kann durchaus sachgemäß davon sprechen, dass in diesen Zeiten urferner Vergangenheit die Erde eine Tages- und eine Nachtzeit durchmacht. (...) -*

*At this stage of development the Earth undergoes two states. In one of them {her soul state} she may waft about the human souls with her substances, dressing them up with bodies. In the other state the souls parted from her, just the bodies staying with her. She is then in a sleeping state together with the human beings. We may well speak appropriately of the Earth going through a day time and a night time in this remote past. (...) -*

At nighttime those parts of the human body which had not been densified and hardened by the fire of *Polaris* and the human soul, dissolved in the Earth's mass ...

*Wendet man den Blick von der Erde während ihrer Nachtzeit, so würde man ihren Körper Leichnam-ähnlich sehen. Denn sie besteht ja zum großen Teile aus den verfallenden Leibern der Menschen, deren Seelen in einer andern Daseinsform sich befinden. Es verfallen die gegliederten, wässrigen und luftförmigen Gebilde, aus denen die Menschenleiber gebildet waren, und lösen sich in der übrigen Erdenmasse auf. Nur derjenige Teil des Menschenleibes, welcher sich durch das Zusammenwirken des Feuers und der Menschenseele vom Beginne der Erdenentwicklung an gebildet hat, und welcher dann in der Folge immer dichter geworden ist, er bleibt bestehen wie ein äußerlich unansehnlicher Keim.*

*If we would catch a look of the Earth during nighttime, we would see her body resembling to a corpse. Because a large part of her consists of decaying human corpses whose souls are in a different state of existence. The structured watery and air-like parts wherefrom the human bodies had been built, decay and dissolve in the rest of the Earth's mass. What persists as a germ looking outwardly shabby, is just the part of the human body that had been formed by fire and the human soul from the beginning of the Earth's development on, densifying all the time.*

... whereas at daytime the human souls made their *physical* germs burgeon so that the bodies' gestalten resembled an image of the actual soul state. It is because of the soul forces that air and water were sucked in and ejected. After the *Hyperborean age* there were further developments of breath and nutrition. - *Man evolving* began perceiving his gestalt as long his soul was with his *physical body* - of course without thinking as yet.

*Man darf also, was hier über Tages- und Nachtzeit gesagt ist, sich nicht zu ähnlich denken dem, was für die gegenwärtige Erde mit diesen Bezeichnungen gemeint ist. Wenn nun zur beginnenden Tageszeit die Erde wieder der unmittelbaren Sonneneinwirkung teilhaftig wird, dann dringen die Menschenseelen in den Bereich des physischen Lebens. Sie berühren sich mit jenen Keimen und machen sie aufsprießen, so dass diese eine äußere Gestalt annehmen, welche wie ein Abbild des menschlichen Seelenwesens erscheint. Es ist etwas wie eine zarte Befruchtung, die sich da abspielt zwischen Menschenseele und Leibeskeim. Nun beginnen diese also verkörperten Seelen auch wieder die Luft- und Wassermas-*

*So we must not take what is said here of daytime and nighttime, as meaning something all too similar to today's Earth with all such notions. {Namely} when daytime begins and the ground takes up direct sunshine once more, then the human souls enter physical life {again}. They touch the germs {of the physical bodies}, making them burgeon, so that they take on a physical gestalt which resembles an image of the human soul being. It is something like a tender fertilization going on between the human soul and the physical germ. Now the souls embodied like this begin attracting the masses of air and water once*

sen heranzuziehen und sie ihrem Leibe einzugliedern. Von dem gegliederten Leib wird die Luft ausgestoßen und eingesogen : die erste Anlage zum späteren Atmungsprozess. Auch wird das Wasser aufgenommen und ausgestoßen : eine ursprüngliche Art des Ernährungsprozesses beginnt. Diese Vorgänge werden aber noch nicht äußerlich wahrgenommen. Eine Art von äußerer Wahrnehmung findet durch die Seele nur bei der charakterisierten Art von Befruchtung statt. Da fühlt die Seele dumpf ihr Erwachen zum physischen Dasein, indem sie den Keim berührt, der ihr von der Erde entgegengehalten wird. Sie vernimmt da etwas, was sich in etwa in die Worte bringen lässt : 'Das ist meine Gestalt'. Und ein solches Gefühl, das man auch ein aufdämmerndes Ich-Gefühl nennen dürfte, bleibt der Seele während ihrer ganzen Verbindung mit dem physischen Leibe.

more, and incorporating them into their bodies. The structured bodies eject the air and suck it in : the first anlage of a coming breathing process. The water, too, is sucked in and ejected : the beginning of a primordial way of a nutrition process. These occurrences are not realized consciously yet. A kind of recognition of what is outside can only come about when there occurs a kind of fertilization characterized before {namely the souls working on the bodies}. It is then that the soul feels waking up in physical existence while touching the germ which the Earth offers the soul. There the soul feels something that might be clad in words like : 'This is my gestalt'. Such a feeling might be called a dawning feeling of the 'I'. Such a feeling stays with the soul as long as it is connected to the physical body.

The next quotation indicates that there was still a close connection between the *physical body* and the soul as a steppingstone to the *spiritual*. There was a constant exchange between these states which are but little pronounced as yet and which we might call daytime and nighttime as an analogy to today's changes.

Den Vorgang der Luftaufnahme empfindet aber die Seele noch durchaus seelisch-geistig, noch als einen bildhaften. Er erscheint in Form von auf- und abwogenden Tonbildern, welche dem sich gliedernden Keim die Formen geben. Die Seele fühlt sich überall von Tönen umwogt, und sie empfindet, wie sie sich den Leib nach diesen Tonkräften ausgestaltet. Es bildeten sich so Menschengestalten auf der damaligen Stufe aus, die für ein gegenwärtiges Bewusstsein in keiner Außenwelt beobachtet werden können. Wie feinsubstanziale pflanzen- und blumenartige Formen bilden sie sich aus, welche aber innerlich beweglich sind und demnach wie flatternde Blumen erscheinen. Und das selige Gefühl seines Gestaltens zu solchen Formen durchlebt der Mensch während seiner Erdenzeit. Die Aufnahme der wässrigen Teile wird in der Seele als Kraftzufuhr, als innerliche Stärkung empfunden. Nach außen erscheint es als Wachsen des physischen Menschengebildes.“  
(R.Steiner 13:225-228 , IV).

What is going on when incorporating air, is what the soul still feels as something mental-spiritual, totally imaginary, appearing as sound images wafting up and down and giving shape to the germ, organizing it thereby. The soul feels like being surrounded all over by sounds, and forming the {physical} body according to the powers in these sounds. That is how human gestalten built up at that stage. Human gestalten which today's consciousness cannot observe in any kind of the exterior world. They built up as forms of fine substance resembling plants and flowers, but flexible internally and so resembling fluttering flowers. Meanwhile man {evolving} lives through the blissful feeling of forming such gestalt while on Earth. Taking up the watery parts is what the soul experiences as taking up force, as internal strengthening. This is what appears to the outside as the physical human form growing.

**Lemuris – Beginning.**

(?720? - 538.8 million years ago, duration 181 million years).

Another overview first, a corresponding extract of Tab. D.5.2. and D.5.6. a :

<b>[super-eon : Precambrian period] :</b>		= Earth's primordial eon	?4,570? – 538.8 Ma
<b>Proterozoic = eon of «early life»</b>			?2,500? - 538.8 Ma
	Neo-Proterozoic		?1,000? - 538.8 Ma
	Tonian		?1,000 – 720? Ma
		<b>Lemurian Age</b>	?720? - 66 Ma
		<i>Lemuris beginning</i>	?720? - 538.8 Ma
	Cryogenian		?720 - 635? Ma
	Ediacaran		?635? - 538.8 Ma

Ma = million years ago

Tab. D.5.6.b. *Lemuris beginning.***The So-Called Second Day of Creation**

ringed in *Lemuris*. It lasted ~ from the Cryogenian [?720 – 635? million years ago] up to ~ the end of the Cambrian [up to 485.4 million years ago] (*Delor 7:176*). During this time the *spiritual* human 'I' developed as far as the earliest anlagen of the reasoning and mind soul (*Delor 7:180*).

„Nachdem eingeschlagen hat das Licht in das tohu wa-bohu, da schieden die Elohim das, was schon früher ein Wässriges war, so, dass man wieder unterscheiden konnte das, was gasförmigen Zustand hatte, von dem, was im früheren Sinne in wässrigem Zustand war. (...) -

*After light staved into the tohu wa-bohu* {see in vol. I, part 1, chapter B.5, subsection «During the So-Called First Day of Creation»} {at the end of *Hyperboreis*}, *the elohim* {2.3} *divided what had been watery already earlier* {during *Hyperboreis*} *so that* {now, at the transition from the *Hyperborean* to the *Lemurian ages*} *we might have distinguished again* {the same as during *OLD MOON*} *what was in a gaseous state* {during *Hyperboreis*} *from what had been in a watery state in an earlier state* {during *OLD MOON*}. (...) -

(...) Die Elohim bewirkten durch ihr kosmisches Sinnen, dass in dem tohu wa-bohu eine Scheidung eintrat von zwei elementarischen Zuständen. Der eine hatte die Tendenz, nach aufwärts zu dringen, dampfförmig zu werden, das ist Wässriges in Gasiges sich umbildend. Der andere hatte die Tendenz, nach unten sich zu ergießen, das ist Wässriges, das immer dichter und dichter sich zusammenschließt. (...) -

(...) *By cosmic reflection the elohim caused the tohu wa-bohu to separate into two elementary states. One of them had the tendency to soar up becoming steam, i.e. transforming the watery into gas. The other one had the tendency to spill downward, i.e. the watery densifying more and more.* (...) -

Damit haben wir das getroffen, was als ein zweiter Moment in der Genesis geschildert wird. So dass wir, wenn wir es in unsere Sprache übersetzen wollten, sagen müssten : Die Elohim trennten zunächst innerhalb der durcheinander wirbelnden elementarischen Zustände die Luft von dem Wasserhaften.“ (R.Steiner 122:73 ff, IV : 8/19/1910).

So we encounter what is outlined in the genesis as the second moment {day of creation}. So that we ought to say when translating it into our idiom : For the time being the elohim divided the air from the watery within the elementary states swirling around pell-mell.

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The 1<sup>st</sup> *lemurian epoch* : The Cryogenian and the Ediacaran (Delor 7:8). The Sun rising in the zodiac sign of Pisces on the autumn point [9/21] (Delor 6:212 f).

Cryogenian [?720 – 635? million years ago, duration ?85? million years] : «Snowball-Earth» [?750 – 630? million years ago] : the Earth totally frozen over ? (Delor 7:7) / hardened (Delor 7:170, 447) = 1<sup>st</sup> *lemurian icing / hardening* (Delor 7:170, 447) :

- «Snowball-Earth» : Sturtian glaciation [?715 – 680? million years ago] (Delor 6:108), and
- «Snowball-Earth» : Marinoan glaciation [?660 – 635? million years ago] (Delor 6:108).

Both lines, Protostomia and Deuterostomia - see the end of subsection «The *Hyperborean age*» - , connected to each other, developing in the anthroposophic world view clearly up to man. "*Blossoming man*" and "*human calyx*" are esoteric connotations of Protostomia.

*"So according to Steiner both lines connect when Lemuris began, when the Earth densified from the gas-like before to the watery {state}, in the way that a shining 'blossoming man' or 'human calyx' from the Protostomia line connects with a still worm-like 'primordial fish' from the Deuterostomia line, as much as growing into the primordial fish with the human calyx's stalk where there is the fontanel<sup>1</sup> today (this stalk becoming the spine<sup>1</sup> later), but staying outside the head<sup>1</sup> as a shining<sup>2</sup> organ over long periods – indeed Steiner speaks of a 'lantern'. They say a relic were the light-sensitive vertex eye of some primordial reptiles. To be imagined, however, in dimensions of a sky scraper, even of a mountain perhaps ! -*

<sup>1</sup> {of the still worm-like 'primordial fish'}, <sup>2</sup> {human}

*In the course of evolution the vertex eye tucks into inside the skull, connecting to the brain more and more, and finally forming the brain as a thick frontal end of the spinal marrow – its very last rest forming the pineal gland inside the skull. The more the lantern tucks into the head the more the being developing into a human straightens up. The stages are : fish-like → amphibian-like → reptile-like → mammal-like interim stages, and then, only after becoming 'I'-warmth man i.e. having the breath of life breathed into his nostrils, stages of becoming more and more human-like outwardly, too. In all stages man leaves corresponding animals behind. (...)* -

*Merging two lines of development like this : Isn't that great ? Well, one thing is clear : Today's kingdoms (mineral, plant, animal, and human kingdom) do not form from earlier kingdoms in a linear way ('mineral man' during *Polaris* ; 'plant man' and 'mineral animals' during *Hyperboreis* ; 'animal man', 'plant animals' as well as 'mineral plants' during *Lemuris* as far as the Moon separation), but have been forming in diverse and very complicated eliminations and new developments. -*

*ONE such development has been accepted by today's science<sup>1</sup> : It is generally presumed that **mitochondria** ('power plants' in cells, metabolizing glucose and oxygen to carbon dioxide and water, thus producing warmth) and **chloroplasts** (the green 'synthesizers' in plants, effecting the contrary process by solar energy and chlorophyll : synthesizing carbon dioxide and water to glucose, thereby freeing oxygen), cell components or organelles today, had been AUTONOMOUS BACTERIA or CYANO BACTERIA respectively in earlier days, entering firm symbioses with higher organisms, and virtually merging with them. They still have a DNA of their own, independently of the DNA of the host they live in. (...)* -

<sup>1</sup> {biology, physiological chemistry}

*Fertilization of the 'fishes' by 'flower man' (still lacking an 'I') occurred during the first lemurian epoch ('Pisces' of the zodiac) immediately after the Sun separation ; during the second lemurian epoch ('Aquarius') occurred consolidation : entering, uniting, and anchoring. -*

*Perhaps the 'flower people' were constituted of gas only during the first lemurian epoch ? - So it was. Even the 'lanterns', i.e. the 'flower people' already united to worm-fishes, were all made up of gas for a long time." (Delor 7:417 ff)*

*"When did **mitochondria** and **chloroplasts** unite with plant and animal cells ? - Both occurred at the very beginning of 'no-snowball-Earth', even before the cells grew into higher organisms." (Delor 7:425).*

'No-snowball-Earth' : Delor means the time of 'Snowball Earth' [~ ?750– 630? million years ago] (other dates in Delor

7:7)], but questioning whether all the Earth was glaciated (*Delor 6:108 f, Delor 7:7*).

### Damaging *Spiritual* Beings

met with *living beings* on Earth during this *1<sup>st</sup> lemurian icing / hardening*.

*"The {first} 'downfall of the spirits of darkness'. These are the times when the negative forces intruded. During the so-called 'snowball Earth' they are the Asuras, (...) radiating (...) still much more violent coldness than even Ahriman (...)." (Delor 7:447).*

<sup>1</sup> {erste}

Lucifer joined in during the *2<sup>nd</sup> lemurian glaciation / hardening* during the Ordovician [485.4 - 443.4 million years ago], and Ahriman during the *3<sup>rd</sup> lemurian glaciation / hardening* during the Permian [298.9 - 251.9 million years ago] (*Delor 7:447*). We will meet with them in the subsection «*early Lemuris*» during the 3<sup>rd</sup> and the 4<sup>th</sup> so-called day of creation.

All of them, Lucifer, Ahriman, and Asuras accompany us up to today and ongoing, see in vol. I , part 1 , chapter B.3 , the last three subsections, from «Lucifer and Ahriman» up to «Summarizing ...». Where do these *spiritual beings* come from ?

*„Da waren aber andere Wesenheiten, nicht Menschen, sondern Wesenheiten, die zurückgeblieben waren auf dem Alten Monde, die nicht haben Götter werden können. Was auf dem Monde eine höhere Stufe erreicht hatte, hatte jetzt seinen Schauplatz auf der Sonne, wo die Elohim sind, welche auf der Sonne so wohnen, wie der Mensch auf der Erde. (...) -*

*There were however other beings, not humans, but beings left over on the {during} OLD MOON {because} they could not become gods. Whatever had reached a higher stage on the {during OLD} MOON, could be seen to lodge on the Sun where the elohim {2.3} live as man does on Earth. (...) -*

*Nun waren auf dem Alten Monde aber Wesen darunter, die nicht mitgehen konnten mit der Sonne, weil sie eben 'sitzen geblieben' waren.*

*On the {during} OLD MOON there were however beings who could not go on to the Sun because they had just 'missed out'.*

In vol. I , part 1 in the preamble «In Short ...» as well as in chapter B.4 «Mankind-Oriented Hierarchies in the Spiritual World» we had called a similar occurrence 'lagging'. There it was about *beings* who had wished to continue following man's course of development although they had hesitated or lagged behind. The damaging *spiritual beings* mentioned here, however, did not even need striving for further development to work on man. We know they developed higher than *man evolving* because they were able to influence him.

*Sie waren natürlich viel höher entwickelt als die Menschen ; sie hatten etwas, was die Menschen sich erst erringen sollten ; sie hatten schon ein solches Bewusstsein, wodurch man äußere Gegenstände sieht. Sie konnten sich schon der Werkzeuge bedienen, die der Mensch noch nicht gebrauchen konnte. Der Mensch hatte noch blinde Augen und taube Ohren. Seine Augen und Ohren waren erst in der Anlage ausgebildet, sie sollten erst später sehend und hörend werden. -*

*Of course they had developed much higher than man. They had something man still was to achieve : They could see outer objects consciously. They could use tools already which man could not. Man still had blind eyes and deaf ears. His eyes and ears had developed just as far as an Anlage, they were to see and hear only later {from the Atlantic age on}. -*

*Aber niedere Tiere der damaligen Zeit hatten sich von dem Monde her Gestalten übrig behalten, die sie in gewisser Weise schon eher benutzen konnten als die Menschen ihre Leiber. Und darin verkörperten sich zunächst auf der Erde tatsächlich jene Wesen, die vom Monde herübergekommen waren*

*But low animals of the time {Lemuris beginning} had kept from the {OLD} Moon gestalten they could use in certain ways earlier than humans could use their {physical} bodies. That is how there incorporated on {during} Earth beings that had come over {chronologically} from the {OLD}*

*und die noch nicht so weit waren, um mit der Sonne mitzugehen, die aber weiter waren als die Menschen. Sie verkörperten sich in Gestalten, die jetzt längst untergegangen sind, in Wesen, die sie fähig machten, hinauszusehen in die physische Umgebung. Es beseelten, durchgeistigten diese Wesen, die zwischen Menschen und Göttern stehend waren, solche niederen Gestalten, denn die höheren menschlichen Leiber waren noch zu ungeschickt, wie ja auch ein Kind viel ungeschickter ist als ein junges Huhn, wenn es geboren wird. Diese niederen Wesen waren Drachen oder Schlangen, die dazumal provisorisch bewohnt wurden von diesen zwischen den Göttern und den Menschen stehenden Wesen. Diese Gestalten waren innig verwandt dem, was im Menschen zur Erde gehört ; nichts hatten sie von dem, was im Menschen lebte von dem zur Sonne gerichteten Teil. -*

*Aber etwas hatten sie den Menschen voraus, die noch im dumpfen Bilderbewusstsein lebten : Sie konnten die physischen Gegenstände, die auf der Erde waren, schon wahrnehmen. “ (R.Steiner 101:113 f, VI : 11/13/1907).*

*Moon since they had not advanced enough to go with the Sun. Still they were more advanced than man. They incorporated into {lower} gestalten that perished long ago : into beings {living on Earth} that made them capable to see their physical surrounding. Those beings {coming from OLD MOON and} standing between the gods and man, gave soul and spiritual faculties to such low {animal} gestalten because the higher human bodies {higher than such low gestalten} were too unskillful still, the same as a child when born is much more unskillful than a hatchling. These low beings were dragons or snakes provisionally occupied by these beings standing between the gods and man. These gestalten were closely related to what in man belongs to the Earth. They did not have anything of what lives in man as his part directed to the Sun {namely human endeavor}.*

*But they did have a head start on man who still lived in muffled image consciousness : They were already able to perceive physical objects on Earth.*

Any image consciousness presumes functioning eyes. Without them there can only be a consciousness that is not expressed in images. The intermediate beings could see through the eyes of "dragons or snakes", while *man evolving* evidently could not. Steiner probably means a consciousness of soul impressions which we can only visualize as images because we can see.

**Ediacaran** [?635? - 538.8 million years ago, duration ?96? million years] : Cadomian orogeny [up to the Cambrian, at the northern rim of Gondwana].

*"The Ediacaran organisms were single entities in some way but they could not exist independently - just as the red and white blood cells cannot. (...) According to fossils the Ediacaran fauna consisted of huge unicellular organisms on the one hand, and of multicellular organisms already on the other (...). Those of the multicellular Ediacaran organisms that left fossils (...) separated from man emerging, who was without an 'I' so far, at the beginning of 'no-snowball-Earth'." (Delor 7:401 f).*

*Man evolving* was a nutrition swirler (Delor 7:7) : swirling nutrition into himself through the bare intestinal front opening. He needed not bite, and he could not. Steiner sees the nutrition situation even more drastically :

*„Denn im Paradiese sein heißt nichts anderes, als ein geistiges Wesen zu sein und nicht nötig zu haben, physische Nahrungsmittel aufzunehmen und sie in sich zu verarbeiten. “ (R.Steiner 134:56 , III : 12/29/1911).*

*For staying in paradise does not mean anything but being a spiritual being, not in need of taking up physical nutrition nor digesting it.*

## The Fourth Eon

is the PHANEROZOIC = Eon of «visible life» [538.8 million years up to today].

It is named «visible life» because hard shell fossils are documented. «Fossilis» means «dug out». - On the other hand, during «The 7<sup>th</sup> Hyperborean epoch» already, as early as the Archean [?4,000 – 2,500? million years ago] , unicellular organisms were indirectly verified at their residuals in rocks, see the subsection «Which Are the Rocks Hyperborean Life Forms Are Discovered In ?».

The PHANEROZOIC is initiated by the

PALEOZOIC = era of «ancient life» [538.8 – 251.9 million years ago, duration 287 million years].

Now we can follow up individual lives. We are ready for the diagram below which shows the times when quite a number of plant and animal species died out, because this can be found out with hard shell fossils. The diagram below does not show the earliest mass extinction, that of anaerobes at the end of the Proterozoic [ $> 538.8$  million years ago], because they did not leave such fossils behind. In this book the mass extinction of anaerobes will be counted as the first one.

An explanatory note to Fig. D.5.5. first, and for ongoing orientation in paleogeologic nomenclature :

'x-axis in million years, counting backwards from almost nowadays. y-axis : % of existing species at the time.

Often there are «the big five» mass extinctions mentioned. Fig. D.5.5. shows seven. Other authors {and this book, too, when *Lemuris* meets *Atlantis*} count the mass extinction of dinosaurs as the last one when the **Cretaceous** meets the **Paleogene** [the MESOZOIC meeting the CENOZOIC].

The abbreviations in the head line of Fig. D.5.5. :

PALEOZOIC : **Cm** Cambrian, **O** Ordovician, **S** Silurian, **D** Devonian, **C** Carboniferous, **P** Permian ;  
 MESOZOIC «animals of the {Earth's} intermediate era» [251.9 – 66 Ma] : **Tr** Triassic, **J** Jurassic, **K** = Cretaceous ;  
 CENOZOIC «animals of the {Earth's} new era» [66 million years ago up to today] : **Pg** Paleogene «old stock» [66 – 23.03 million years ago] [= Old Tertiary] , and **N** Neogene «new stock» [23.03 – 2.588 million years ago] [= New Tertiary]. - The 3<sup>rd</sup> part of the Cenozoic, **Quaternary** [2.588 million years ago up to today], is not included in the diagram below. It is a period without any mass extinction. So far.

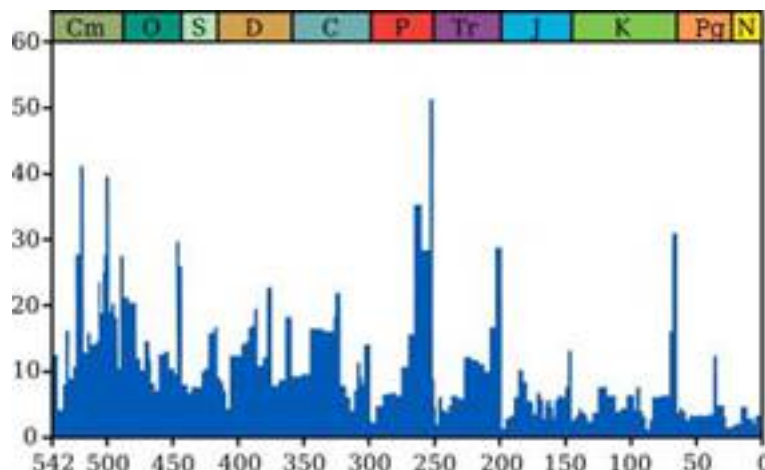


Fig. D.5.5. Mass extinctions [Wikipedia.de].

**Early Lemuris.**

(538.8 - 298.9 million years ago, duration 240 million years.)

Once more an overview first, an excerpt from Tab. D.5.2. and D.5.6.a :

		<i>Lemurian age</i>	<i>?720? - 66 Ma</i>
<b>PHANEROZOIC = eon of «visible animals» [fossils] :</b>			<b>538.8 Ma up to today</b>
Paleozoic = era of «ancient life»			538.8 – 251.9 Ma
		<i>early Lemuris</i>	538.8 - 298.9 Ma
	Cambrian		538.8 – 485.4 Ma
	Ordovician		485.4 – 443.4 Ma
	Silurian		443.4 - 419.2 Ma
	Devonian		419.2 – 358.9 Ma
	Carboniferous		358.9 – 298.9 Ma

Ma = million years ago

Tab. D.5.6.c. Early Lemuris.

Early Lemuris :

The Sun having separated shone from the outside on the Earth's equator / *warmth pole*.

*"Since the Hyperborean age the life forces from the Sun powers will have built up before all on the Earth's side facing sunward. So there originated the cohering continental Earth crust on just a third of the Earth, producing strata of granite and gneiss. On the other two thirds the basalt stratum remained liquid and soft up to the end of the Paleozoic. "* (Bosse 2012, pg 73).

The above quotation requires a constant warmth pole and a corresponding cold pole instead of an equatorial ring which would have resulted in two cold poles. With two cold poles containing minimal centrifugal forces the Moon could not have been ejected from the Earth by sheer Earth rotation, see in vol. I , part 1 , chapter C.2 «Earth Rotation from the Torque of Colliding Particles». The only way to have just one warmth and one cold pole, is to keep the Earth's axis pointing to the Sun, turning its longitudinal axis lengthwise once in the course of a year. Indeed some Earth rotation must have existed from the very beginning of life on Earth to enable the Earth's magnetism - see in vol. I , part 1 , chapter C.3 «Earth Magnetism» - , avoiding the Sun's glaring high power radiation shining on the Earth's surface, which would have disabled life originating. - The alternative preferred by the sciences, namely the Sun shining on the equator as on a ring, could not have arrived at a cold pole from whose still soft rocks the Moon might have been ejected from the Earth purely by centrifugal forces in a process over eons.

Continents may arise, to mention just one reason, by any life raining down from the life sphere, especially where the Sun radiation enhances living beings' development : around the equatorial ring or the *warmth pole*.

*„Aus dem feuerflüssigen Zustande der Erde gliederten sich dann inselartige Gebilde heraus, und die Wesen darauf haben eine entfernte Ähnlichkeit mit unseren heutigen Tieren und Pflanzen.*

*From the Earth's fire-liquid state there consolidated island-like shapes, and the living beings on them resembled today's animals and plants to some minimal degree.*

Plants before all :

*(...) und wir haben in der ältesten Lemurischen Zeit die mächtigen schwimmenden, an unsere heutigen Algen erinnernden Pflanzenbildungen, die nicht im Boden eingewurzelt waren - ein solcher Boden war überhaupt noch nicht da -, die in diesem flüssigen Eiweiß, aus dem sie ihre eigene Substanz herausbildeten, mit der sie sich durchdrangen, die in diesem flüssigen Eiweiß drinnen schwammen - aber nicht nur schwammen, sondern die Sache war so, dass sie aufglänzten, möchte ich sagen, aufleuchteten, dann wieder vergingen, wieder da waren, wieder vergingen. Sie waren wandelbar ; wandelbar bis zu dem Grade, dass sie entstanden und verschwanden.*

*(...) and at the earliest Lemurian age we have huge swimming plant amalgamations reminding of today's algae. They were not rooted to the ground - there was not any ground yet. They swam in this liquid protein which they built their own substance from - but not just swimming but shining up, gleaming up I may say, then dissolving, reappearing, vanishing again. They could change ; change to the degree that they came up and disappeared.*

den. “ (R.Steiner 232:76 , V : 12/1/1923). *appeared.*

Earliest chalk fossils :

*"We are speaking of the Paleozoic <sup>1</sup> from when the animal world appeared first, to be found with fossils of hard-shelled outside skeletons. They were mainly small animals living near the ground in calm sinks and developing in the lower vol. I , part of the air-~~{gas}~~-water-sphere. They appeared in completely finished, individualized forms and distinct species. We can understand this from the fact that the preliminary forms had already developed and differentiated with soft bodies in the life sphere. The animals' outside skeletons are predominantly shaped spherically (...)." (Bosse 2012, pg 101 f).*

<sup>1</sup> [538.8 - 251.9 million years ago]

This finding does not go conform with the biblical days of creation as Delor puts them. In the genesis animals living in the air or water respectively originated on the 5<sup>th</sup> day of creation, and terrestrial animals on the 6<sup>th</sup>. According to Delor, whose classification we are following here, this was ~ 300 - 250 million years ago, during *middle Lemuris* [298.9 – 251.9 million years ago], see Tab. D.5.2. On the other hand Bosse speaks clearly of the Paleozoic beginning [from 538.8 million years ago on].

*Man evolving* however was the last creature to sink down to the ground which hardens very gradually.

*„Der Mensch selber aber wohnte während der ersten Hälfte des Lemurischen Zeitalters nicht unmittelbar auf der Erde, sondern in der Sphäre über der Erde in einer dünnen, feinen Leiblichkeit ; geistigere Menschen waren das. Es hatte der Mensch im Anfang des Lemurischen Zeitalters noch nicht die spätere Körperlichkeit und nahm nicht die festere Art Nahrung zu sich. Ja, selbst noch am Ende der Lemuria würden Sie die Formen des Menschenleibes, der schon am dichtesten in der Substanz geworden war, nicht mit den heutigen Knochen behaftet finden. Die Substanz, aus welcher der physische Menschenleib bestand, war noch weich, gallertartig, so dass sie sich äußerlich kaum von der übrigen Substanz unterschied. Diejenigen Seelen, die zu früh auf die Erde heruntergestiegen waren, die nahmen in ihren Leibern diese Art von dichter Erdensubstanz auf. Es lebten dann die Menschen, die am wenigsten geistig waren, schon auf der Erde, die anderen noch über der Erde.“ (R.Steiner 109/111:234 f , 6/10/1909).*

*During the first half {~ > 300 million years ago} of the Lemurian age (?720? - 66 million years ago) man {evolving} did not live directly on the ground but in the {life-} sphere above the ground in a thin, fine corporeality ; man was rather more spiritual then. In the beginning of the Lemurian age [< ?720? million years ago] man did not have the corporeality yet he had later on, and he did not take up the more concrete kind of nutrition. Even at the end of Lemuria [> 66 million years ago] you would not have found the forms of the human body shaped by bones like today although his substance had become most dense already. The substance man consisted of was still soft, like jelly, so that it differed hardly from the substance around. The souls that had descended on Earth too early, took up this kind of denser Earth substance. Then people that were the least spiritual, lived on the ground already, and the others still high up.*

*Man emerging* occupied animal bodies lacking an 'I'.

*„Wenn man die Akasha-Chronik verfolgt, so zeigt sich allerdings, dass in der ersten Lemurischen Zeit der spätere physische Mensch durch sein doppeltes Geschlecht ein ganz anderes Wesen war, als das ist, was man heute als Mensch bezeichnet. Er konnte keine sinnlichen Wahrnehmungen mit Gedanken verbinden : Er dachte nicht. Sein Leben war ein triebartiges. Seine Seele äußerte sich lediglich*

*Observing the Akasha chronic we see that during early Lemuris [538.8 - 298.9 million years ago] man evolving physically {materially} later on, was a totally different being than what we are calling man today because he contains both sexes. He could not combine sense perceptions with thoughts : He did not think. His life was driven by drives. His soul*

## D.5. During EARTH : Details

*in Instinkten, Begierden, animalischen Wünschen und so weiter. Sein Bewusstsein war ein traumartiges ; er lebte in Dumpfheit. (...) -*

*(...) beim damaligen Zustande der Erdentwicklung konnte kein männlicher oder weiblicher Menschenleib hervorgebracht werden. Dazu fehlten noch die äußeren Bedingungen. “ (R.Steiner 11:79 , V).*

*expressed itself just by instincts, cravings, animal wishes and so on. His consciousness was like in a dream ; he lived in dullness. (...) -*

*(...) at that state of the Earth's development creating a male or female human body could not have been possible. There were not suitable outer conditions {the Earth's consistency} yet.*

What was different in *man* evolving then from today's, was his way of perceiving.

*„Als der Mensch seine Laufbahn als Erdenbürger angetreten hat, hatte er noch keine Augen zum Sehen, und er hätte sich auch nicht solcher Ohren bedienen können wie heute, um die Außenwelt sinnlich wahrzunehmen, obwohl alles in der Anlage vorhanden war.*

*When man began his career as a citizen on Earth he still did not have eyes to see, and he could not have used ears like today's either to perceive the world outside although everything was there as an Anlage.*

Evidently the same as with a baby.

*Solche physischen Formen und Farben, wie sie heute durch die Sinne erlebt werden, erlebte der damalige Mensch nicht ; sein Bewusstsein war ein Bilderbewusstsein, durch das vor allem geistige Zustände wahrgenommen wurden. Gewiss, es konnten in der Umgebung eines Menschen auch Gegenstände sein ähnlich wie eine Rose. Wenn sich der Mensch diesen Gegenständen genähert hat, nahm er nicht die rote Farbe wahr, nicht diese Formen, nicht diese grünen Blätter, alles das nicht in dieser Weise. Aber wenn er sich dem Gegenstand näherte, stieg in ihm ein Bild auf, das ihm zunächst an dieser Stelle, wo jetzt das Grün ist, ein rotes Gebilde zeigte, und wo jetzt das Rot ist, ein grünlich-bläuliches Gebilde ; es zeigte sich in Farben, die überhaupt in der physischen Welt so nicht vorkommen, sondern die nur ausdrückten, dass es sich hier um ein Gebilde handelte, das dem Menschen seelisch-geistig sympathisch war. Näherte sich der Mensch zum Beispiel einem ihm gut gesinnten Wesen aus der Tierwelt, so stiegen gewisse Farben vor ihm auf, die die Sympathie ausdrückten, die das Tier für ihn hatte. Näherte er sich einem Tier, das ihn fressen wollte, so drückte sich das wieder in einem anderen Farbengebilde aus.*

*Man could not perceive physical forms and colors by the senses as we can. His consciousness was an image-consciousness whereby he perceived spiritual states before all. Sure enough there might have been objects around him, e.g. similar to a rose. When man approached such objects he did not perceive the color, nor the form, nor those green leaves. This was not how he perceived. But when he approached the object there arose in him an image that showed him a red shape at the place where there is green today, and a greenish-blueish shape where there is red now. It showed in colors that do not exist in the physical world. They just expressed that this shape was spiritually sympathetic to him. If for instance he approached a well-meaning being of the animal world, there came up colors expressing sympathy the animal had for him. If he approached an animal that wished to devour him, this expressed itself in a shape colored differently.*

This must be a kind of perception with higher mammals today, with wild ones before all. - The quotation continues :

*Nun denken Sie sich einmal, dass damals der Mensch selber keineswegs imstande war, seine eigene Körperlichkeit zu sehen, denn die gehört*

*Now let us presume that man of the time was not able at all to see his own corporeality because it is part*

## D.5. During EARTH : Details

*auch zu alle dem, wozu man sinnliche Instrumente braucht, um sie wahrzunehmen. Der Mensch konnte seine Seele selber sehen ; er sah die aus ihr herausflutenden Farben. Was heute der Seher sieht, konnte er sehen in einem ursprünglichen, dumpfen, dämmerhaften Hellseherbewusstsein. Aber davon war keine Rede, dass er hätte seine eigenen Körperformen sehen können, die waren ihm vollständig verschlossen.“ (R.Steiner 101:105 f, VI : 11/13/1907).*

*of everything he needed sense instruments for to perceive. Man could see his own soul ; he saw the colors flowing from the soul. He could see in a primordial, dull, gloomy clairvoyant consciousness what the clairvoyant sees {more clearly} today. But no way he could have seen his own bodily shape ; it remained totally unknowable to him.*

Some last rest of feeling one's surrounding in such a way, is what we can sense still : We may turn around without any purpose - well, and there is somebody looking. We did not know but sensed it unconsciously. - Blind people can sense a wall they are approaching inadvertently. - The same with touch, the most primordial sense : We still can feel the other's intention when being touched.

**Cambrian** [538.8 – 485.4 million years ago] :

- At the beginning of the Cambrian : 2<sup>nd</sup> mass extinction {after the mass extinction of anaerobes from the Cryogenian on [? 720 - 635? million years ago]}, caused by ? : Cadomian orogeny, which began in the Ediacaran.
- Cambrian explosion : There develop almost all the animal strains still existing today, but just in the oceans {in the life sphere ?} : hard-shelled outside fossils.
- Primordial eyes : photoreceptor cells in Trilobites, a kind of arthropods.
- ~ 530 million years ago earliest vertebrates.
- ~ 520 million years ago conodonts [with hard parts at the head end alike to teeth], categorized among chordates or even vertebrates
- *The Sun releases Venus (Delor 7:358).*
- End : 3<sup>rd</sup> mass extinction, of ~ 80 % (Delor 7:346) of all species {shown differently in Fig. D.5.5.}.

*"(...) explosion of higher life : Excepting higher vertebrates all of today's animal species appear - according to their fossils - all of a sudden. With these organisms there are already hard parts (outside skeletons). It is still an open question how hard they really were. Even a spider of today, freshly flayed and still extremely soft, would probably be very hard compared to those Cambrian organisms. - (...)*

*In spite of the softness these organisms already leave fossils behind - because the surrounding mass is softer still, both hardening together such as insects included in amber." (Delor 7:360).*

*"All these {animal} species existed a long, long time before, but so soft then that nothing had been preserved. A long time ago they had separated from man's ancestors (lacking an 'I')." (Delor 7:361).*

### The So-Called Third Day of Creation

~ from the Ordovician up to ~ the middle of the Devonian (Delor 7:176, 311), *Human 'I's developing to earliest germs of consciousness souls (Delor 7:180, 326).*

**Ordovician** [485.4 – 443.4 million years ago] :

- *1<sup>st</sup> step of the division of air and water : very first wobbly ground begins settling down {from the life sphere = foggy atmosphere} (for Delor 7:112 during the Silurian).*
  - ~ 480 million years ago earliest insects [Willmann 2021].
  - ~ 470 million years ago earliest plants on the ground.
  - *The Sun releases Mercury (Delor 7:358).*
  - *2<sup>nd</sup> lemurian glaciation (Delor 7:346 : hardening) after "not-snowball-Earth" (Delor 6:108). →*
- End : 4<sup>th</sup> mass extinction, of ~ 60 % (Delor 7:345) of species {shown differently in Fig. D.5.5.}.

## D.5. During EARTH : Details

**Silurian** [443.4 – 419.2 million years ago] :

- Sea scorpions, fish without jawbones, Placodermi [a class of extinct fishes with an armor of large bony plates and primitive jaw structures [Meriam-Webster 10/24]] ; *earliest genuine fish* (Delor 7:6) : multifold marine reef communities.
- ~ 430 million years ago earliest vascular plants provided for themselves in fascicles with water and nutritional substances [Wikipedia.de].

*"Plants settling on the ground during the Silurian means of course seaweed-like stalk plants taking 'roots' in the wobbly muddy ground (...). 'Concrete ground' still is out of the question as soft as it might be. Concrete ground only appears tentatively from the middle of the Devonian [-~ 390 million years ago] ; before that the wobbly continental clods are uniformly covered by milky oceans."* (Delor 7:342).

**Devonian** [419.2 – 358.9 million years ago] :

- ~ 410 million years ago earliest bony fish ; *heyday of fish* (Delor 7:262).
- ~ 400 million years ago earliest winged insects [Willmann 2021].
- *Middle Devonian* : *earliest water pools in the continental shoal seas, not, however, in the ocean basins* : *They are still blazing hot* (Delor 6:155).
- *2<sup>nd</sup> step* (Delor 7:112) *of the division of air and water* (Delor 6:314 , 440) : *from the middle Devonian* (Delor 7:110) *to the end of the Devonian* (Delor 7:262) : *(quite wobbly) ground originating. So :*
- ~ 375 million years ago earliest amphibians / tetrapods.
- ~ 360 million years ago earliest seed-bearing plants.
- Reef communities in lime troughs [for instance in the Eifel hills and the Sauerland in Germany].

*"Just about Devonian there came up the first fish-like {species}, which had lungs, however, and developed gills only then. So the evolution of animals did not come about from the water onto the land, as Darwinism assumes, but from the life sphere into the water that had separated {from the life sphere} already."* (Bosse 2012, S. 102).

*„Äußerlich sah der Mensch in jener Zeit etwa aus wie ein sehr weichkörperiger Lindwurm – Schlange trifft nicht ganz die Wirklichkeit. Seine Genossen waren Kröten, Fische, Frösche usw., kurz, eine urtümliche Reptilien- und Amphibienwelt, deren heutige Nachkommen allerdings nicht mehr damit verglichen werden können (...). Säugetiere gab es damals noch keine.“* (R.Steiner 94:165 , X : 7/7/1906).

*Outwardly man of the time looked somewhat like a very soft-bodied lindworm – snake is not quite what it was. His company were toads, fish, frogs etc., in short a primeval world of reptiles and amphibians, although their progeny of today cannot be compared any more (...). As yet there were not any mammals.*

Steiner describes vividly how living conditions changed :

*„Wenn damals ein Mensch sich auf der Erde hätte aufstellen können, so würde er über der Oberfläche dichte Nebel-Rauch-Dampfmassen gesehen haben. Von irgendeiner Sonne hätte er nichts gesehen. Die Sonne, die weit entfernt war mit ihren Kräften, wirkte erst nach und nach so auf die Erde, dass diese Rauch-Nebelmassen sich lichteten und allmählich die Gestalt annahmen für den Erdenumkreis, die notwendig war für die Menschheitsentwicklung. Und erst nach und nach hätte ein solcher Mensch, der sozusagen von draußen sich die Entwicklung angeschaut hätte, gesehen, wie die Nebel anfangen, lichter zu werden, {und} wie die Rauchmassen dünner wurden, {und} wie sie wirklich wahrnehmbar, man möchte sagen, sichtbar wurden. Da gehen wir dem vierten Schöpfungstage entgegen, und damit*

*If a human could have been standing upright on the ground at the time {up to the end of early Lemuris} he would have seen dense masses of fog, smoke, and steam above the surface. He would not have seen anything of the Sun. The Sun with her forces was a long way from the Earth, working on the Earth just gradually so that the masses of smoke and fog dwindled by and by to the gestalt in the Earth's surrounding necessary for man's development. Such a human looking at man's development from the outside to say so would have seen the fogs dwindling, the masses of smoke thinning and becoming perceivable re-*

*nähern wir uns immer mehr dem Ereignis, das wir als die Mondabtrennung zu bezeichnen haben. So dass tatsächlich ein Mensch, der damals auf der Erde gelebt hätte, der durch die Rauch- und Dampfmassen hereindringenden Sonnenstrahlen ansichtig geworden wäre.*“ (R.Steiner 122:184 f , X : 8/25/1910). {To some extent a quotation mix with vol. I , part 1 , chapter B.5 , subsection «The So-Called 3<sup>rd</sup> Day of Creation».}

*ally and visible to say so. Then we are on the way to the 4<sup>th</sup> day of creation, approaching more and more what we need to call the Moon separation. So that a human living on Earth {then}, could really have seen the Sun rays penetrating the masses of smoke and steam.*

*"Here 'smoke' {„Rauch“ in German} is a direct transliteration of Hebrew 'ruach'. It indicates here the protein atmosphere containing Anlagen of rocks, hinting at air and water separating during the Devonian already. We should remark the following contradiction : Steiner clearly speaks of the time BEFORE the Moon separation while the bible mentions the Moon outside becoming visible together with the Sun and stars ! At any rate Steiner emphasizes in some other place of the same lecture course that the Moon separated only at the transition of the 5<sup>th</sup> to the 6<sup>th</sup> day of creation, which would seem logical after all what had been said previously."* (Delor 7:265).

Earliest breathing with lungs (Delor 6:440). Not only did the swim bladder become the lung ; it enabled a sense of posture to man, i.e. some early self-perception : *Man evolving* perceived his feeling while breathing in, felt his soul, and Him who was enabling him : God blowing His breath into him, enlivening him.

*„Ein großer Entwicklungsaugenblick war der, als er zum ersten Mal seinen Körper zum Wahrnehmen benützte. Die Bewegung des Menschen bestand in einem Schweben. In seiner Leibeshöhle besaß er ein besonderes Organ dafür, eine Art Schwimmblase. Aus dieser Schwimmblase entwickelte sich dann unter dem Einfluss der ihn umschwebenden Seele die Lunge allmählich heraus. In dem Maße, als der Mensch mit der Lunge zu atmen begann, zog seine Seele in den Körper ein. Mit der Atemluft atmete der Mensch tatsächlich seine Seele ein. Dieser Vorgang wird wiederum wörtlich richtig in der Genesis im Sechstageswerk geschildert durch den Satz : Und Gott blies dem Menschen seinen Odem ein, und er ward eine lebendige Seele.“* (R.Steiner 94:165 , X : 7/7/1906).

*There was a great moment in {evolving man's} development when he used his body for perception for the first time. Man moved afloat. There was a special organ for this inside his body, a kind of swim bladder. From this swim bladder the lungs developed by and by under the influence of the soul hovering around. As man began breathing with his lungs the soul entered his body. In fact by breathing air, man breathed his soul in. Again this is described literally correctly in the Genesis in the opus of six days {but in chapter 2, after the days of creation} : «God blew his breath into man, and he became a living soul.».*

«and the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life ; and man became a living soul.» [KJV II:7] / «und ER, Gott, bildete den Menschen, Staub vom Acker, er blies in seine Nasenlöcher Hauch des Lebens, und der Mensch wurde zum lebenden Wesen.» [Buber & Rosenzweig I:13].

The Bible does not yet distinguish lung breathing from breathing the life and the soul into man. Neither does Steiner, but so do Bosse and Delor (Delor 6:440 f) considering the long chains of development.

### The So-Called Fourth Day of Creation

~ 2<sup>nd</sup> half of the Devonian to ~ 1<sup>st</sup> half of the Carboniferous (Delor 7:176). Human 'I's originated as far as *astral bodies* (Delor 7:180).

**Carboniferous** [358.9 – 298.9 million years ago] :

- Karoo ice age [~ 360 - 255 million years ago] beginning.
- ~ 310 million years ago earliest amniotes [animals with a navel], embryos in eggs so that procreation becomes possible without water.

## D.5. During EARTH : Details

- Middle of the Carboniferous : *3rd step of the separation of the watery from air / gas (Delor 7:112) : Transition from amphibia to reptiles (Delor 6:421). Giant dragonflies (Delor 7:199).*
  - Woods of ferns, horsetails, and lycopodium (*Delor 7:199*), having become hard coal up to our days.
- End : a long lasting extinction {but low-threshold in Fig. D.5.5.}.

*"During the Carboniferous the plant leaves testify a world-wide common, humid-warm climate with an atmosphere saturated with water. In places, however, the atmosphere was rather gaseous for there were lycopodium seeds, for example, spores and pollen as well as (...) large dragonflies. Wood did not contain tree rings or sleeping buds yet, i.e. seasons did not change as they do today."* (Bosse 2012, S. 102).

### Homo sapiens' 12 Primordial Peoples

According to anthroposophy (*Delor 5a:76–108 e.g.*) homo sapiens did not develop via selection out of joint ancestors, but incarnated directly from the *spiritual worlds* helped by *spiritual beings*. Contemporary *clairvoyant* cognition describes 12 incarnations of homo sapiens in different epochs and with different characteristics. Steiner would probably have spoken of races but nowadays this word is frowned upon. In this book we shall call them primordial peoples as did Delor.

To every primordial people there are corresponding sagas and myths in cultures near and afar (*partially retold in everyone of Delor's books*). Every primordial people has an 'Adam' of its own, and some of them, e.g. the earliest three of them, had the same spiritual leader at different times : Odin (*Delor 7:234 f.*). Every time a primordial people incarnated, there were catastrophes on earth, which, however, did not have to happen in the same site since the Earth is a living being (*Delor 7:235*).

The earliest primordial people incarnated in the Carboniferous [358.9 - 298.9 million years ago] (*Delor 7:112*), the latest at the end of the Eocene [~ 33.9 million years ago] (*Delor 5a:98 , and 5b:182*). They incarnated spread out all over the world, they have been migrating all over up to today, and mixing. Anthroposophy is following up the migrations during *Lemuris* and *Atlantis*. Only when coming to the *Post-Atlantean age* does anthroposophic contemporary *clairvoyant* interest shift away from these mass migrations.

These migrations are interesting for us because almost all the primordial peoples touched *Lemuris* and *Atlantis* - now the corresponding continents are indicated - , gathering on them, and dissipating. They are vividly dealing with each other, through each other, within each other and against each other. *Clairvoyant* visualizations, e.g., provide hints about these two continents whose existence is disputed by the sciences. - At the end of vol. I , part 4 , chapter I.5 shows in form of a table how primordial peoples met, and chapter I.6 the same in form of keywords.

Only the earliest three primordial peoples incarnated earlier than the *Moon separation* - each of them in just a few individuals. This is important because man begins developing an 'I' after the *Moon separation* only, as we shall see later on. Did the earliest three primordial peoples incarnate without an 'I'-precursor ? So were they animals or human precursors ? Without an 'I'-precursor we ought to think of them as animals notwithstanding they developed to become human. Only after the *Moon separation* did Jahve's breath give them 'I'-precursors.

*"A 'pioneering group' of 'I'-humans - the earliest three primordial peoples, at least some individuals among them - came down earlier than the Moon separation. Apart from very few 'Sun people' (the principle couple) most of them could not persist in 'woody' bodies - which were so 'thin' in spite of being 'woody' that we could not have seen them with today's eyes. They had to retreat to the planets {they had lived on before incarnating on Earth} after a few primary incarnations. It was only after the densification forces had left {the Earth} together with the Moon that man could by and by descend again incarnating. This process wore on until Atlantis."* (Delor 7:219).

The following pages will mention the Zodiac constellation when every primordial people incarnated. At both equinoxes, on 3/21 and 9/21, the Sun rises in front of a Zodiac constellation. During *Lemuris* the Zodiac constellation of September 21<sup>st</sup> is taken, the one of March 21<sup>st</sup> from *Atlantis* on. The Zodiac constellation is to indicate *spiritual beings* that lead our destinies. We suppose them «behind» the corresponding Zodiac constellations. They are meant to convey characteristics of the primordial people in question.

We ought not to forget however : Knowing about the effects conveyed by Zodiac constellations, is a cultural problem. The Chinese, e.g., have different Zodiac constellations. Ours originated by and by during early Mesopotamian cultures. That was during the early part of the 3<sup>rd</sup> cultural epoch (2907 - 747 BCE)

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of the present *Post-Atlantic age* (11.7 thousand years ago up to the future), just some two thousand years BCE. In the same way stressing the equinoxes as key dates and sunrise as a criterion are culturally induced : man-made first of all. In the third place characteristics of Zodiac constellations can only be attributed in the same way as horoscopes : equivocal, variable. - All this, of course, does not contradict the suggestion that *clairvoyant* initiates executed the will of *spiritual beings*. Still it is the same as with all of our cognitions into the *spiritual* : Never do we obtain unequivocal, unchangeable, eternally consistent answers.

So the following items concerning primordial peoples are to relate contemporary *clairvoyant* cognitions without claiming an invariable statement or just a rational explanation.

The 1<sup>st</sup> primordial people (*Libra* (Delor 7:236)) incarnates (Delor 7:112) in **western Siberia** as Cushite precursors (Delor 7:237, 240).

### The So-Called Fifth Day of Creation

~ 2<sup>nd</sup> half of the Carboniferous + 1st half of the Permian (Delor 7:172, 176, 182). Human 'I's originate as far as *ether bodies* (Delor 7:180).

The 2<sup>nd</sup> primordial people (*Scorpion*) incarnates at the transition of the Carboniferous to the Permian in **north America** as *Ainu* precursors (Delor 7:240) : Just 3 % incarnate, the rest is transported {again back ?} to *Neptune* and *Uranus* (Delor 7:225).

At the end of *early Lemuris* there are not any concrete bodies yet.

*„Die Zeiten, in die wir nunmehr zurückblicken, liegen etwas vor der Mitte der Epoche, die in den vorhergehenden Abschnitten als die Lemurische bezeichnet worden ist. Der Menschenleib bestand da noch aus weichen bildsamen Stoffen. Es waren auch die übrigen Bildungen der Erde noch weich und bildsam. Gegenüber ihren späteren verfestigten war die Erde noch in einem quellenden, flüssigen Zustande. Indem die Menschenseele damals sich im Stoffe verkörperte, konnte sie sich diesen Stoff in einem viel höheren Grade anpassen als später.“* (R.Steiner 11:74, V).

*When looking back now we are coming to the time slightly before the middle [ ~ 270 million years ago, see below] of what had been called the Lemurian epoch {age} in the paragraphs before. Then the human body still consisted of soft pliable substances. The other creations on Earth were still soft and pliable as well. Compared to her rigidified state later on, the Earth was still in a welling, liquid state. As the human soul incorporated in substance it could adapt to this {the Earth's} substance much better than later on.*

### *Middle Lemuris.*

*Duration 47 million years.*

Once again an overview first, a corresponding excerpt of Tab. D.5.2. :

		<i>Lemurian age</i>	<i>?720? - 66 Ma</i>
<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :			538.8 Ma up to today
Paleozoic = era of «ancient life»			538.8 – 251.9 Ma
	Permian	= ~ middle <i>Lemuris</i>	298.9 – 251.9 Ma

Ma = million years ago

*Tab. D.5.6.d. Middle Lemuris.*

During this time the Moon completed her separation. This enabled man to boost developing.

*„Dann kam das andere wesentliche Ereignis<sup>1</sup>, (...). Der Hinausgang des Mondes aus der*

*Then came the other essential occurrence {after the Sun separation}, (...). The*

*Erde fand statt.* " (R.Steiner 122:177 f, X : 8-25-1910).

*Moon separated from the Earth.*

We should not think the time span of the *middle* of *Lemuris* was about the mathematical middle of *Lemuris*. Instead it was the Permian more or less.

**Permian** [298.9 – 252.2 million years ago] :

- **Pangea** was complete. *It was peopled by a manifold fauna, and overgrown by woods whose fossils are to be found in seams of hard coal today.*
- Earliest flowering plants, hermaphroditic.
- Arthropoda «joint footed» [limb footed] developing gigantic sizes in the oxygen-enriched atmosphere of the Carboniferous.
- «Reptiles akin to mammals».
- *3<sup>rd</sup> lemurian glaciation / hardening (Delor 7:447 : hardening) after "not-snowball-Earth" (Delor 6:108) →*
- Middle : Glaciation → 5<sup>th</sup> mass extinction.
- End : Glaciation → 6<sup>th</sup> mass extinction, the most severe : 75 – 90 % of animal species perishing {different counting in Fig. D.5.5.}.
- The lower life sphere continued cooling down, condensing water vapor, rain came up. Water began filling up the swales. It was there that life akin to primordial plants originated *from spiritual man evolving* helped by light, hot gases and water. By and by the ground superimposed on earlier soil layers.

„There were Growth stripes on conifers just from the Permian on.“ (Bosse 2012, S. 102).

During the early Permian, i.e. still before the Moon separation was completed, there incarnates

*The 3<sup>rd</sup> primordial people (Sagittarius) = Negritos, incarnating at the beginning of the Permian in the area of today's Japan (Delor 5a:92 , D7:221 , 240), just 1 % staying on Earth, the rest is transported {back again ?} to Venus (Delor 5a:98).*

### Exit Moon

According to anthroposophy the *Moon* completed *separating* a great deal later than paleogeology claims : in paleogeology ~ ?4.527? billion years ago , while anthroposophy sees it completed as late as during the Permian {~ 270 million years ago} (Bosse 2012, S. 104 ; Delor 6:138 , 199 , 213). Bosse (2012, S. 105 f) indicates that the Moon separated from the still softer ground on the Earth's side averted from the sun, i.e. about the cold pole. Since the Earth must have rotated around its longitudinal axis from the very beginning - see in vol. I , part 1 the end of chapter C.2 «Earth Rotation from the Torque of Colliding Particles», and in the present chapter, section «The 7<sup>th</sup> Hyperborean Epoch» the subsection «The Sun Separating» - , we cannot but think the Earth's longitudinal axis more directed towards the Sun than nowadays, and the Moon leaving the Earth on the other end of the longitudinal axis, away from the sunshine. Since then the Earth's longitudinal axis ought to have moved either with the Earth's body or within it.

Contemporary *clairvoyant* visualizations (Delor 7:9–12) hint at the following picture : the Moon began separating already shortly after the *Sun separation* [up to ~ 538.8 million years ago] - according to D. Bosse as early as during the Archaic [> ? 2.5? billion years ago] already (Bosse however includes the Hadaic into the Archaic, which then began ?4,570? million years ago already, in line with Moon rock datings). Then the *Moon separation* dragged out during almost all the Paleozoic [538.8 - 251.9 million years ago] completing about the middle {~ 270 million years ago} of the Permian [- 298.9 – 251.9 million years ago]. The Moon was pulled out of the Earth's soft rocks near her cold pole against gravity by ether forces of its own, i.e. by inherent centripetal life forces.

Shortly after this time, about the transition from the Permian to the Triassic [251.9 - 201.3 million years ago], the most radical mass extinction occurred, see Fig. D.5.5. This most impinging mass extinction in the world cannot be taken as proof of the *Moon separation* from the Earth but the coincidence makes us authors think.

During the **late Permian** the earliest ones of today's continents formed out of disintegrating Pangea, and *the 4<sup>th</sup> primordial people (Capricorn) incarnated in north America as Papua precursors (Delor 7:240).*

Geology of *middle Lemuris* :

„Diese Epoche der mittleren Lemuris war überhaupt eine Zeit der größten Einschnitte, wo man schon im 19. Jahrhundert die Grenze zwischen dem Erdaltertum und Erdmittel-

*This epoch of middle Lemuris was the time of the most incisive cuts. In the 19<sup>th</sup> century already this was where the line [251.9 million years ago] was drawn between*

*alter gezogen hatte. Der Großkontinent mit seiner Granit-Gneis-Kruste war weitgehend fertig verhärtet und kristallisiert. Die Granitschicht darunter war bis dahin noch eine flüssige, weiche Masse, die bei Gebirgsbildungen immer wieder in die Gneise eindrang, besonders während der variszischen Gebirgsbildung im Devon / Karbon in vielen kontinentalen Gebieten. An der Folge der granitischen Teilintrusionen kann abgelesen werden, wie dabei die Granitschicht in der Tiefe von oben nach unten immer weiter erstarrt ist. Nur in den Geosynklinalen an den Bruchzonen des zerbrechenden Großkontinentes konnten noch Granite bis in das Tertiär hinein nach oben aufdringen {\*}. Auch die primären Substanzniederschläge aus der Lebenssphäre erfolgten nur noch in den Geosynklinalgebieten. Auf dem Kontinent endeten sie weitgehend mit den Salzablagerungen des Perm. Der jetzige Salzgehalt der Ozeane zeigt noch, dass die Lebenssphäre vielleicht als Ganzes eine höhere Salinität hatte als das heutige Meerwasser, (...).“ (Bosse 2012, pg 103 f).*

*the Paleozoic [538.8 - 251.9 million years ago] and the Mesozoic [251.9 - 66 million years ago]. The super-continent [Laurasia + Gondwana → Pangea, see Fig. D.5.1. to D.5.3.] with its crust of granite and gneiss {at its warmth pole} was largely densified and crystallized. Up to then the granite layer underneath was still a liquid, soft mass entering into the gneisses whenever mountains formed, especially so during the Variscan <sup>1</sup>orogeny (...) in quite a many continental areas. The sequence of partial granite intrusions shows how the deep granite layer solidified again and again from above to below {\*}. Just in the geosynclines [giant downward folds in the Earth's crust, preceding the climax phase of orogenic deformation] at the fracture zones of the disintegrating super-continent [Pangea] granites were found to press upwards as late as the Tertiary [Paleogene + Neogene, 66 – 23 – 2.588 million years ago] {\*}. The primary substances tumbled down from the life sphere just in the areas of geosynclines. On the continent they ended mostly with salt deposits during the Permian [298.9 – 251.9 million years ago]. Today's salt content in oceans hints that perhaps the life sphere had a higher salinity than today's ocean water, (...).*

<sup>1</sup> = collision Europe – Africa during the Devonian to the Triassic [419,2 - 201,3 million years ago] [Wikipedia.de 10/24].

{\*} : Maybe because the liquid-hot lower rock layer hindered solidification from below to above, as did advancing volcanism ?

### The So-Called Sixth Day of Creation

from the Moon separation on (*Delor 7:176 , 186*) : Human ‘I’s began incarnating : at first in warmth only, and in air-gas, too, probably at the transition from the 6<sup>th</sup> to the 7<sup>th</sup> creation day (*Delor 7:180*).

*„In der biblischen Urkunde werden wir deutlich darauf hingewiesen, wie das Wesen eines der Geister der Form einströmte in das Wesen der Menschen. Ein tiefes Geheimnis verbirgt sich hinter dem, was in der Thora steht. Denken Sie sich, dass einer der Geister der Elohim sich als Jehova mit dem Monde verbunden hat, dass er von dort aus als Geist der Form wirkte, den Menschen zu dem machte, was ihm die göttliche Form gibt : Der Gott bildete den Menschen nach seinem Bilde, er gab ihm die Gestalt der Götter.“ (R.Steiner 105:93).*

*The biblical document definitely points to the essence of one {namely Yahweh} of the spirits of form {Elohim, {2.3}} streaming into man's essence. Some deep secret hides behind what is in the Torah. Imagine that one of the Elohim spirits connected himself to the Moon as Yahweh, working from there as a spirit of form, {and} making man to what gives him the godly form : The God formed man according to His image, He gave him the {spiritual} gestalt of the gods.*

«So God created man in his own image, in the image of God created he him ; male and female created he them.» [KJV I:27] / «Gott schuf den Menschen in seinem Bilde, im Bilde Gottes schuf er ihn, männlich, weiblich schuf er ihn.» [Buber & Rosenzweig I:11].

## Bisexuality and Monosexuality

In vol. I , part 1 , chapter B.5 , subsection «After the So-Called Seventh Day of Creation» we already hinted at Steiner using a terminology concerning sexuality that is opposite to what we are using nowadays. Speaking in anthroposophic terms man consisted of just warmth *{physical {1}}* and a soul anlage as long as he is not incarnated yet. This soul anlage contained female as well as male aspects - the same as in our days, as we can feel with ambivalent feelings of our own. So the soul may be called "*bisexual*" in anthroposophy, better : 'containing both sexes'. Then Steiner calls "*monosexual*", sexually unequivocal, when both sexes can be distinguished physically. This is what developed in man evolving from the *middle* of *Lemuris* up to the middle of the Jurassic [up to ~ 175 million years ago] (*Delor 6:463 f*).

Perhaps this enticing topic will permit to deal with it extensively. Apart from that we will be led to Lucifer, and to his helpful role in man's development.

The initial situation first : up to *early Lemuris*, the 3<sup>rd</sup> creation day : Why was the soul unable to hinder two physical sexes originating although it was bent to ?

*„Denn dass die Seele einen männlichen oder weiblichen Leib annimmt, rührt davon her, dass ihr die Entwicklung der äußeren Erdenatur den einen oder den anderen aufdrängt. Solange die Stoffe noch nicht verfestigt waren, konnte die Seele diese Stoffe unter ihre eigenen Gesetze zwingen. Sie machte den Leib zu einem Abdruck ihres eigenen Wesens. Als aber der Stoff dicht geworden war, musste sich die Seele den Gesetzen fügen, welche diesem Stoffe von der äußeren Erdennatur aufgeprägt wurden. Solange die Seele noch über den Stoff herrschen konnte, gestaltete sie ihren Leib weder männlich noch weiblich, sondern gab ihm Eigenschaften, die beides zugleich waren. Denn die Seele ist männlich und weiblich zugleich. Sie trägt in sich diese beiden Naturen. Ihr männliches Element ist dem verwandt, was man Willen nennt, ihr weibliches dem, was als Vorstellung bezeichnet wird. -*

*Die äußere Erdenbildung hat dazu geführt, dass der Leib eine einseitige Bildung angenommen hat. Der männliche Leib hat eine Gestalt angenommen, die aus dem Element des Willens bestimmt ist, der weibliche hingegen trägt mehr das Gepräge der Vorstellung. So kommt es denn, dass die zweigeschlechtliche, männlich-weibliche Seele in einem eingeschlechtlichen, männlichen oder weiblichen Leib wohnt. Der Leib hatte also *{\*}* im Laufe der Entwicklung eine durch die äußeren Erdenkräfte bestimmte Form angenommen, dass es fortan der Seele nicht mehr möglich war, ihre ganze innere Kraft in diesen Leib auszugießen. Sie musste etwas von dieser ihrer Kraft in ihrem Innern behalten und konnte nur einen Teil derselben in den Leib einfließen lassen.“ (R.Steiner 11:74 f , V).*

*That the soul tends to a male or a female body, is because the Earth's outer nature *{evolution}* developing imposes one or the other *{body}*. As long as the substances had not densified yet, the soul could force these substances under its own laws. The soul imprinted its own essence into the body. When the substance had densified however the soul had to comply with what the Earth's outer nature *{evolution}* imposed on the substances. As long *{however}* as the soul had been able to govern substances it formed the body neither male nor female but gave the body characteristics containing both *{sexes}* because the soul is male and female at the same time, carrying both natures within itself. Its male element is related to what is called will power; *{and}* its female one to imagination. -*

*It was the Earth's outer development *{evolution}* that led to the *{physical}* body becoming one-sided. The male body came to a gestalt deriving from the element of will power, the female one on the other hand complies rather with the influence of imagination. That is why the bisexual - male and female - soul is living in a monosexual - male or female - body. So the *{physical}* body had taken on a shape conforming with the Earth's outer forces *{\*}* in due course of time. The soul could not pour out all its inner power into the *{physical}* body. It had to keep some part of its *{inner}* power within itself, just another part of which could flow*

*into the body.*

{\*} Which "outer forces" of the Earth ? - Meanwhile the ground densified, and the human *physical body* can make use of bisexual propagation, adapting more flexibly to changed environment circumstances over the generations.

Was there fertilization ? - Varying environmental conditions can be more easily met by plants and animals if they are bisexual and can fertilize within their species. Their next generations tend to survive more easily if their genes vary. It's not a long way to selecting physical capabilities, in other words to the survival of the fittest in definite environments. That holds for humans as well if we consider just specific environments.

Physical self-fertilization is possible only with plants. Even hermaphrodite animals can only rarely fertilize themselves. Earth worms for instance are an exception. - Furthermore there are 'right-slugs' and 'left-slugs', 'right-snails' and 'left-snails' depending on whether the male organ is on the left or the right hand side of the female one, and they cannot mix.

But :

*„Die Befruchtung war kein äußerer Vorgang, sondern etwas, was sich im Innern des Menschenleibes selbst abspielte. Dadurch, dass der Leib männlich oder weiblich wurde, verlor er diese Möglichkeit der Selbstbefruchtung. Er musste mit einem anderen Leibe zusammenwirken, um einen neuen Menschen hervorzubringen. -*

{Up to early *Lemuris*} *fertilization was not an external affair but something that occurred within the {physical} human body. As the body turned male or female {from about the middle of *Lemuris* until including the middle of the Jurassic [~ 300 – 175 million years ago]}, it lost the chance to fertilize itself {physically}. It had to cooperate with a different body to bring a new human to life. -*

Now the physically sexual separation. We remember : Sexual propagation has been found with primordial plants for a time as early as ~ 2.0? billion years ago, in the Paleo-Proterozoic «Old eon of ancient life» [?2.5 - 1.6? billion years ago]. Sexual propagation probably had evolutionary advantages from early on. The following passage of the continuing quotation goes with it :

*Die Trennung der Geschlechter tritt auf, als die Erde in einen bestimmten Zustand ihrer Verdichtung kommt. Die Dichtigkeit des Stoffes unterbindet einen Teil der Fortpflanzungskraft. Und derjenige Teil dieser Kraft, der noch wirksam ist, bedarf der Ergänzung von außen, durch die entgegengesetzte Kraft eines anderen Menschen. Die Seele aber muss sowohl im Manne, wie in der Frau einen Teil ihrer früheren Kraft in sich behalten. Sie kann diesen Teil nicht in der Außenwelt verwenden. -*

*The sexes separate {gradually} when the Earth densifies to a certain degree. part of the propagation force is impeded as substances densify. The part of this force which is still active, needs to be completed by the opposing force of another human. The soul, however, must keep part of its earlier force within itself - with man as well as with woman. It cannot use this part in the outside {physical} world. -*

*Dieser Kraftteil richtet sich nun nach dem Innern des Menschen. Er kann nicht nach außen treten, deshalb wird er für innere Organe frei. -*

*Part of this force turns to man's interior {soul}. It cannot work on the outside {of the soul, i.e. on the physical body}, so it is free for internal organs {see below : some physical organ for the soul to make use of}. -*

*Und hier tritt ein wichtiger Punkt in der Menschheitsentwicklung ein. Vorher hat das, was man Geist nennt, die Fähigkeit des Denkens, nicht im Menschen Platz finden können. Denn diese Fähigkeit hätte kein Organ gefunden, um sich zu betätigen. Die Seele hatte all ihre Kraft nach au-*

*This is where an important point of man's development comes in. In earlier times {earlier than middle *Lemuris*, > 300 million years ago} what is called spirit, {namely} the capacity of thinking, was unable to find room in man because this capacity was unable to find an {internal} organ {for the soul} to start working*

*ßen verwendet, um den Leib aufzubauen. Jetzt jedoch kann die Seelenkraft, die nach außen hin keine Verwendung findet, mit der Geisteskraft in Verbindung treten ; und durch diese Verbindung entwickeln sich die Organe im Leibe, die später den Menschen zum denkenden Wesen machen. So konnte der Mensch einen Teil der Kraft, die er früher zur Hervorbringung von seinesgleichen verwendet, zu einer Vervollkommnung seines eigenen Wesens verwenden. Die Kraft, durch die sich die Menschheit ein denkendes Gehirn formt, ist dieselbe, durch welche sich in alten Zeiten der Mensch befruchtet hat. Das Denken ist erkaufte durch die Eingeschlechtlichkeit. Indem die Menschen nicht mehr sich selbst, sondern sich gegenseitig befruchten, können sie einen Teil ihrer produktiven Kraft nach innen wenden und zu denkenden Geschöpfen werden. So stellt der männliche und der weibliche Leib je eine unvollkommene Gestaltung der Seele nach außen dar, aber sie werden dadurch in ihrem Inneren vollkommenere Geschöpfe.*

*{on}. The soul had used all its power to the outside, to build up the {physical} body {in the progeny, too}. Now, however, {from the middle of Lemuris on} the soul force unused outside can connect to the spirit's force. It is because of this connection that organs develop in the {physical} body that make man a thinking being later on {from the middle of Atlantis} {; the frontal brain, see in vol. I , part 4 Fig. H.1.3.}. So man could use a part of the force he had used to bring about offspring in earlier times {earlier than middle Lemuris} to perfect his own being. The power by which man forms a thinking brain, is the same as by which man {in animal forms} {had} fertilized {himself} in ancient times {earlier than middle Lemuris}. Thinking has been bought by monosexuality {i.e. each individual body containing just one sex, i.e. separate sexes beginning to develop in mankind}. Since people do not fertilize themselves any more, fertilizing each other instead, they can interiorize a part of their productive force and evolve thinking. So the male and the female {physical} bodies show to be an imperfect outside formation of the soul, but man is all the more perfect inside.*

"More perfect" because of thinking. With Steiner it comprises heart-thinking all the time. E.g. heart-thinking comprises care for one's partner. - Steiner does not write here of instinctive sexual conduct because he is thinking of soul demeanor. He describes an early stage of the soul i.e. when thinking is just coming up. - Now we can understand why he calls the gift of imagination the eminent characteristic of the female soul, not sensitivity nor feeling life, not even empathy. Feeling is as self-evident in Steiner's view as the heart when thinking, not worth emphasizing. Still it is worth mentioning in his eyes that the male soul predominantly deals with will and deeds, while the female soul deals with imaginations. - The quotation continues :

*Ganz langsam und allmählich vollzieht sich diese Umwandlung mit dem Menschen. Nach und nach treten neben den alten zweigeschlechtlichen Menschenformen die jüngeren eingeschlechtlichen auf. -*

*Very slowly and gradually does this {physical} change take place with {evolving} man {in animal gestalt}. By and by there arise man's younger monosexual forms aside from the old bisexual ones. -*

*Es ist wieder eine Art Befruchtung, die da im Menschen sich einstellt, als er ein Geistwesen wird. Die inneren Organe, welche durch die überschüssige Seelenkraft aufgebaut werden können, werden von dem Geiste befruchtet. Die Seele ist in sich selbst zweigliedrig : männlich-weiblich. So gestaltete sie in alten Zeiten auch ihren Leib. Später kann sie ihren Leib nur so gestalten, dass er für das Äußere mit einem anderen Leib zusammen wirkt ; sie selbst erhält dadurch die Fähigkeit, mit dem Geiste zusammenzuwirken. Für das Äußere*

*Once again it is a kind of fertilization which takes place in {evolving} man as he advances towards a spiritual being {by thinking}. The inner organs which can now be built up by excess soul powers, are fertilized by spirit. The soul is twofold in itself : male-female. That is how it had shaped the body {namely bisexual physically, too} in ancient times {earlier than middle Lemuris}. Later {about from middle Lemuris on} the soul can form the body only so far as to have the body working together with another body when concerned with parts exterior {i.e.*

wird fortan der Mensch von außen befruchtet, für das Innere von innen, durch den Geist. Man kann nun sagen, dass der männliche Geist eine weibliche Seele, der weibliche Leib eine männliche Seele hat.

Diese innere Einseitigkeit im Menschen wird durch die Befruchtung mit dem Geiste ausgeglichen. Die Einseitigkeit wird aufgehoben. Die männliche Seele im weiblichen Leibe und die weibliche Seele im männlichen Leibe werden beide wieder zweigeschlechtlich durch die Befruchtung mit dem Geist. So sind Mann und Weib in der äußeren Gestalt verschieden ; im Innern schließt sich bei beiden die seelische Einseitigkeit zu einer harmonischen Ganzheit zusammen. Im Innern verschmelzen Geist und Seele zu einer Einheit. Auf die männliche Seele im Weibe wirkt der Geist weiblich und macht sie so männlich-weiblich ; auf die weibliche Seele im Manne wirkt der Geist männlich und bildet sie so gleichfalls männlich-weiblich. Die Zweigeschlechtlichkeit des Menschen hat sich aus der Außenwelt, wo sie in der vorlemurischen Zeit vorhanden war, in das Innere des Menschen zurückgezogen. -

Man sieht, das höhere Ich des Menschen hat nichts zu tun mit Mann und Weib. Doch kommt die innere Gleichheit aus einer männlichen Seele bei der Frau, und entsprechend aus einer weiblichen beim Mann. Die Vereinigung mit dem Geiste bewirkt zuletzt die Gleichheit ; (...).“ (R.Steiner 11:76 ff , V).

*physical*). So the soul is enabled to work together with the spirit. From now on man is fertilized from the outside concerning the outer {physical} parts ; concerning the inner {i.e. soul} parts it is fertilized from the inside : by the spirit. We might as well say that the male body contains a female soul, {and} the female body a male one. Man's inner one-sidedness is balanced because the spirit fertilizes him. So this one-sidedness is revoked. The male soul in a female body, and the female soul in a male body get bisexual again {as before middle Lemuris} because the spirit fertilizes them {each}. So man and woman are {indeed} shaped differently ; internally {however} the soul's one-sidedness in both {of them} connects to a harmonious whole : Internally spirit and soul melt and are united. In woman's male soul the spirit works in a female way rendering it male-female ; in man's female soul the spirit works in a male way rendering it male-female, too. Man's bisexuality {both-sexuality} drew back into man's interior from the outside {i.e. physical} world where it had been in pre-Lemurian {?} times. -

We can see man's higher 'I' does not have anything to do with man or woman. Still they are equal internally {spiritually} because there is a male soul in a woman, and correspondingly there is a female soul in a man. When becoming one with the spirit, both {sexes} are equal in the end ; (...).

### Our Spurring Spiritual Beings

How do they influence evolving man ? - Via his sexuality as it develops. First however : What kind of beings are they ? They did not need the all too human 'fall from grace' for their development.

„Aber es gab andere Wesen, die trotz der Zweigeschlechtlichkeit Erkenntnis und Weisheit erwerben konnten. Das war dadurch möglich, dass diese eine ganz andere Entwicklung in einer noch weiter zurückliegenden Vergangenheit durchgemacht hatten. Ihrer Seele ist es möglich geworden, ohne erst die innere Organentwicklung des physischen Leibes der Menschheit abzuwarten, mit dem Geiste sich zu befruchten. Des jetzigen Menschen Seele kann nur mit Hilfe des Gehirns

There were however other beings who could gain cognition and wisdom in spite of bisexuality {both-sexuality}. That came to be possible because they had gone through a totally different development in a past still further back {than middle Lemuris, namely during OLD MOON ; or still further back ?}. Their souls had the chance to fertilize themselves with the spirit without having to wait for the inner organs to develop in man's physical body. In our days man's

*denken, was sie durch die physischen Sinne von außen empfängt. So hat es die Seelenentwicklung des Menschen mit sich gebracht. Die Menschenseele musste warten, bis ein Gehirn da war, das zum Vermittler mit dem Geiste wurde. Ohne diesen Umweg wäre diese Seele geistlos geblieben. Sie wäre auf der Stufe des traumartigen Bewusstseins stehen geblieben.*

*Anders war es bei den gekennzeichneten übermenschlichen Wesen. Ihre Seele hatte auf früheren Stufen seelische Organe entwickelt, die nichts Physisches brauchten, um mit dem Geiste in Verbindung zu kommen. Ihre Erkenntnis und Weisheit war eine übersinnlich erworbene. Man nennt eine solche Erkenntnis intuitiv. Der gegenwärtige Mensch kommt erst auf einer späteren Stufe seiner Entwicklung zu solcher Intuition, die es ihm möglich macht, ohne sinnliche Vermittlung mit dem Geiste in Berührung zu kommen. Er muss den Umweg durch die sinnliche Stofflichkeit machen. Man nennt diesen Umweg das Herabsteigen der Menschenseele in die Materie oder populär den 'Sündenfall'. -*

*Durch eine anders geartete frühere Entwicklung brauchten die übermenschlichen Naturen dieses Herabsteigen nicht mitzumachen. (...) Unmittelbar strahlte die Weisheit, nach welcher die Welt gebaut ist, in ihre Seele ein. Dadurch konnten sie die Führer der noch in Dumpfheit befangenen jungen Menschheit sein. (...) Sie unterschieden sich nun dadurch von dem, was man 'Mensch' nennt, dass ihnen die Weisheit zustrahlte wie uns das Sonnenlicht, als eine freie Gabe 'von oben'.*

In which way does man evolving differ from them ?

*Der Mensch war in einer anderen Lage. Er musste sich die Weisheit durch die Arbeit der Sinne und des Denkorgans erwerben. Sie kam ihm zunächst nicht als eine freie Gabe zu. Er musste sie begehren. Nur wenn im Menschen die Begierde nach Weisheit lebte, dann erarbeitete er sich dieselbe durch Sinne und Denkorgan. So musste in der Seele ein neuer Trieb erwachen : die Begierde, das Verlangen nach Wissen. Dieses Verlangen konnte die Menschenseele auf ihren früheren*

*soul can think only when helped by the brain while receiving the outside by the physical senses. That is how man's soul developed. Man's soul had to wait until there was a brain to communicate with the spirit. Without this {physical-cerebral} detour this {then human} soul would have been left without the spirit. It would have remained at the stage of dreamlike consciousness.*

*It was different with the aforesaid superhuman beings. Their souls had developed soul organs on earlier stages. They did not need anything physical to connect to the spirit. Their cognition and wisdom had developed in supersensible ways. We are calling such cognition : intuition. Only later {VULCAN, the last planetary development state, see chapter D.8 «Our Remote Future»} will man of today come to such intuition enabling him to come into touch with the spirit without sensory mediation. He cannot help but follow the detour through sensory matter. We are calling this detour : the soul descending into matter; or mostly 'the fall from grace' . -*

*The superhuman creatures did not need this kind of descending because they had undergone a different development earlier. (...) The kind of wisdom that the world is built by, radiated into their souls directly. That is how they could be leaders to emerging man who was still steeped in dullness. (...) They were different, however, from what we are calling 'man' in that wisdom radiated to them as sun light is doing to us, as a free gift 'from above'.*

*Man was in a different situation, having to strive for wisdom by working on the senses and the thinking organ. So far they did not come to him as a free gift. He had to yearn for them. Only when craving for wisdom lived in man, could he work for it through the senses and the thinking organ. So a new drive had to wake up in the soul : the craving, the desire to know. In its early stages {before middle Lemuris} man's soul could not con-*

*Stufen nicht haben. Ihre Triebe gingen nur nach Gestaltung in dem, was äußerlich an Gestalt annahm, was als ein traumartiges Leben sich in ihr abspielte ; aber nicht nach Erkenntnis einer Außenwelt, nicht nach Wissen. Mit der Geschlechtertrennung tritt zuerst der Trieb nach Wissen auf. -*

*tain this desire. His desires went only as far as forming what acquired gestalt externally, taking place in the soul as dreamlike life ; still he did not desire cognition of the outer world, not of anything to know about. Only when the sexes separated did the drive for knowledge come up. -*

The superhuman beings on the contrary :

*Den übermenschlichen Wesen wurde die Weisheit gerade dadurch auf dem Wege des Hellsehens kund, weil sie nicht dieses Verlangen danach trugen. Sie warteten, bis die Weisheit in sie einstrahlte, wie wir das Sonnenlicht abwarten, das wir nicht in der Nacht erzeugen können, sondern das uns am Morgen von selbst kommen muss. -*

*The superhuman beings came to know about wisdom by way of clairvoyance just because they did not desire it. They waited until wisdom radiated into them, the same as we are waiting for sunlight which we cannot create during the night. It must come to us in the morning out of itself. -*

*Das Verlangen nach dem Wissen (...) ist eine Folge davon, dass ein Teil der Seelenkraft nicht mehr nach außen arbeitet sondern nach innen. Die übermenschlichen Wesen aber, welche diese Trennung der Seelenkräfte nicht vollzogen haben, richten ihre ganze Seelenenergie nach außen. Ihnen steht daher nach außen hin zur Befruchtung durch den Geist auch diejenige Kraft zur Verfügung, welche der 'Mensch' nach innen kehrt zum Bau der Erkenntnisorgane. -*

*{With man} the desire for wisdom (...) comes from a part of the soul's force not working towards the outside {the physical world} any more {as before middle Lemuris} but towards the inside {towards building up physical organs for the soul to use}. The superhuman beings on the other hand turn all their soul energy to the outside because they need not split up their soul forces. That is why they can use towards the outside the force fertilized by the spirit, whereas 'man' needs to turn it inside to build up cognition organs. -*

What do the *superhuman beings* aim at with man ? Of course we are dealing here with man from the middle of *Lemuris* on. Here we must deal first with certain soul impulses of man and the *superhuman beings* : selfishness and love. Now finally we can find out that these *superhuman beings* are not the harming *spiritual beings* we had come to know about at the beginning of *Lemuris*, see the subsection «Damaging Spiritual Beings» in there.

Human selfishness first : How did it arise ? - Through the human sensory way to love.

*Nun ist diejenige Kraft, durch welche der Mensch sich nach außen kehrt, um mit einem andern zusammen zu wirken, die Liebe. Die übermenschlichen Wesen richteten ihre ganze Liebe nach außen, um die Weltenweisheit in ihre Seele einströmen zu lassen. Der 'Mensch' aber kann nur einen Teil nach außen richten. Der 'Mensch' wurde sinnlich ; und damit wurde seine Liebe sinnlich. Er entzieht den Teil seines Wesens der Außenwelt, den er auf seinen inneren Ausbau wendet. Und damit ist das gegeben, was man Selbstsucht nennt. Der 'Mensch' konnte, als er im physischen Leibe Mann oder Weib*

*Well, love is the power by which man turns to the outside to work with another person. The superhuman beings directed all their love to the outside {world} to let universal wisdom stream into their souls. 'Man', however, can just direct a part {of the spiritual} to the outside {physical world}. 'Man' became sensory ; and so his love became sensory {, too}. {But} he withdraws from the outside physical world the part of his essence which he uses to build up {the soul and organs for it to use} internally. That is how we have what we are calling selfishness. When 'man' became man or woman in the physical body, he could engage himself {to the other person} just*

*wurde, nur mit einem Teil seines Wesens sich hingeben ; mit dem andern sonderte er sich ab von der Umwelt. Er wurde selbstsüchtig. Und selbstsüchtig wurde seine Wirkung nach außen, selbstsüchtig sein Streben nach innerer Entwicklung. Er liebte, weil er verlangte, und er dachte, weil er ebenfalls verlangte, nämlich nach Wissen. -*

*with a part of his being {namely the part directed to the outside} ; with the other part {namely the part directed to the inside} he separated from what surrounded him. He became selfish. Selfish came to be his working to the outside {physical world}, {and} selfish his endeavor for internal development. He loved because he desired, and he thought because he yearned, too, namely for knowledge. -*

### Beings of Love ("Moon Gods") ...

*Als selbstlose, all-liebende Naturen standen die Führer, die übermenschlichen Wesen, dem noch kindlich selbstsüchtigen Menschen gegenüber. - Die Seele, die bei ihnen nicht in einem männlichen oder weiblichen Leib wohnt, ist selbst männlich-weiblich. Sie liebt ohne Verlangen. So liebte die unschuldige Seele des Menschen vor der Geschlechtertrennung ; doch konnte sie damals, weil sie eben noch auf einer untergeordneten Stufe war - im Traumbewusstsein - nicht erkennen. So liebt aber auch die Seele der übermenschlichen Wesen, die aber trotzdem, wegen ihrer vorge-rückten Entwicklung, erkennen kann. Der 'Mensch' muss durch die Selbstsucht durchgehen, um auf einer höheren Stufe wieder zur Selbstlosigkeit zu kommen, dann aber bei völ- lig hellem Bewusstsein.“ (R.Steiner 11:81 f, V).*

*The leaders, the superhuman beings, faced man, still childishly selfish as he was, as unselfish, all-loving characters. - With them the soul is male-female and does not live in a male or female body. It loves without yearning. That is how man's innocent soul loved before the sexes separated {before middle Lemuris} ; but it was unable {as yet} to recognize {consciously} because it was on a lower stage - in dreamlike consciousness. That is how the superhuman beings' souls love, too, {i.e. unselfishly, without yearning}. All the same they were able to recognize because of their advanced development. 'Man' must go through selfishness to become unselfish again, but then on a higher level, all conscious then. -*

Here Steiner polarizes between selfishness and love, be it only for didactic reasons. In other places however he gives a judgment :

*„Doch die Liebe wird etwas Edles, wenn der Mensch aufsteigen kann in höhere Welten und lieben kann dasjenige, was er sich erobert durch die spirituellen Begriffe. Vergessen wir nur ja nicht : Liebe ist etwas, was niedrig ist, wenn es in einer niedrigen Sphäre wirkt, {und} was edel und hoch und geistig ist, wenn es in einer höheren, in einer geistigen Sphäre wirkt.“ (R.Steiner 178:55 , II : 11/16/1917).*

*Love however becomes something noble if man can rise to higher worlds, loving what he acquired by spiritual concepts. We should not forget : Love is something low if working in a low sphere, {and} something noble and high and spiritual when working in a higher, a spiritual sphere.*

He shows he is a polarizing idealist. In our days we have been going so far as realizing we are carrying selfishness and love within ourselves as much as all the time. Heeding for examples ? - Albert Schweitzer is sure to have felt some personal fulfillment when he decided aged 30, after a brilliant academic career in his twenties, to become a MD in the African jungle - selfless in the major part. - What about a counter example ? Probably the most selfless drive is a mother wishing to nourish her child. Still even this can come to selfish motives. Namely when the mother persuades her child to eat as much as evidently does no good to the child. Certainly there are psychic reasons for that. Psychic reasons in the mother not respecting her child's welfare. - A concrete example of that ? How often were children to eat up their spinach plates ! Only half a century ago word got around that children cannot digest the oxalic acid in spinach, for instance. Many a meal got out of hand until this finding had spread in education, a mixture of motherly care, self-fulfillment - and self-affirmation on both sides.

What is the *loving beings'* task vis-à-vis mankind ? - Here we are taking the step from sensory to sensual love.

## D.5. During EARTH : Details

Steiner uses an ambiguous word with both meanings in German, perhaps convenient to the time, so as not to shock his then audience. *Love beings'* love, and the kind of human love they incite, can well be different from the all too human love described here, sexual love. Which evidently is not unselfish, in the beginning at least.

*„Das war nun die Aufgabe der übermenschlichen Naturen, der großen Führer, dass sie den jungen Menschen ihren eigenen Charakter, den der Liebe aufprägten. Sie konnten das nur bei dem Teil der Seelenkraft, der sich nach außen richtete. Es entstand dadurch die sinnliche Liebe. Diese ist daher die Begleiterscheinung des Wirkens der Seele in einem männlichen oder weiblichen Leibe. Die sinnliche Liebe wurde die Kraft der physischen Menschenentwicklung. Diese Liebe führt Mann und Weib zusammen, sofern sie physische Wesen sind. Auf dieser Liebe beruht das Fortschreiten der physischen Menschheit. -*

*Nur über diese Liebe hatten die genannten übermenschlichen Naturen Gewalt. Der Teil der menschlichen Seelenkraft, welcher nach innen geht und auf dem Umwege durch die Sinnlichkeit Erkenntnis bringen soll, entzieht sich der Macht jener übermenschlichen Wesen. Sie waren ja selbst nie bis zur Entwicklung entsprechender Innenorgane herabgestiegen. Sie konnten den Trieb nach außen in Liebe einkleiden, weil sie die nach außen wirkende Liebe als ihre eigene Wesenheit hatten. Dadurch war eine Kluft zwischen ihnen und der jungen Menschheit gegeben.*

*Die Liebe, zunächst in sinnlicher Form, konnten sie dem Menschen einpflanzen ; Erkenntnis konnten sie nicht geben, denn ihre eigene Erkenntnis hatte nie den Umweg über die Innenorgane genommen, welche der Mensch nun bei sich herausbildete. Sie konnten keine Sprache sprechen, die ein Gehirnwesen hätte verstehen können. -*

*Now this was the great leaders', the superhuman beings' task : to impress their own character, love, on young mankind {from middle Lemuris on}. They were only able to do so to the part of the {human} soul that turned outside {to the physical world}. That is how sensual love originated. So this is what accompanies the working of the soul in a male or female body. Sensual love is what became the force of man's psychic development. This kind of love makes man and woman meet insofar they are physical beings. This is the kind of love that makes physical man progress. -*

*It was just this {kind of} love that the aforesaid superhuman beings could influence {mankind}. The part of the human soul power that directs itself inside and is to bring cognition via detours through the senses, eludes the power of those superhuman beings. Never had they themselves gone down as far as developing corresponding inner organs. They were able to clad in love the drive to the outside because their own being led them to love vis-à-vis the outside. So there was a divide between them and young {early} mankind. They could indeed implant love into man - at first in its sensuous form ; cognition was not what they could give {him} because their own cognition had never taken the detour via internal organs which man built up inside himself now {from the middle of Lemuris on}. They were unable to use a language a brain-being could understand. -*

Soul development in man is not totally new, however :

*Nun wurden die genannten Innenorgane des Menschen zwar erst auf der Stufe des Erdendaseins, die in der Mitte der Lemurischen Zeit liegt, reif zur Berührung mit dem Geiste ; in einer unvollkommenen Anlage wurden sie aber schon einmal auf einer viel früheren Entwicklungsstufe ausgebildet. Denn schon in vorhergehenden Zeiten ist die Seele durch physische Verleiblichungen hindurch geschritten. Sie hatte zwar nicht auf der Erde, aber auf anderen Himmelskörpern*

*Well, it is only at the stage of Earth development which is in the middle of Lemuris that the aforesaid internal organs in man matured sufficiently to come in touch with the spirit. Still they had developed in an incomplete Anlage once before <sup>1</sup> on a much earlier stage of development. In previous times <sup>2</sup> already the soul went through physical incorporations. It*

*in verdichtetem Stoffe gelebt.*“ (R.Steiner 11:82 - 84 , V).

*had not lived in densified substances on Earth but on other world bodies* <sup>3</sup>.

<sup>1</sup> {during OLD MOON} , <sup>2</sup> {either planetary development stages like OLD MOON, or ages during EARTH, and in this case : <sup>3</sup> other planets "between the Sun and the Moon separation" (R.Steiner 122:177 , X : 8/25/1910) i.e. from the end of the Hyperborean age (?720? million years ago) up to Permian, the middle {~ 300 - 250 million years ago} of Lemuris (? 720? - 66 million years ago)}.

### ... and Wisdom Beings ("Sun Gods") : Lucifer

*„Aber es gab andere Wesen, die nicht so weit waren wie diese Führer der Liebe, die vielmehr auf dem vorhergehenden Planeten noch zu den 'Menschen' zählten, die aber damals den Menschen voraneilten. So waren sie beim Beginn der Erdbildung zwar weiter als die Menschen, aber doch noch auf der Stufe, wo durch innere Organe die Erkenntnis erworben werden muss. Diese Wesen waren in einer besonderen Lage. Sie waren zu weit, um durch den physischen Menschenleib, den männlichen oder weiblichen, hindurchzugehen, aber doch noch nicht so weit, um durch volles Hellsehen gleich den Führern der Liebe wirken zu können. Liebewesen konnten sie noch nicht, 'Menschen' konnten sie nicht mehr sein. So war es ihnen nur möglich, als halbe Übermenschen, aber mit Hilfe der Menschen ihre eigene Entwicklung fortzusetzen. Sie konnten zu Gehirnwesen in einer diesen verständlichen Sprache reden. Dadurch wurde die nach innen gekehrte menschliche Seelenkraft angeregt, und sie konnte sich mit der Erkenntnis und Weisheit verbinden. Es kam dadurch überhaupt erst eine Weisheit menschlicher Art auf die Erde. Von dieser Menschenweisheit konnten die genannten 'halben Übermenschen' zehren, um selbst das zu erreichen, was ihnen noch an Vollkommenheit fehlte. So wurden sie die Erreger von Menschenweisheit. Man nennt sie deshalb Bringer des Lichts (Luzifer).“ (R.-Steiner 11:84 f , V).*

*There were other beings however who had not progressed as much as these leaders of love had. They were still counted among 'man' on the previous planet {planetary development state : during OLD MOON} but they rushed ahead of man at the time. So they were more advanced than man at the beginning of EARTH but they were still at the stage when cognition had to be acquired by inner organs. These beings were at a peculiar stage. They had advanced too far to pass through {the stage of} man's physical body, male or female. Yet they had not advanced as far as being able to act by full clairvoyance as the leaders of love did. They could not yet be love beings, and they could not be 'man' any more. So they could pursue their development as half-super-humans, but just with man's help. They could talk to brain beings in a language understandable to man. So {the part of} man's soul force that had turned inside was stimulated and could connect to cognition and wisdom. Only so did wisdom in man's way come to Earth. These 'half-super-humans' could sap their energy from this human wisdom to attain what they still needed for perfection. So they became the origin of human wisdom. That is why they are called bringers of light (Lucifer).*

For man's development we need both of them, *love beings* and *wisdom beings*.

*„Zweierlei Führer hatte also die kindliche Menschheit : Liebewesen und Weisheitswesen. Zwischen Liebe und Weisheit war die menschliche Natur eingespannt, als sie auf dieser Erde ihre gegenwärtige Form annahm. Durch die Liebewesen wurde sie zur physischen Entwicklung angeregt, durch die Weisheitswesen zur Vervollkommnung des inneren Wesens. Infolge der physischen Entwicklung schreitet die*

*So mankind's childhood had two kinds of leaders : love beings and wisdom beings. Human nature was harnessed between love and wisdom when it took on its present form {from middle Lemuris on}. Love beings stimulated its physical development, wisdom beings perfected the inner being. Because of its physical development mankind*

## D.5. During EARTH : Details

*Menschheit von Generation zu Generation vor, bildet neue Stämme und Rassen ; durch die Innenentwicklung wachsen die Einzelnen zur inneren Vollkommenheit, werden Wissende, Weise, Künstler, Techniker usw. “ (R.Steiner 11:85 , V).*

*progresses from generation to generation creating new tribes and races ; because of its inner development to inner perfection there are those who know, wise people, artists, technicians etc.*

Steiner calls the *wisdom beings* "Sun gods" and the *love beings* "Moon gods" because of "secret science" according to (R.Steiner 11:124 f and 127 f, IX both of them), i.e. his *clairvoyant cognition*.

*Man evolving becomes material and descends from the life sphere onto the ground - too early, seduced by Lucifer.*

*„The Luciferic impact during the middle {~ 300 - 250 million years ago, [Permian]} of the Lemurian age (?720? - 66 million years ago) resulted in {evolving} man descending too early to the ground where continents arose (R.Steiner 109, 6/10/1909), i.e. during the Moon separation to be sure ! This is probably what is indicated by {Steiner's} written wording, concerning the time after the Luciferic impact : "While man was rather a finely organized being in swimming-floating motion above the ground, he had to descend 'from the Earth's surrounding' onto parts of the ground that had densified more or less." (R.Steiner 13:250 , IV). When writing of these man precursors that had densified too early, he probably did mean the first fish-like vertebrates building up an inside skeleton and documented from the Silurian / Devonian on [from ~ 420 million years ago on]. The amphibians built up legs from the Carboniferous on [from ~ 359 million years ago on] enabling them to move on the densifying ground." (Bosse 2012, S. 103).*

We cannot appreciate enough Lucifer's helpful influence leading us into the future.

*„Es war gegen Ende der Lemurischen Zeit, dass der Mensch tatsächlich in seinem astralischen Leibe den Einflüssen, die von Luzifer herkamen, ausgesetzt war. Wenn Luzifer nicht an den Menschen herangetreten wäre, so wäre der Mensch bewahrt geblieben vor gewissen Schäden, aber er wäre auch nicht zu dem gekommen, was wir zu den höchsten Gütern der Menschheit zählen müssen. -*

*It was about the end of the Lemurian time {age, > 66 million years ago} that man was in fact exposed in the astral body to influences coming from Lucifer. If Lucifer had not approached him, man would have been left unmolested from certain damages, but he could not have come to what we need to count among man's highest goods {namely freedom to decide, and becoming responsible}. -*

*Wir können uns nun klarmachen, was der Einfluss des Luzifer für eine Bedeutung hat, wenn wir uns fragen, was geschehen wäre, wenn es seit der Lemurischen Zeit keinen luziferischen Einfluss gegeben hätte, wenn der Mensch sich so entwickelt hätte, dass Luzifer und die Wesen, die zu ihm gehören, von dem Menschen ferngeblieben wären. Dann hätte sich der Mensch so entwickelt, dass er bis in die Mitte der Atlantischen Zeit hinein ein Wesen geblieben wäre, das in allen Impulsen des astralischen Leibes, in allen Motiven des astralischen Leibes gefolgt wäre den Einflüssen gewisser über den Menschen stehender geistiger Wesenheiten, welche durch ihren Einfluss den Menschen geführt hätten bis in die Mitte der Atlantischen Zeit hinein. Da würde der Mensch viel, viel später erst sein Wahrnehmungsvermögen, sein*

*Now we can get clear what Lucifer's influence means to us when asking ourselves what would have happened if there had not been Lucifer's influence since the Lemurian time {age}, {i.e.} if man had developed so that Lucifer and the beings belonging to him had stayed away from man. Then man would have developed so that until the middle {~ 33 million years ago} of the Atlantic time {age} (66 million years ago - 11.7 thousand years ago) he would have remained a being that would have followed the influence of certain spiritual beings {love beings} standing above man, in all the impulses of the astral body, in all the motives of the astral body. Their influence would have led man as far as about the middle {~ 33 million years ago} of the Atlantic time {age}*

*Erkenntnisvermögen auf die sinnliche Welt gerichtet haben, so dass den Menschen in der Lemurischen Zeit und ersten Atlantischen Zeit aus den Sinneswahrnehmungen heraus keine Leidenschaften, keine Begierden erwachsen wären und der Mensch sozusagen unschuldig der Sinneswelt gegenübergestanden hätte und in alledem, was er getan hätte, gefolgt wäre den ihm eingepflanzten Impulsen höherer geistiger Wesenheiten. Es wäre nicht ein Instinkt gewesen, wie der Instinkt der heutigen höheren Tiere, unter dem der Mensch alles unternommen hätte, sondern ein vergeistigter Instinkt. Zu jeder Tat, die er auf der Erde getan hätte, hätten ihn nicht gereizt die bloßen sinnlichen Impulse, sondern etwas geistig Instinktives. So aber ist der Mensch unter dem Einflusse Luzifers früher dazu gekommen, dass er sagte : Dies macht mir Freude, dies zieht mich an, dies stößt mich ab ! - Er ist dazu gekommen, früher als sonst seinen eigenen Impulsen zu folgen, ein eigenständiges Wesen zu werden, eine gewisse Freiheit in sich zu entwickeln. Eine gewisse Loslösung von der geistigen Welt trat dadurch für den Menschen ein. Man könnte sagen, wenn man sich klar ausdrücken wollte : Ohne diesen Einfluss Luzifers wäre der Mensch ein vergeistigtes Tier geblieben, ein Tier, das sich an Gestalt allmählich entwickelt hätte, sogar in edlerer und schönerer Form, als der Mensch unter dem Einflusse Luzifers sich entwickelt hat. Der Mensch wäre viel engelhafter geblieben, wenn dieser Einfluss Luzifers in der Lemurischen Zeit nicht eingetreten wäre. Aber auf der anderen Seite wäre er von den höheren Wesenheiten wie an einem Gängelbände geleitet worden. In der Mitte der Atlantischen Zeit wäre wie mit einem Schlage etwas an den Menschen herangetreten : Seine Augen wären voll geöffnet worden, und er hätte um sich gehabt den Teppich der gesamten physisch-sinnlichen Welt ; aber er hätte ihn so um sich gesehen, dass er hinter jedem physischen Dinge zugleich ein Göttlich-Geistiges wahrgenommen haben würde, eine Welt göttlich-geistiger Untergründe.“ (R.Steiner 107:164 f , XII : 1/1/1909).*

(66 million years ago - 11.7 thousand years ago). *Only much later would man have directed his perceptiveness, {and} his cognitive faculty to the world of the senses. So that man would not have felt passions or lust during {later parts of} the Lemurian time {age} {> 66 million years ago} and the first part {< 66 million years ago} of the Atlantic time {age} (66 million years ago - 11.7 thousand years ago). Man would have confronted the world of the senses in an innocent way to say so, following the implanted impulses of higher spiritual beings {love beings} in everything he might have done. It would not have been an instinct as the instinct of today's higher animals, but a spiritualized instinct instead. Every deed he might have done on Earth, would not have been induced by mere sense impulses but by something instinctive spiritually. Under Lucifer's influence, however, man came to saying {to himself} : This makes me happy attracting me, this repels me ! - He came to following impulses of his own earlier than otherwise, becoming a self-reliant being, developing some certain freedom within himself. So man parted from the spiritual world in some way. Speaking more clearly we might say : Without this influence of Lucifer's, man would have remained a spiritualized animal, an animal by and by developing its gestalt even to more noble and more beautiful forms than man developed under Lucifer's influence. Man would have remained much more angelic if this influence of Lucifer's would not have occurred during the Lemurian time {age}. But on the other hand he would have been led by the higher beings as if on a goose belt. In the middle {~ 33 million years ago} of the Atlantic time {age} (66 million years ago - 11.7 thousand years ago) man would have realized all of a sudden : His eyes would have been opened fully, and he would have had the carpet of all the physical world of senses around him ; but he would have seen it so that he would have perceived behind anything physical something godly-spiritual at the same time, a world of godly-spiritual substrates.*

*Lucifer* enables us - against his intention - to decide freely at any moment between him and the *love beings*. In how far this freedom is important to us, may be read in vol. I , part 3 , chapter F.2 «Witnessing Consciousness Developing : from *Lemuris* on».

We met with *Lucifer* in vol. I , part 1 , chapters B.1 , B.2 , and B.5 . He will accompany us in vol. I , part 3 , chapters F.5 to F.7 , too. We cannot forget him in man's development. But *Ahriman* and *Sorath*, whom we came to know in chapters B.3 and B.5 , are waiting for us : *Ahriman* since about the middle {~ 33 million years ago} of the *Atlantic age* (66 million years ago - 11.7 thousand years ago), *Sorath* in the near future, perhaps in present times already. - Here, however, we shall deal with what occurred from *middle Lemuris* on [Permian, 300 - 250 million years ago] aside from the *Moon separation*, *monosexuality*, and the *Luciferic* influence.

We remember : By *monosexuality* Steiner understands an individual containing just one sex : individuals of either sex, male or female. For him bisexuality consists in an individual containing both sex organs, male and female. - Both terms in today's sense, namely referring to a person's attitude, are not Steiner's.

### The Christ's First Sacrifice / -Gift

*"Rudolf Steiner describes 'the Christ's three pre-Christian sacrifices' in connection with upright stature developing, speech, and thinking - in the same sequence as with the toddler." (Delor 6:467).*

*„Drei Dinge gehen dem Ich-Erwachen beim Kinde voran, drei Dinge, die von ungeheurer Wichtigkeit sind. Das Kind lernt gehen, das heißt, es lernt sich erheben aus der Lage, in der es noch unfähig ist, seine Leibesrichtung von der Erde ab-, in die Himmelshöhen des Kosmos hinaufzurichten. Es lernt, aus der einen Lage in jene andere sich bringen, durch die sich der Mensch in erster Linie vom Tier unterscheidet. Es lernt durch die eigene innere Kraft sich die aufrechte Stellung zu geben, den Blick abzuwenden vom Irdischen, zu dem ihn das Tier durch seine ganze Bestimmung und Gestalt dennoch gerichtet haben muss, denn die Ausnahmen sind nur scheinbar. Die aufrechte Stellung ist es, die das Kind lernt, bevor das Ich-Bewusstsein erwacht. Wir wiederholen wirklich in unserem jetzigen nachatlantischen Leben die Dinge, die wir als Mensch überhaupt uns erst angeeignet haben im Laufe der Zeit. Was wir uns während der alten Lemurischen Zeit erst nach und nach angeeignet haben, das Aufrechtgehen-Lernen, das Aufrechtstehen-Lernen, das wiederholen wir, bevor unser Ich erwacht, jetzt im kindlichen Alter. Das ist hineingedrängt in die Zeit, wo es noch nicht von unserem Bewusstsein abhängt, wo es noch als unbewusste Aufrichtekraft wirkt. (...)*

*In childhood three things precede the 'I's awakening, three things of extreme importance. The child learns to walk, i.e. he rises up from the posture when he is still unable to lift the direction of his body up from the ground into the heavens of the cosmos. He learns to bring himself from one posture into that other one wherein man differs from animals in the first place. He learns to give himself the upright position by his own strength, turning his view away from the Earth, whereas the animals need to keep looking at the Earth by all their destination and gestalt because exceptions just seem to be so. The child learns walking upright before 'I'-consciousness awakens. Nowadays in Post-Atlantic lives we do repeat what we acquired as man {evolving} in the course of time. What we acquired just by and by during ye olde {middle and late, 252 - 66 million years ago} Lemurian time {age} (?720? - 66 million years ago), i.e. learning to go upright, to stand upright : that is what we repeat before the 'I' wakes up, in toddlers' ages nowadays. That is inserted into the {life} time when the toddler does not yet depend of being conscious, {but} when there is still an unconscious impulse working to stand upright.*

What are the impulses that make us stand upright ? - Not earthly ones, and not Luciferic or Ahrimanic ones either but cosmic forces.

*Die Erde selber hat in sich geistige Kräfte, welche durchströmen können das Rückgrat, wenn*

*The Earth herself contains spiritual forces that can stream through the*

*es im natürlichen Wachstum, wie beim Tierleib, horizontal bleibt. Aber die Erde hat keine Kräfte, um von sich aus unmittelbar zu dienen dem Menschenwesen, das durch sein Ich, dessen Bewusstsein später erwacht, vertikal gerichtet sein kann. Damit der Mensch sich harmonisch entwickeln kann bei aufrechtem, vertikalem Gang, müssen Kräfte aus dem Kosmos, aus dem Außerirdischen hereinströmen. Luzifer und Ahriman hätten alle menschliche Entwicklung in Unordnung bringen können dadurch, dass der Mensch durch seine aufrechte Stellung von den geistigen Kräften des Irdischen herausgerissen ist, wenn nicht in der alten Lemurischen Zeit das erste Christus-Ereignis eingetreten wäre." (R.Steiner 15:104 ff, VI : 3-7-1914).*

*spine when keeping horizontal in natural growth as with the animal body. But the Earth does not contain the forces to serve man directly by herself when his 'I' may turn vertical as his consciousness wakens up later {from middle Atlantis, ~ 33 million years ago, on}. Forces out of the cosmos, out of the extraterrestrial are needed so that man can develop walking harmoniously upright, vertically. Lucifer and Ahriman could have messed up all human development by having man's upright walking torn out of the spiritual Earth forces if the Christ's first sacrifice or gift had not taken place in ye olde Lemurian time.*

Maybe "ye olde lemurian time" may direct to early *Lemuris* all the same [~ 538.8 – 251.9 million years ago] ? On the other hand contemporary *clairvoyant* sources (*Delor 6:470*) indicate the Christ's 1<sup>st</sup> sacrifice only at the end of the Jurassic [> 145 million years ago].

### **What Else Does Occur from Middle *Lemuris* on ?'**

#### **The Earth's Axis As Well As Man Straighten Up. Monad 'I's and Karma**

Between the middle {~ 275 million years ago} of the Permian = *middle Lemuris* [298.9 - 251.9 million years ago] and the beginning of the Jurassic [201.3 million years ago] the Earth's axis shifts largely into today's position (*Delor 6:462*). About the same time man straightens up - still this takes as long as the middle of the Jurassic {~ 175 million years ago} (*Delor 6:319, 422*). We may see a connection as the two times coincide. - Still geophysics do not know of any shifts of the Earth's axis to today's position after it might have been directed to the Sun.

*„Alles, was in der Natur ist, Mineral-, Pflanzen- und Tierreich, ist da durch die Folgen früherer Taten. Was um uns herum aufgebaut ist durch unsere Taten, ist tatsächlich etwas, was neu in die Welt hineinkommt. Bei jedem Menschen kommt etwas herein in die Welt, ein neuer Einschlag, und neue Einschläge kommen auch durch die ganze Menschheit.*

*Everything in nature - mineral kingdom, plant kingdom, and animal kingdom - is there because of earlier deeds. What {however} has been erected all around us by activities of our own, really is something coming to the world anew. With every person something new comes into the world, a new impact, and there are new impacts coming from all mankind, too.*

*Wenn wir uns also sagen müssen : Der Mensch tritt in der Mitte der Lemurischen Zeit <sup>1</sup> [vor ~ 275 Mio. J.] auf der Erde auf und schafft zum ersten Mal eigenes Karma - früher hatte er kein individuelles Karma geschaffen -, so müssen wir nun fragen : Woher kann dieses Karma nur kommen, da es etwas Neues hereinwirkte ? - Es kann nur aus dem Nirwana kommen. Damals musste etwas hereinwirken in die Welt, das aus dem Nirwana kam, aus dem, wo aus dem 'Nichts' heraus geschaffen wird. Die Wesen, die damals die Erde befruchteten, mussten bis ins Nirwana hinaufreichen. Was die vierfüßigen Wesen*

*So when having to tell ourselves : Man descends onto the ground in the middle [Permian, 298.9 - 251.9 million years ago] of the Lemurian time {age} (?720? - 66 million years ago) creating Karma of his own - he had not created individual Karma before -, then we need to ask now : Where might this Karma come from since it accomplished something new ? - It can only have come from Nirvana. Something coming from Nirvana into the world at the time, must have been created out of the 'nowhere'. The beings fertilizing the Earth at the time must have reached as*

*befruchtete, so dass sie Menschen wurden, waren Wesen, die vom Nirwanaplan herunterkamen. Sie nennt man Monaden ('Iche'). Das ist der Grund, warum damals Wesen dieser Art vom Nirwanaplan herunterkommen mussten. Vom Nirwanaplan ist das Wesen, das in uns, im Menschen ist, die Monade.*“ (R.Steiner 93 a:125 f , XVI : 10/11/1905).

*„Man blicke zurück in die Zeit der Lemurier [vor ?720? – 66 Mio. J.]. Da haben wir den Menschen, so wie er auf der Erde ist, zunächst auf allen Vieren gehend. Diese Wesen, in denen sich der Mensch dazumal als 'reiner Mensch' (als Monade) verkörperte : die gingen auf allen Vieren. Dadurch, dass sich die Monaden in ihnen verkörperten, richteten sich diese Wesen allmählich auf und erhoben die vorderen Gliedmaßen. Jetzt erst beginnt das Karma. Karma als menschliches Karma ist erst möglich geworden, als die Menschen ihre Hände zur Arbeit verwendeten. Vorher schaffte man kein individuelles Karma. Dies war eine sehr wichtige Stufe der menschlichen Entwicklung, als der Mensch von einem horizontalen Wesen ein vertikales Wesen wurde und dadurch die Hände frei hatte. So entwickelte er sich in die Atlantische Zeit <sup>1</sup> [ab vor ~ 66 Mio. J.] hinüber.“* (R.Steiner 93 a:124 , XVI : 10/11/1905).

*far as Nirvana. What fertilized the four-legged animals so they could become man, were beings coming down from the Nirvana plane. We call them monads ('I's). That is the reason why beings of this kind had to come down from the Nirvana plane. The being inside us humans that is from the Nirvana plane is the monad.*

*Let us look back as far as the time {age} of the Lemurians. There we have man as he is on Earth {then} walking on all fours so far. The beings into whom man incarnated at the time as 'pure humans' (as monads) : they did walk on all fours. Because the monads incorporated in them, these beings straightened up by and by lifting up their front feet. Only now does Karma begin. Karma as human Karma has come to be possible only when man used his hands for work. Before that there was not any individual Karma. This is a highly important step in human development, when man became a vertical being from a horizontal one and had his hands free. So he developed into the Atlantic time {age} (66 million years ago - 11.7 thousand years ago).*

### **So What Are the Changes Brought About by the Moon Separation ?'**

Led by the *Moon gods* man discovers sexual love. However, the *Sun gods*, too, use this discovery with man. They are better known as the bringers of light, or symbolically as *Lucifer*. Man descends from the *life sphere* onto the densifying ground, straightening up and using his hands for work, so creating individual Karma. Led by monads ('I's) man comes to the very first precursor of his 'I'.

Did this occur parallelly to the *Moon separation*, or because of it ? - According to Steiner the Moon when separating took along hardening characteristics with her. So man remained less hardened and free to develop.

*„Der Mensch hat sich aufgerichtet. Das ist die unmittelbare Folge des Mondaustrittes.“*  
(R.Steiner 11:96 , VI).

*Man straightened up. This is the direct consequence of the Moon separation.*

The *Moon separation* keeps the Earth from becoming deserted ...

*„Betrachten wir noch einmal die Entwicklung vor dem Mondaustritt. Wir haben ansprechen müssen den Menschen als den Erstgeborenen der Schöpfung. Er entstand schon während des Saturns. Auf der Sonne kam dann hinzu das Tierreich, auf dem Monde das Pflanzenreich, und das Mineralreich ist auf der Erde hinzugekommen. Jetzt aber, von dem Mondaustritt an, wird die Sache anders. Wenn der*

*Let us consider once more what developed before the Moon separated. We had to address man as the firstborn of creation. He originated during {OLD} Saturn already. On {during OLD} SUN the animal kingdom supervened, on {during OLD} MOON the plant kingdom, and the mineral kingdom on {during} EARTH. Now, however, from the Moon separa-*

*Mond nicht ausgetreten wäre, wäre alles auf der Erde erstorben. Zuerst die Menschen, dann die Tiere, zuletzt die Pflanzen. Die Erde wäre mumifiziert worden. Davor ist die Erde durch den Mondaustritt gerettet worden. Es lebte alles wieder auf und erfuhr eine Erfrischung. Wie geschah nun diese Wiederauflebung ? -*

*tion on, things are going in a different way. If the Moon had not separated, everything on Earth would have died. First man, then animals, and the plants last. The Earth would have mummified. That is what the Earth was saved from by the Moon separating. Everything revived refreshed. How did this revival occur ? -*

... turning around the sequence of all the development that had occurred so far during the *OLD planetary development states*.

*Was das tiefste Reich war, das Mineralreich, das brauchte am wenigsten dazu. Das Pflanzenreich war wohl in einer gewissen Weise ausgedorrt, aber es konnte auch schnell wieder aufleben. Auch das Tierreich konnte sich in einer gewissen Beziehung nach und nach herauf entwickeln. Am spätesten konnten die Menschengestalten zu ihrer Geltung kommen, um die Seelen, die ihnen aus den höchsten Regionen der Welt zufließen, aufzunehmen. Es kehrt sich also die ganze Entwicklung um nach dem Mondaustritt. Während vorher zuerst das Menschenreich, dann das Tierreich, dann das Pflanzenreich und zuletzt das Mineralreich entstand, ist jetzt das Mineralreich am ehesten fähig, die wiederbelebenden Kräfte zur Geltung zu bringen. Dann kommt das Pflanzenreich und entwickelt sich zu den höchsten Formen hinauf, dann das Tierreich, und zuletzt erst kann sich das Menschenreich zu den höchsten Formen hinauf entwickeln. Nach dem Mondaustritt kehrt sich der ganze Sinn der Entwicklung um. Und die Wesenheiten, die sozusagen am längsten haben warten können, um sich mit ihrem Geistigen dem Physischen zu vereinigen, das sind solche, die, im höchsten Sinne des Wortes, nach dem Mondaustritt in eine geistigere Sphäre hinaufgestiegen sind. Jene, welche mit ihrer geistigen Entwicklung früher zum Abschluss gekommen waren, sind auf einer weniger vollkommenen Stufe zurückgeblieben.“ (R.Steiner 112:81 , IV : 6/27/1909).*

*The lowest kingdom, the mineral kingdom, needed the least {revival}. The plant kingdom had dried up in a way but could revive easily enough. The animal kingdom, too, could revive by and by in some way. Human gestalts were the latest to come into their own to take up the souls flowing down to them from higher regions {planets} of the world. So all the development turns round after the Moon separated. While the human kingdom had originated first before {during the OLD planetary development states and the preceding ages iterating them}, then the animal kingdom, then the plant kingdom, and finally the mineral kingdom, now {after the Moon had separated} the mineral kingdom was best suited to come back into its own with revived forces. Then the plant kingdom comes developing to the highest forms, then the animal kingdom, and only last can the human kingdom develop into the highest forms. After the Moon separated all the development sequence reverses. The beings that were able to wait the most before uniting the physical with their spiritual, are those that rose up into a more spiritual sphere after the Moon separated. Those that had finished developing spiritually earlier, remained on a less perfect step.*

How did things go on ?

*"At the transition from the 6th to the 7th creation day {according to the bible : after the 7th creation day which does not however have an impact on the Earth's development.} man's precursor, without an 'I' so far, has breath blown into him, and the 'I' with it. Since, however, this takes place 12 times in a row, {i.e.} every time a primordial people originates, and the primordial peoples incarnating over a huge time span, the transition from the 6th and the 7th creation day blurs." (Delor 6:420).*

## D.5. During EARTH : Details

## After the So-Called Days of Creation :

### Late Lemuris

*Duration 185,9 million years.*

Man's materialization beginning during the present planetary development state of EARTH.

Once again an overview, a corresponding excerpt of Tab. D.5.2. and D.5.6.a :

		<i>Lemurian age</i>	?720? - 66 Ma
<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :			538.8 Ma up to today
	Mesozoic = era of «intermediate life»	= ~ late Lemuris	251.9 – 66 Ma
	Triassic		251.9 – 201.3 Ma
	Jurassic		201.3 – 145 Ma
	Cretaceous		145 – 66 Ma

Ma = million years ago

*Tab. D.5.6.e. Late Lemuris.*

MESOZOIC = era of « middle life » = *Late Lemuris* :

- The continent *Lemuris* perished (*seen spiritually : because of Lucifer's influence on man*).
- Pangea broke apart forming today's continents.
- Continental drift began.
- In the upper *life sphere* temperatures sank down to ~ 50 ° centigrade, corresponding to bacteria's temperature tolerance today (*Bosse 2012, pg 42*).
- Dinosaurs «terrible lizards» developed from crawling animals. Of the dinosaurs → the Saurischia «reptile-hipped» → the two-footed theropods «wild foot» partly developed to → the Ornithischia «bird hipped» and ultimately to birds.

Geology from the Mesozoic on :

*"(...) at the beginning of the Mesozoic the Lemurian continent began to sink. That is why Pangea disrupted enabling continental drift because of plate tectonics. From now on these occurrences can be reconstructed quite exactly from fossils as well as by radiometric dating of crystalline basalts. The basaltic surfaces harden crystallizing as ocean floors. Since the Tertiary <sup>1</sup> the basalt layer hardened increasingly under the continents, too, as can be seen from the mineral contents. The Lemurian continent pushed under south Asia jamming up the Himalaya-alpine mountain chain. Flood basalt <sup>2</sup> pressed up at the continental and oceanic fracture zones which can be mapped out and classified in time quite exactly (*Bosse 2002, pg 443 - 452*). Their masses correspond almost to the Moon's mass all over ! Although this was explored geologically only 80 years later; Rudolf Steiner could already describe these occurrences imaginatively : "Disastrous catastrophes shook the Earth. To the occultist the basalt formations appear as the rest of purifying forces shaking the ground at the time when the Moon had to part from the Earth. This, however, was the time, too, when the Earth's watery core" - 'water' in the sense of liquid state - "densified and when the Earth's concrete mineral core originated by and by. On its one side the Earth was densified because of the Moon separating, on the other side, however, the upper parts gave the heavier, coarser substances down to the lower parts." (*R.Steiner 106, 9/7/1908*). I. e. on the side facing the Moon the basaltic surfaces of what is the pacific ocean floor today, solidified while on the other side <sup>3</sup> Pangea's rocks were building up." (*Bosse 2012, pg 105 f*).*

<sup>1</sup> [Paleogene + Neogene, 66 – 23 – 2.588 million years ago]

<sup>2</sup> [flood basalt (or plateau basalt) is the result of a giant volcanic eruption or series of eruptions that covers large stretches of land or the ocean floor with basalt lava [en.wikipedia.org 7/24] ], <sup>3</sup> {facing the Sun}

Geography of the Mesozoic :

*"Furthermore Steiner states concerning the second half<sup>1</sup> of the Lemurian Age <sup>2</sup>, just about the Mesozoic when the saurians lived as precursors of today's reptiles : 'You might have seen certain areas of the Earth's surface already almost like islands sticking out of the liquid rest either en-*

## D.5. During EARTH : Details

*veloped by steam or surrounded by ocean water. But still the areas sticking out alike to islands were masses of ground. Fire forces agitated between them so that such island areas are continually thrown up by volcanic forces of the time and submerged again. In short, the ground is still an element active in fire, everything is flowing, changing as if in life. You would find precursors of today's animal world living in certain areas <sup>3</sup> that had risen already and cooled down to a certain degree. Here and there you would already remark something like grotesque gestalts, precursors of today's reptiles and amphibians. You would not, however, see anything of man because man of the time <sup>4</sup> did not have a dense, concrete body <sup>5</sup> .' (R.Steiner 103 : 5/25/1908 ; very much like in 104 : 6/23/1908 and 100 : 6/25/1907)." (Bosse 2012, pg 106).*

<sup>1</sup> [251.9 - 66 million years ago] , <sup>2</sup> (?720? - 66 million years ago) , <sup>3</sup> {alike to islands} , <sup>4</sup> {the Mesozoic} , <sup>5</sup> {yet}

*"If the water masses rested mainly in the atmosphere up to <sup>1</sup> the Tertiary <sup>2</sup> the oceans must have filled up later <sup>3</sup> ." (Bosse 2012, pg 117).*

<sup>1</sup> [> 66 million years ago] , <sup>2</sup> [Paleogene + Neogene, 66 – 23 – 2.588 million years ago] , <sup>3</sup> {from the [Tertiary] on, from 66 million years ago on}

**Triassic** [252.3 – 201.3 million years ago] :

- Flora : ferns, coniferous trees , ginkgoes (*Delor 6:420*).
- Fauna :
- ~ 228 million years ago earliest flying dinosaurs.
- ~ 220 million years ago fossils of earliest mammal precursors.
- End : volcanism → 7<sup>th</sup> mass extinction, ~ 80 % of species and > 50 % of genres {different in Fig. D.5.5}.

**Jurassic** [201.3 – 145 million years ago] :

Up to the Triassic chalk had rained down from the protein atmosphere (*life sphere*). From the Jurassic on chalk rained down diluted in water. So certain ocean animals - mussels, foraminifera [monocellulars with a cell nucleus and a chalk hood] could build up chalk hoods (*Delor 6:156*).

- The Atlantic Ocean came up.
- Dinosaurs' widest expansion (*Delor 6:315*).
- Time of Cain and Abel (*Delor 6:315*).
- ~ 150 million years ago earliest flowers, birds, mammals in the strict sense.
- Jurassic beginning : Man completed dividing in sexes (*Delor 6:267 ff*). Why sexual reproduction with animals occurred earlier - earliest sexual reproduction of plants already 2.0 billion years ago - is what D. Bosse explains :

*"I do think the biogenetic basic law <sup>1</sup> holds. I think animals that fell from higher evolution before their sexes separated, took a short cut on their way to devolution <sup>2</sup> , advancing man who had sexes separating only later. The way into devolution condenses the overall development. Still in our days apes arrive at sexual maturity earlier than man." (as quoted by Delor 6:270).*

<sup>1</sup> {by Ernst Haeckel : «Ontogenetic history is an abbreviated iteration of phylogenetic history»}

<sup>2</sup> {in esoterics : development regression, see in vol. I , part 3 , chapter F.3 «The Threefold Law of Evolution, Devolution, and Internalization»}

**Cretaceous** [145 – 66 million years ago] : Building up of continents is completed.

- Oceans begin filling up (*Delor 6:155*).
- Middle Cretaceous : the world's heaviest series of volcanism in the Pacific, New Zealand, eastern India, and the south Atlantic, without mass extinction (*Delor 6:234 f*).
- 80 – 90 million years ago earliest primates supposed.
- ~ 70 million years ago earliest grass.
- End : volcanism + meteorite impact on Yucatan → 8<sup>th</sup> mass extinction, ~ 50 % of all animal or plant species, among them all bigger vertebrates [including dinosaurs], many plant types as well as a large part of the ocean flora and fauna.

## Yahweh Breathing the Breath of Life into Man's Nostrils

When did it [KJV II:7 / Buber & Rosenzweig I:13] occur ?

We remember : During *OLD SATURN* resp. the *Polaric Age* already *spiritual man* emerging developed a warmth body : *physical* {I}, yet did not develop further on - *physical* {II} and {III} - catching up on this with his incarna-

## D.5. During EARTH : Details

tion on Earth [KJV II:7 / Buber & Rosenzweig I:13] - for the sake of developing further : Namely Yahweh (Delor 6:442) breathing the breath of life into man emerging (Delor 6:440.f) : ~ from the middle of the Cretaceous [~ 330 million years ago] up to the end of the 2<sup>nd</sup> epoch of Atlantis [~ 37 million years ago] (Delor 5b:172) : into everyone of the 12 *primordial peoples* separately. According to the bible this occurs only after the so-called 7 creation days.

The end of the *life sphere* announcing itself ...

„Nun kam die Zeit, in welcher allmählich gewisse Teile der Materie, die heute zu unserem Leben so notwendig sind, das Wasser und die Luft, sich reinigten von dem, was sie an dichter Materie enthielten, wo sich sozusagen herausstrennte, was früher darin aufgelöst war. Wie in einem erkaltenden Wasser aufgelöste Substanzen zu Boden fallen, so fiel auch die aufgelöste Materie gleichsam zum Erdboden herunter. Das Wasser wurde frei, aus der Luft wurde die Materie herausgetrennt, Luft und Wasser bildeten sich.“ (R.Steiner 112:89, V : 6/28/1909).

*Now there came the time when by and by certain materials we need so much for our lives today, {namely} water and air, cleansed themselves from denser matter they {still} contained : separating to say so what had been dissolved earlier. The same as dissolved substances falling to the ground when water cools down : so dissolved matter fell to the ground as it were. The water was freed, matter was eliminated from the air, air and water building up.*

... in the world of plants ...

*"From the late <sup>1</sup> Cretaceous <sup>2</sup> on the earliest flower plants came up, showing that water, too, began separating from the Earth sphere <sup>3</sup> so that the Sun could shimmer through more and more."* (Bosse 2012, pg 107).

<sup>1</sup> [ > 66 million years ago ] , <sup>2</sup> [ 154 - 66 million years ago ] , <sup>3</sup> { *life sphere* }

... and in the animal world :

*"These reptile precursors, the saurians, may well characterize the life sphere of the Jurassic and Cretaceous <sup>1</sup>. They were poikilotherms, and the upright position, too, indicated the warmth organism internalizing, which is connected in man's development with the 'I' and the Luciferic impact. The reptiles let their eggs still be hatched by outside warmth ; the birds of the Cretaceous <sup>2</sup> had to hatch on their own. The huge bones of saurians' limbs and vertebrae have extremely thin-walled spongiosa and contain large air compartments inside. There were calculations that these skeletons still carried 50 tons of flesh ! Taken together with questions of nourishment and thermal balance, such phenomena characterize an air-water-sphere warmed through wherein air compartments in bones furnished buoyancy. So the primordial bird in the late <sup>3</sup> Jurassic was easily able to fly in an air-water-sphere although it still lacked the sternum where the muscles for flying insert. Concerning the Earth's higher atmosphere still in the Jurassic Rudolf Steiner calls the life sphere of flying saurians "fire air" (R.Steiner 347 : 9/20/1922). During the Mesozoic <sup>4</sup> the Earth was all warm and completely free of ice because of the air-water-sphere. This gives problems to theories about how were the polar areas and the ever returning ice ages."* (Bosse 2012, pg 106 f).

<sup>1</sup> [ 201,3 – 145 – 66 million years ago ] , <sup>2</sup> { however } , <sup>3</sup> [ > 145 million years ago ] , <sup>4</sup> [ 251.9 - 66 million years ago ]

Man's gestalt - as clouds are today ?

„Wenn Sie sich den damaligen Menschen so vorstellen würden, wie er heute ist, das heißt mit Fleisch und Blut, Knochen und Muskeln, dann würden Sie eine ganz falsche Vorstellung haben. Der Mensch von damals hatte eine weit flüchtigere, weichere Gestalt ; fast flüssig war alles. Das, was später zu Muskeln und Knochen geworden ist, hat sich erst im Laufe der Zeiten verhärtet. Wir kommen da in eine Zeit

*If you would imagine man {of late Lemuris} as he is today, i.e. with flesh and blood, bones and muscles, then you would be dead wrong. Man of that time had a far more fleeting, softer gestalt ; he was almost liquid. What came to be muscles and bones, hardened only in the course of time. We come back to the time {late Lemuris}*

*zurück, wo noch eine ganz andere Art der Menschheitsfortpflanzung war. Der Mensch lebte damals mehr in der Umgebung der Erde, die aber nicht wie heute reine Luft war, sondern die mit allerlei Dämpfen angefüllt war. Als eine wahre Luftgestalt lebte der Mensch da, und es zogen die äußeren Strömungen ein und aus. Es war beinahe so, als ob wir heute eine Wolke ansehen, die fortwährend ihre Gestalt ändert, nur etwas fester und bestimmter war die Gestalt des einstigen Menschen.“ (R.-Steiner 105:39 f).*

*when there was {even} a totally different kind of human reproduction. Man lived rather in the Earth's surroundings which was not however like today's pure air but filled with various sorts of steam instead. Man lived there as a true air gestalt, outside flows drafting in and out {of him}. It was almost like when we look at a cloud today changing its shape. Man's gestalt was just a bit more concrete and more definite then.*

Delor adds clarifying :

*"An air gestalt that of course lived in the air resp. the Lemurian protein atmosphere and nourished on it as well, (...)." (Delor 6:320).*

Man's souls ...

*„In dem Augenblicke, als der Mond die Erde verließ, waren ja auf der Erde die wenigsten Menschenseelen, die später verkörpert waren. Da waren ja die Menschenseelen verteilt auf die verschiedenen Weltenkörper. Während der letzten Lemurischen Zeit und der Atlantischen Zeit kamen diese Menschen-seelen herunter.“ (R.Steiner 112:89 , too).*

*When the Moon left the Earth there were very few human souls on Earth. They incorporated later as they were distributed all over various planets. They came down {to the Earth} during the late Lemurian and the Atlantic ages (> 66 million years ago - 11.7 thousand years ago).*

... were tackled by Luciferic beings.

*„Der Mensch würde ganz anders im Aufbau seines astralischen Leibes geworden sein, wenn die luziferischen Geister nicht an ihn herangekommen wären. Er würde dann nur Triebe entwickelt haben, die ihn mit Sicherheit geführt und nur vorwärts gebracht hätten. Die Geister würden ihn geleitet haben zu dem Anschauen der Welt in Gegenständen, hinter denen die geistigen Wesenheiten sichtbar geworden wären. Aber Freiheit, Enthusiasmus, Selbstständigkeitsgefühl und Leidenschaft für dieses Höhere würden ihm gefehlt haben. Der Mensch würde verloren haben das alte Hellseherbewusstsein. Die Herrlichkeit der Welt hätte er angeschaut wie eine Art Gott, denn er wäre ein Glied der Gottheit geworden. (...) der Mensch wäre eben nur wie ein großer Spiegel des Universums in seiner Vollkommenheit gewesen. -*

*Man's astral body would have been built up in quite a different way if the Luciferic spirits had not tackled him. He would just have developed drives that would have led him in safety, and only advancing. The {Moon} spirits would have led him towards looking at the world in objects behind which spiritual beings would have become visible. But freedom, enthusiasm, feeling self-dependent, and passion for what is higher, would have lacked him. Man would have lost his old clairvoyant consciousness. He would have looked at the splendor of the world as a kind of god because he would have become a member of the deity. (...) mankind would just have been like a huge mirror of the universe in perfection. -*

*Nun gossen die luziferischen Geister vor diesem Zeitpunkt in den astralischen Leib hinein Leidenschaften, Triebe, Begierden, die sich mit dem vereinigten, was der Mensch in sei-*

*Now {however} before this time <sup>1</sup> could have come up, the Luciferic spirits poured passions, drives, yearnings into the astral body, which connected to*

*nem Entwicklungsweg in sich aufnahm. Dadurch konnte er nicht nur der Sterne ansichtig werden, sondern zur gleichen Zeit dafür auf-flammen, Enthusiasmus entfachen und Leiden-schaft, nicht nur den vergöttlichten Trieben des astralischen Leibes folgen, sondern eigene Triebe entfalten aus seiner Freiheit heraus. Das hatten ihm die luziferischen Geister in seinen astralischen Leib hineingegossen. Aber damit hatten sie ihm zugleich etwas anderes gegeben : die Möglichkeit zum Bösen, zur Sünde. Die hätte er nicht gehabt, wenn er Schritt für Schritt von den erhabenen Göttern geführt worden wäre. Die luziferischen Geis-ter haben den Menschen frei gemacht, ihm En-thusiasmus eingepflanzt, aber ihm zur glei-chen Zeit die Möglichkeit der niederen Begier-den gegeben. Der Mensch hätte, bei einem normalen Entwicklungsgange, sozusagen mit einem jeglichen Ding die normalen Empfin-dungen verknüpft. So aber konnten ihm die Dinge der Sinneswelt mehr gefallen, als sie ihm hätten gefallen sollen. Er konnte mit sei-nem Interesse haften an den Dingen der Sin-neswelt. Und die Folge war, dass er früher, als es sonst geschehen wäre, in diese physische Verhärtung hineinkam.“ (R.Steiner 112:93 f, V : 6/28/1909).*

*what man took up in the way of devel-opment. So he could not only discover the stars but flame up enthusiasm and passions for them at the same time. He did not just follow the deified drives of the astral body, but in addition he could unfold drives of his own out of his free-dom. That is what the Luciferic spirits had poured into the astral body. At the same time, however, they had given him something else: the chance to be evil, sinful. That is what he would not have had if he had been led by the sublime {loving Moon} gods step by step. The Lu-ciferic spirits freed man, endowed him with enthusiasm, but endowing him with the chance of yearning for the base at the same time. With a normal course of development man would have connected the normal feelings to any-thing to say so. So, however, the things of the sensory world could please him more than they ought to have pleased him. He could stick to the things of the sensory world with {all} his interest. The consequence being that he hardened physically earlier than he would have done otherwise.*

<sup>1</sup> {before the time the loving Moon spirits could have developed man evolving towards the *spiritual world* without Luciferian spirits hindering them}

*A scientific-spiritual connection helps understanding the biblical tree of cognition :*

*„Der Mensch lebte in voller Unschuld über den physischen Vorgang des Geschlechtlichen ; das war für ihn in Finsternis gehüllt. Diese Wesen sahen ihn, wie ihn die Götter sahen, deshalb konnten sie an den Menschen herantreten und sagen : Ihr könnt werden wie die Götter, ihr braucht nur eines zu tun, ihr braucht nur eure Begierde bis in die unteren Regionen hinein zu erstrecken ; sobald eure Begierde sich in die tiefsten Regionen erstreckt, werdet ihr sehend wie die Götter ; wenn ihr das tut, dann werdet ihr eure eigene Gestalt sehen. -*

*Man lived in complete innocence of how sexuality was handled physically ; to him that was cloaked in obscurity. These {Luciferic} beings regarded him as the gods did, and so they could ap-proach man telling him : Thou canst become alike to the gods, all thou needst to do is thou just needst to ex-tend thy yearnings to the nether re-gions ; as soon as thy yearnings extend to the lowest areas thou shalt see as the gods do ; then thou wilt see thine own gestalt. -*

*Der Unschuldszustand wurde der Menschheit in gewisser Weise dadurch genommen. (...) We-senheiten, die zwischen Sonnenbewohnern und Erdenbewohnern stehend waren, die sich nicht das Anrecht auf die Sonne haben erringen kön-nen : die wollten den Menschen die Augen öff-nen ; sie traten als Verführer an die Menschen*

*That is how the state of innocence was taken from man in some way. (...) {spiri-tual} beings standing between inhabi-tants of the Sun and inhabitants of the Earth but had been unable to obtain the right to occupy the Sun, had in mind to open man's eyes {to him}, ap-*

*heran und sagten* : «Eure Augen werden aufgetan werden, und ihr werdet wissen, was gut und böse ist.» «Ihr werdet sehen, was um euch herum ist, und ihr werdet kennenlernen den Baum der Erkenntnis des Guten und des Bösen und den Baum des Lebens.»“ (R.Steiner 101:115 , VI : 13.11.1907).

*proaching man as seducers saying* :  
«Thine eyes shalt be opened up, and thou shalt know what is good or evil.»  
«Thou shalt see what is around thee, and thou shalt come to know the tree of cognition of what is good or bad, and the tree of life.»

That is how Steiner explains on a *spiritual-scientific* basis as far as the detail of the serpent what the bible conveys as an image :

«and they were both naked, the man and his wife, and were not ashamed. - Now the serpent was more subtil than any beast of the field which the Lord God had made. and he {!} said unto the woman, Yea, hath God said, Ye shall not eat of every tree of the garden ? - and the woman said unto the serpent, We may eat of the fruit of the trees of the garden : - but of the fruit of the tree which is in the midst of the garden, God hath said, Ye shall not eat of it, neither shall ya touch it, lest ye die. - and the serpent said unto the woman, Ye shall not surely die : - for God doth know that the day ye eat thereof, then your eyes shall be opened, and ye shall be as gods, knowing good and evil - and when the woman saw that the tree was good for food, and that it was pleasant to the eyes, and a tree to be desired to make one wise, she took the fruit thereof, and did eat, and gave also unto her husband with her : and he did eat. - and the eyes of them both were opened, and they knew t they were naked (...))» [KJV II:25 – III:7].

«Die beiden aber, der Mensch und sein Weib, waren nackt, und sie schämten sich nicht. Die Schlange war listiger als alles Lebendige des Feldes, das ER, Gott, gemacht hatte. Sie sprach zum Weib : Ob schon Gott sprach : Esst nicht von allen Bäumen des Gartens ... ! Das Weib sprach zur Schlange : Von der Frucht der Bäume im Garten mögen wir essen, aber von der Frucht des Baums, der mitten im Garten ist, hat Gott gesprochen : Esst nicht davon und rührt nicht daran, sonst müsst ihr sterben. Die Schlange auf sprach zum Weib : Sterben, sterben werdet ihr nicht, sondern Gott ist's bekannt, dass am Tag, da ihr davon esset, eure Augen sich klären und ihr werdet wie Gott, erkennend Gut und Böse. Das Weib sah, dass der Baum gut war zum Essen und dass er eine Wollust den Augen war und anreizend der Baum zu begreifen. Sie nahm von seiner Frucht und aß und gab auch ihrem Mann bei ihr, und er aß. Die Augen klärten sich ihnen beiden, und sie erkannten, - dass sie nackt waren. (...))» [Buber & Rosenzweig I:14 ff].

The underlined passages indicate the difference of both quotations. In the KJV - as well as in Luther's - man «shall be as gods, knowing good and evil {as just one example}», whereas in the original translation from the ancient Hebrew by Buber & Rosenzweig man will just «become as gods, {in so far as just} recognizing what is good or evil {as gods can do}». The verbal difference consists in the KJV and Luther using the future form of to be, in English «shall» and in German «werden» as an auxiliary verb, whereas Buber & Rosenzweig use «werden» as a main verb, a verb in its own right : in English «to become». We authors do not know which translation is more exact to ancient Hebrew. We just know that some esoterics, anthroposophists as well as Yeshayahu Ben-Aharon among them, tend to the KJV and Luther translation, interpreting that man will become as creative as God or gods. There is more Luciferic temptation in the KJV, Luther's and Ben-Aharon's understanding.

Finally the following biblical tribunal [KJV III:9–24 / Buber & Rosenzweig I:15 ff] ended. Because of Adam's and Eve's strife for cognition including their unwillingness to bear responsibility - «fall from grace» - [KJV III:1-13 / Buber & Rosenzweig I:14 ff], they were driven from paradise. A «flaming sword» [KJV III:24] / «Lodern des kreisenden Schwerts» [Buber & Rosenzweig I:17] may be parallelized with the late *Lemurian* fire storm (*Delor* 6:6) which may however be as easily called a late *Lemurian* Flood because of its double character (*Delor* 6:18). While Steiner speaks just of fire *Delor* calls it a double occurrence leading to *Lemuria's* destruction.

„Der Mensch ist also früher zu einer festen Gestalt gekommen, als es bei den göttlich-geistigen Wesenheiten sozusagen beschlossen war. Eigentlich hätte er in dem letzten Drittel der Atlantischen Zeit aus einer luftigen zu einer festen Gestalt heruntersteigen sollen. So aber ist er vor dieser Zeit heruntergestiegen

*So man came to a concrete gestalt earlier than the godly-spiritual beings had convened, to say so. Really he ought to have descended from a rather air-like gestalt to a concrete one {just} in the last third {from ~ 22 million years ago on} of the Atlantic time {age} (66 million years ago -*

*und ein festes Wesen geworden. Es ist das, was uns in der Bibel als der Sündenfall beschrieben wird. Das ist der luziferische Einfluss, der sich da geltend macht. Wir haben aber auch in den Zeiten, die wir jetzt betrachtet haben, hohe geistige Wesenheiten, die auf das Ich des Menschen wirken, das sie ihm geschenkt haben. (...) Sie halten ihre Hand schützend über ihn. Auf der anderen Seite aber sind jene Wesenheiten, die sich nicht aufgeschwungen haben, um auf das Ich zu wirken. Die wirken nun auf den astralischen Leib des Menschen und entwickeln in ihm ganz besondere Triebe.“ (R.Steiner 112:94 , V : 6/28/1909).*

*11.7 thousand years ago). So, however, he descended earlier becoming a concrete being. It is what the bible describes as the fall from grace. It is the Luciferic influence that makes itself felt there. In the times we have been dealing with there are however highly spiritual beings, too, working on man's 'I' which they had endowed him with. (...) They hold a protective hand over him. On the other hand however there are those beings that had not soared up to work on the {human} 'I'. From now on they are working on man's astral body developing very special drives in him.*

### **How does the end of Lemuris come about ?**

*„Böse Gelüste in der Seele des Menschen hatten eine sichtbare magische Naturwirkung, sie zogen die Kräfte des Feuers über und auf die Erde an, und der Mensch entflamnte die Naturkräfte durch seine bösen Gelüste, seinen magischen Willen. Heute blitzt es nicht mehr dadurch ; damals aber blitzte das Feuer durch die Luft, wenn die Menschen böse wurden. -*

*Evil lusts in man's soul had visible magical effects in nature. They attracted the forces of fire above and on the ground, and man ignited these forces of nature by his evil lusts, his will to do magic. In our days this does not lead to lightnings any more ; but at the time fire flashed through the air when man turned evil. -*

*Dadurch nun, dass Massen von Menschen böse wurden und der Mensch sich gar zu sehr dem Einfluss der luziferischen Wesen hingab, zum Bösen sich neigte, wurden auf den Kontinenten der Lemuria die Feuerkräfte entflammt, und die Lemuria ging unter durch die wütenden Feuermassen, durch die Schlechtigkeit eines großen Teiles seiner Bewohner.“ (R.Steiner 109/111:238 , XII : 6/10/1909).*

*Since masses of humans turned evil, man surrendering to the Luciferic beings' influence all too much, {and} bending to the evil : fire forces flamed up on the continents {} of Lemuria. Lemuria perished under the fierce fire masses because a large part of its inhabitants were evil.*

*„Der Mensch wirkte besänftigend auf das alles durch einen guten, und zerstörend durch einen bösen Willen. Ganze Inseln konnten zerschlagen werden durch den bösen Willen. So war durchaus des Menschen Wille im Einklang mit seiner Umgebung. Im Wesentlichen gingen die Ländermassen, in denen der Mensch damals gewohnt hat, durch den bösen Willen der Menschen zugrunde, und nur ein kleiner Teil der damaligen Menschen - hier müssen wir wieder zwischen Rassen- und Seelenentwicklung unterscheiden - rettete sich hinüber in den Zeitraum, den wir richtig beschreiben können, weil wir da aus unserer Sprache heraus Worte finden, die die hellseherische Wahrnehmung wiedergeben können. - Wir kommen nach die-*

*Man's good will calmed down everything, his evil will destroying everything. Intact islands could be smashed by his evil will. So man's will was indeed consistent with his surroundings. The land masses man lived in then, perished for the major part because of his evil will. Just a small part of people of the time persisted up to the time we can describe correctly {now} because {from now on} we can find words in our language rendering clairvoyant perception. Here we need to distinguish again between race development and soul development. - After this catastrophe we enter the old*

*ser Katastrophe in die alte Atlantische Zeit (...).“ (R.Steiner 104:126 f , VI : 6/23/1908).*

*„So wirken zwei Reiche in dem Menschen : Das Reich der luziferischen Geister und das der göttlich-geistigen Wesenheiten. Die göttlich-geistigen Wesenheiten führen den Menschen zum Menschen, aber durch die Blutbande. Die luziferischen Wesenheiten suchen zu trennen, suchen Mensch vom Menschen abzusondern. Diese beiden Kräfte wirken durch die Atlantische Zeit hindurch.“ (R.Steiner 112:96 f , V : 6/28/1909).*

### **Lemuris Ending**

It occurred because man evolving had himself occupied by Lucifer. Just a very small bunch resisted him, rescuing themselves onto *Atlantis*.

*„Nun war bei den niedriger stehenden Menschenarten der Lebensleib doch zu wenig geschützt, um den Einwirkungen des luziferischen Wesens genügend widerstehen zu können. Diese konnten die Willkür des in ihnen befindlichen Feuerfunkens des 'Ich' so weit ausdehnen, das sie in ihrem Umkreise mächtige Feuerwirkungen schädlicher Art hervorriefen. Die Folge war eine gewaltige Erdkatastrophe. Durch die Feuerstürme ging ein großer Teil der damals bewohnten Erde zugrunde und mit ihm die dem Irrtum verfallenen Menschen. Nur der kleinste Teil, der vom Irrtum zum Teil unberührt geblieben war, konnte sich auf ein Gebiet der Erde retten, das bis dahin geschützt war vor dem verderblichen Einflusse. Als ein solcher Wohnplatz, der sich für die neue Menschheit besonders eignete, stellte sich das Land heraus, das auf dem Flecke der Erde war, der gegenwärtig vom Atlantischen Ozean bedeckt wird.“ (R.Steiner 13:259 , IV).*

What does the *life sphere* look like about the end of *Lemuris* ?

*„Wir könnten also den Hergang von der Lemurischen in die Atlantische Zeit so charakterisieren : Da war die Erde ringsum bedeckt von dichten Nebelmassen, in denen die Rauchmassen der verschiedenen Substanzen, die sich später in die der Erdrinde verwandelten, noch aufgelöst waren ; und noch nicht bis zur physischen Verdichtung hatten es gebracht die artgemäßen Wesen, die dem hellsichtigen Bewusstsein sichtbar waren. Noch nicht war eingetreten, was man nennen kann eine Düngung des Erdbodens mit dem, was als Wasser in der Luft schwebte.*

*{early} Atlantic time {age} (from 66 million years ago on) (...).*

*That is how two realms are working in man : the realm of the Luciferic spirits, and the one of the godly-spiritual beings. The godly-spiritual beings lead people to each other; but through blood bonds. The Luciferic beings aim at dividing, they try to separate people from each other. These two forces work throughout the Atlantic time {age, from ~ 22 million years ago - 11.7 thousand years ago}.*

*Well, the life bodies {ether bodies} of lower kinds of mankind were guarded too little to be able to resist the Luciferic beings sufficiently. These were able to expand the despotism of the fire sparks of the 'I' inside themselves so far that they ignited powerful fire workings of a noxious kind. The consequence was a huge catastrophe on Earth. Because of the fire storms a large part of the ground inhabited at the time perished, and with it the people falling prey to error. Just a very small part of those partially untouched by error, could save themselves onto a territory on Earth that had been saved until then from the noxious influence. It so came about that such a space suitable especially for the new mankind, was a spot on Earth {Atlantis} which is covered by the Atlantic ocean in our time.*

*So we might characterize the transition {~ 66 million years ago} from the Lemurian time {age} (?720? - 66 million years ago) into the Atlantic one (66 million years ago - 11.7 thousand years ago) like this : The Earth was altogether covered with masses of fog wherein there were still dissolved the smoke masses of various substances that became part of the Earth's crust later on. Man visible to clairvoyant cognition had not densified physically {as far as matter} yet. The ground had not yet been fertilized to say so with what was floating in*

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Das trat später ein.“ (R.Steiner 122:181 , X : 8/25/1910).

the air as water. That is what occurred later {namely during the *Atlantic age*, 66 million years ago - 11.7 thousand years ago}.

Crude oil and natural gas were building up.

"Only at the transition from the Lemurian age to the Atlantic one <sup>1</sup> the protein part of the life sphere separated building up large crude oil and natural gas reserves (Bosse 2002, pg 450). More than 80 % of crude oil and 60 % of natural gas as well as huge oil shale reserves originated between the Jurassic <sup>2</sup> and the Tertiary <sup>3</sup> ." (Bosse 2012, pg 107 f).

<sup>1</sup> [66 million years ago ; Mesozoic → Cenozoic ; Cretaceous → [Tertiary] / Paleogene] ,  
<sup>2</sup> [201.3 – 145 million years ago, middle of the Mesozoic] , <sup>3</sup> [Paleogene + Neogene, 66 - 23.03 – 2.588 million years ago, almost all the Cenozoic]

"These unimaginably huge masses of crude oils and natural gases that came into the reservoir rocks during late Lemuris <sup>1</sup> and early Atlantis <sup>2</sup> , could never stem from plankton only. Why then did larger deposits not occur during other geologic times, too ? It is there that Rudolf Steiner's results of spiritual-scientific research are standing the test when he characterized the Earth's air-and-water-sphere as a protein sphere - long before had been known the amounts of crude oil and natural gas, or when they originated, nor how (...)." (Bosse 2012:109 f).

<sup>1</sup> [251.9 - 66 million years ago] , <sup>2</sup> {from 66 million years ago on}

Natural oils and gases originated from protein. - The airy-gaseous state we know from OLD SUN resp. Hyperboreis is a characteristic of the planetary development state or the age resp., not a chemical mixture.

**The 4<sup>th</sup> = Atlantic Age = Atlantis : Age of Fire, Gas, Water, and Matter.**

The 4<sup>th</sup> mineral-physical form state of the planetary development state of EARTH

Duration < 66 million years

Once again an overview, a corresponding excerpt from Tab. D.5.2. :

<b>PHANEROZOIC = eon of «visible life» [fossils] :</b>		<b>538.8 Ma up to today</b>
Cenozoic = era of «recent life» [mammals]		66 Ma up to today
<b>Atlantic age</b>		<b>66 Ma - 11.7 ka</b>
[Tertiary] [unused]		66 – 2.588 Ma
Paleogene «old parentage» [= Old Tertiary]		66 – 23.03 Ma
Paleocene «old unusual»,	<i>1<sup>st</sup> Atlantic epoch</i>	66 – 56 million years ago
Eocene «as unusual as dawning»,	<i>2<sup>nd</sup> Atlantic epoch</i>	56 – 33.9 Ma
Oligocene «rare unusual»,	<i>3<sup>rd</sup> Atlantic epoch</i>	33.9 – 23.03 Ma
Neogene «new parentage» [= New Tertiary]		23.03 – 2.588 Ma
Miocene «less unusual»,	<i>3<sup>rd</sup> + 4<sup>th</sup> Atlantic epoch</i>	23.03 – 5.333 Ma
Pliocene «more unusual»,	<i>4<sup>th</sup> Atlantic epoch = middle of Atlantis</i>	5.333 – 2.588 Ma
Quaternary		2.588 Ma up to today
Ice age = Pleistocene «the newest»,	<i>2<sup>nd</sup> half of Atlantis</i>	2.588 Ma – 11.7 ka
	Earliest homo erectus fossils, South Africa : mastering fire	1900 thousand years ago
	Earliest homo sapiens fossils	300 thousand years ago

Ma = million years ago

Tab. D.5.7. The Atlantic age.

**Naming :** The *Atlantic age* is named after **Atlantis**, «a fictional island mentioned in Plato's [428/427 - 348/347 BCE] works «*Timaeus*» and «*Critias*» <sup>1</sup> as part of an allegory on the hubris of nations. In the story, Atlantis is described as a naval empire that ruled all western parts of the known world, making it the literary counter-image of the Achaemenid Empire. After an ill-fated attempt to conquer "Ancient Athens," Atlantis falls out of favor with the deities and submerges into the Atlantic ocean. Since Plato describes Athens as resembling his ideal state in the Re-

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public, the Atlantis story is meant to bear witness to the superiority of his concept of a state.» [en.Wikipedia.org 10/24]. «Its site is hypothesized from Asia minor via the British Isles and north America, India, and the Malayan Sunda shelf as far as the Antarctica. The Atlantic ocean is named after *Atlantis*, too.» [Wikipedia.de 10/24].

<sup>1</sup> (Delor 1:216 f, 221 f, 244)

Did *Atlantis* exist physically ? - Esoterics are sure but they are the only ones. - Might it have existed ? - Indeed. Notch valleys, valleys formed like a V, originating by flowing water only, can be found under the sea level as deep as 5.000 m. This is understandable because from the Devonian [419.2 – 358.9 million years ago] on water precipitation poured down from the fog atmosphere into geosynclines. It could not however stay into the red-hot ocean basins as water evaporated in them. Only in the last third {< ~ 92 million years ago} of the Cretaceous [145 – 66 million years ago] did the earliest puddles of water fill the ocean ground (Delor 6:155). Already before that however rivers from the geosynclines may have eroded notch valleys parts of which are submerged nowadays. This can be found with every ocean and does not allow localizing *Atlantis*. - In the following pages we limit ourselves to Atlantis as Plato is presumed to have thought of, outside the columns of Atlas / Hercules, i.e. in the Atlantic ocean. Contemporary *clairvoyants* presume this *Atlantis* may have been in the Bahamas (Delor 1:224) , Thule (Delor 3:473) or south of the Azores (Delor 1:403 ff). It is presumed, too, to have existed as long as the *Atlantic age* : from ~ 66 million years ago (Delor 6:139) – 11.7 thousand years ago (Delor 4:151).

The environment conditions first :

*"I already hinted at a (...) liquid creative state necessary so that extensive and thick lignite seams could develop during the Old Tertiary [Paleogene, 66 – 23 million years ago]. Flower plants <sup>1</sup> developing during the late Cretaceous [> 66 million years ago, Mesozoic ending] indicate that at places there must already have existed somewhat fresh air. When comparing them with today's plants we can see that average temperatures during the Cretaceous [145 - 66 million years ago] {still} were something like 15 to 20 ° centigrade. As far as the New Tertiary [Neogene, 23 - 2.588 million years ago] the life sphere still caused a warm, well-balanced climate. Definite seasons are evidenced from then on only, i.e. from the beginning of ice ages at the middle {~ 33 million years ago} of the Atlantic age (66 million years ago - 11.7 thousand years ago). From then on there are evolving today's highly differentiated climate and weather situations. While these foggy smokes prevailed in the north, i.e. where the Atlantic human and mammal world developed predominantly, water might have poured down in the equatorial areas during the Jurassic [201.3 – 145 million years ago] already ; nearer to the poles this will have occurred as late as during the ice ages [Pleistocene, 2.588 million years ago - 11.7 thousand years ago]. This can be seen from the forms and terraces of valleys and sub-ocean canyons as well as from the sediments on the ocean floors and from glacier ice on Greenland and Antarctica. During the New Tertiary [Neogene, 23.03 – 2.588 million years ago] the steppes and the first deserts began expanding in central Sahara, north America, and Australia. In central Europe temperatures sank down to 9 ° centigrade on the average." (Bosse 2012, pg 110 f).*

<sup>1</sup> [nowadays assessed at the end of the Jurassic, ~ 150 million years ago already]

The *life sphere* died because its protein part separated.

*"After the protein part of the life sphere had separated there remained at the beginning of the Atlantic age (66 million years ago - 11.7 thousand years ago), of the Tertiary [Paleogene + Neogene, 66 - 23.03 - 2.588 million years ago], still a water-air sphere warmed thoroughly, characterized by Rudolf Steiner like this : 'The air became purer and purer, not like it is today but considerably purer. Only in a later state did it become a kind of water-air, permeated all the time by dense watery steams, by fog steams. In the early phases the air was basically purer because it was warmer. Later on it cooled down and was terribly foggy. Really there was a fog above the ground that never stopped, not stopping completely even under the Sun's influence ; it was a layer of fog.' (CW 347 : 9-20-1922)."* (Bosse 2012, pg 110).

**CENOZOIC** = era of « new animals» [mammals] [66 million years ago up to today].

**Tertiary** was the Earth's «3<sup>rd</sup> era» after the Paleozoic {Primarium ?}, the Mesozoic ("Secundarium"), and before the Quaternary. Tertiary is not recommended as a concept any more, the finer subdivision into «Paleogene» and

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«Neogene» being preferred. - The continental drift slowed down. - Eurasia had land bridges to north America from the Asiatic side as well as from the European one. This is worth mentioning because R. Steiner's *spiritual-scientific* visualizations hint at a settlement about the end {> 12 thousand years ago} of the *Atlantic age* (66 million years ago - 11.7 thousand years ago) to Eurasia as well as north America, e.g. in (*R.Steiner 114:90, IV : 9/18/1909*). This must have occurred ~ 9 – 6 thousand years BCE according to the linear solar time scale and fits ~ 70 – 10.3 thousand years on the logarithmic radiometric time scale (*Bosse 2002, pg 44 ; 2012, pg 36 ; 2015, pg 623* as well as in this book vol. I , part 4 . chapter I.1 «Diagram Excerpt : Comparative Chronological Table by D. Bosse»).

From now on the presentation here concentrates on fossil or cultural findings before all. The following condensation in note form of how man developed from a common ancestor of mankind and the other primates, mirrors the Darwinian view. Steiner's world view is different, mankind having been created first of all, and animals, plants, and minerals all are creatures that could not keep up with him. During *EARTH* however this development turned round, man being created last of them. In manifold imaginations a number of authors relate how man and ape may have touched in their developments. A condensed presentation can be found as a quotation from the internet in (*Delor 5a:14–18*). All these various cognitions have in common that they regard man originating from the *spiritual*, in esoterics, or from a physical evolution according to sciences. Both views lack evidence - the one because the *spiritual* can be proven physically just indirectly, i.e. depending on an interpretation of phenomena, and the other evidence : because we may disagree on the definition of in what man differs from other primates anatomically. - In our, the authors' thinking both views complement each other : One emphasizes *spiritual* aspects, the other one physical ones. Man is both and complements both of them within himself.

Below **the Atlantic Floods are colored**, and so are **the ice ages and the warmth ages** as well as the indications of **the world population, namely in gray**. - The primate phylogeny does not mention extinct branches on the way to man.

- **Paleogene** «old parentage » [formerly Old Tertiary] [66 – 23 million years ago, duration 43 million years] :
- - Paleocene «old unusual» [66 – 56 million years ago, duration 10 million years] (~ 1<sup>st</sup> *Atlantic epoch*). Up to ~ 68 million years ago the **Primates** split into those with a moist the tip of the snout, and those simple-nosed or dry-nosed, which split up to ~ 57 million years ago into Lemurs and Loris-formed.
- - Eocene «as unusual as dawning» [56 – 33.9 million years ago, duration 22 million years] (~ 2<sup>nd</sup> *Atlantic epoch*). Primordial whale enters the sea [~ 50 million years ago]. - Earliest primate fossils. - [Up to ~ 46 million years ago] the - moist-snout - **simians = anthropoids = higher primates** [all monkeys and apes] split into the **new world apes** = wide-nosed apes, and the **old world apes** = slim-nosed apes. These split [up to ~ 32 million years ago] into those with a tail, and those without = human-like ones.
- - Oligocene «rare unusual» [33.9 – 23 million years ago, duration 11 million years] (~ 3<sup>rd</sup> *Atlantic epoch*).
- **Neogene** «new parentage», [formerly New or Young Tertiary] [23 – 2.588 million years ago, duration > 20 million years] :  
From this time on the earliest fossils of prehumans and early humans were found. Correspondingly the archaeological discoveries are mirrored here more extensively.
- - Miocene «less unusual» [23 – 5.3 million years ago, duration 17.7 million years] (~ 3<sup>rd</sup> + 4<sup>th</sup> *Atlantic epochs*). [Up to ~ 20 million years ago] the man-like Old-World monkeys [= **hominoids**] split into Gibbons and apes [= **hominids**] which split [< 12 million years ago] into orangutans and **hominines**. Of these remain, after gorillas and chimpanzees split off, **man = hominins = homo sapiens** + the extinct prehumans.
- - - - Kenya: *Afropithecus turkanensis* «African ape from Lake Turkana» [up to ~ 17 million years ago].
- - - - Last huge meteorite impact [15 million years ago].
- - - - Last common ancestor of man and great apes [15 million years ago]. "*Friedemann Schrenk : 'Man does not originate from great apes but from a mix of them.' (...) In brother animal and brother man there are still rests of the other one.*" (Schad pg 156 f).
- - - - India: *Sivapithecus* «Ape of God Shiva» : Orangutan predecessor [< ~ 12 million years ago].
- - - - Germany : Pforzen near Kaufbeuren : *Danuvius guggenmosi* : upright walking man / ape ? [~ 11.6 million years ago] [Florian Rötzer : «Did the primates' upright walking develop in the Bavarian alps 12 million years ago ?», *Telepolis 11/7/2019* ; and Urs Willmann in *DIE ZEIT* No. 46/19 of 11/7/2019].
- - - - Hungary : Rudabánya : *Rudapithecus hungaricus* «Hungarian ape from Ruda» [~ 10 million years ago] : upright walking questionable as well.
- - - - northern Greece : *Ouranopithecus macedoniensis* «Macedonian ape from heaven» [~ 10 million years ago].
- - - - southern Greece : *Graecopithecus freybergi* «Grec ape» [~ 7.2 million years ago] : prehuman, because the roots of the molars are fused together as with man and not separate as with apes (*Delor 5b:124*).

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- - - - Chad : Sahelanthropus «Sahel man» tchadensis [ ~ 7 million years ago ] : prehuman with upright walking ?
  - - - - Kenya : Orrorin tugenensis «Fossil from Tugen», "Millennium Man" [ ~ 6 million years ago].
  - - Pliocene «more unusual» [5.3 – 2.588 million years ago, duration 2.7 million years]. Last polarity reversal so far of the Earth's magnetic field. - Early Pliocene : earliest high-lying valleys [little erosion] ; late Pliocene : earliest notch valleys [V-form : deep erosion and slope erosion in equilibrium] (Delor 6:155).
- (~ 4<sup>th</sup> *Atlantic epoch*, middle of *Atlantis* according to diagram (Bosse 2002, pg 36 as well as 44 , and 2015, pg 623 , furthermore here in vol. I , part 4 , chapter I.1 «Diagram excerpt : comparative timetable» - excerpt - : 15 thousand years BCE on the linear scale of Sun years correspond to ~ 2.3 million years on the usual radiometric, i.e. logarithmic time scale.))

*"The main part of water masses dropped during Young Tertiary [Neogene, 23 – 2.588 million years ago] and at the beginning of the Pleistocene [Ice Age, 2.588 - 11.7 thousand years ago] - or during the 4<sup>th</sup> and 5<sup>th</sup> Atlantic epochs. (...) Mainly the water masses separated during Pleistocene."* (Bosse 2012, pg 111).

- - - - Ethiopia : Ardipithecus ramidus «ground ape at mankind's root» [6 - 4 million years ago].
- - - - Kenya : Australopithecus anamensis «southern ape from lake Turkana» [4 million years ago].
- - - - Ethiopia : Australopithecus afarensis «southern ape from Afar» [3.8 – 2.9 million years ago], among them «Lucy» [3.2 million years ago]. - [ ~ 3,3 million years ago ] earliest tools.
- - - - South Africa : Australopithecus «southern ape» africanus [ ~ 3.2 – 2.1 million years ago ] : human shape : upright stature [Reichholf 1990 {!} , pg 34].

- - - - *1<sup>st</sup> Atlantic Flood [2,8 million years ago] (Delor 5a:171 f, 178).*

- **Quaternary** «4<sup>th</sup> age» [2.588 million years ago up to today, duration < 2.6 million years] : Just the earliest findings are mentioned. The time spans of such findings are considerable, documenting methodical or interpretative uncertainties. We may count with discussions and alternatives soon.
- - **Pleistocene** «the newest» = Ice Age [2,588 – 11.7 thousand years] (~ 2<sup>nd</sup> half of the *Atlantic age*).

*"(...) once again only spiritual-scientific research can help us to understand the proper causes of the phenomenon of the Quaternary ice age in the context of the Earth's all-over development. As the life sphere died man lost his abode. Later than the vertebrae, indeed as the last one of them, he built concrete bones and descended to the ground during the Young Tertiary [Neogene, 23 - 2.588 million years ago]. Rudolf Steiner describes and justifies more exactly (e.g. 13:260 , 267 , 270), how and why the Earth's life sphere was destroyed in connection with man and the effecting spiritual beings : 'It was Ahriman's influence before all that asserted itself in man so that a part of the Earth perished : Atlantis.' (CW 109, 6/10/1909). Man was able to use the forces of his soul 'working on the forces of the air and water at the same time. When the Atlanteans' will turned evil using these soul forces for egoistic purposes, they invoked the forces of the air and water at the same time unleashing them, and that is why Atlantis perished. The continents originated because the elements and man cooperated.' (CW 99, 6/4/1907) ; the continents 'originated' with today's shapes and landscapes. The 'Ahrimanic influence' helped perishing Atlantis as man's watery-airy living space when he still had a soft body - not as a 'continent' shrouded in legend : The Earth's crust crystallized for good, and the high mountain regions were lifted up. For mankind Atlantis perishing as man's life sphere was a development step before all in the direction of freedom, of thinking on his own, of 'I' consciousness along with perceiving the sensory world." (Bosse 2012, pg 118 f).*

*"During the last third {from ~ 33 million years ago on} of the Atlantic time {age} (66 million years ago - 11.7 thousand years ago) man's gestalt resembles today's more and more." (R.Steiner 103:113 , V : 10/23/1908).*

Although "*continents 'originated' "* and "*Atlantis perishing*" may be understood figuratively, too, Bosse and Steiner seem to have thought of physical extinction here - a scientific strife still going on. Wegener published his theory of continental drifts in 1912 and 1915, see in chapter D.7 scenario (E).

- - - {Primordial Pleistocene =} Gelasian, named after Gela, town on Sicily [2,588-1,806 thousand years ago, duration 782 thousand years].
- - - - BIBER COLD PERIOD {I} [2,588 – 2,400 thousand years ago] / Delor 5a:152 , 171 f : 2,800 – 2,400 thousand years ago.
- - - - Biber-Danube warm period {2,400 – 2,000 thousand years ago}.
- - - - Tiglien = Tegelen warm period [2,000 – 1,600 thousand years ago] / Delor 5a:172 : 2,400 – 2,000 thousand years

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- ago.
- DANUBE cold period {I} [2,000 – 1,820 thousand years ago] (Delor 5a:152 , 171 f).
  - Africa : Early Stone Age [ 2,600 - 130 thousand years ago ] : earliest wedges developing : at first choppers = precursors of fist wedges, sharpened just on one side [=/= bifaces].
  - East Africa : primordial man = Homo habilis / Homo rudolfensis [~ 2,500 - 1,8 thousand years ago].
  - South Africa : fire mastered [~ 1,900 thousand years ago].
  - East & south Africa : Telanthropus «man aimed at» capensis, ~ Atlanthropus mauritanicus in Muascar, Oran, Algeria, ~ Homo ergaster «working man» - with stone tools ?, ~ Homo erectus, from whom all the following **hominins** descend [from ~ 1,900 – 1,400 thousand years ago].
  - 2<sup>nd</sup> Atlantic Flood [2,000 thousand years ago] (Delor 5a:171 f. 178).
  - Early Pleistocene = Calabrian [1,806–781 thousand years ago, duration 1,026 thousand years].
  - Paleolithic [~ 1,800 thousand years ago, duration ~ 130 – 120 thousand years].
  - Early Paleolithic : fist wedges : in western Asia [1,800 thousand years ago] ; in the Near East [~ 1,600 thousand years ago], and in southern Europe [at least 1,200 thousand years ago].
  - Georgia : earliest proof of exodus from Africa [~ 1,800 thousand years ago].
  - BIBER cold period {II} [1,800 – 1,600 thousand years ago].
  - Danube-Günz warm period = Waal warm period [1,820 – 1,600 thousand years ago] (Delor 5a:152 , 171 f).
  - GÜNZ cold period [1,600 - 890 thousand years ago] (Delor 5a:152 , 171 f).
  - Biber-Danube warm period [1,400 – 1,100 thousand years ago].
  - Waal warm period = Günz-Mindel warm period [1,300 – 900 thousand years ago].
  - DANUBE cold period {II} [1,000 – 950 thousand years ago].
  - Early climate catastrophe ? : < 1 million years ago the world population shrank from ~ 100.000 individuals to ~ 1000.
  - Spain : Burgos : Sierra de Atapuerca : Homo antecessor [949 - 772 thousand years ago]. As far as we know today's humans and all their predecessors originated in the continental sink of east Africa. Europe was populated ~ 1 million years ago for the first time by prehuman and early human Homo antecessor via the Near East and afterwards by further developed branches of man [Reichholf 2012, pg 258].
  - 3<sup>rd</sup> Atlantic Flood [890 thousand years ago] (Delor 5a:171 f).
  - Cromer warm period [800 – 490 thousand years ago] / (Delor 5a:172 : 890 – 475 thousand years ago).
  - Peking : Sinanthropus «chinese human» pekinensis [770 ± 80 thousand years ago].
  - Middle Pleistocene = Ionian = Chibanian [781–126 thousand years ago, duration 605 thousand years] :
  - Mauer near Heidelberg, Germany : Branches ? of Homo heidelbergensis [> 760 thousand years ago], splitting genetically [~ 760 – 550 thousand years ago] : into Early Homo sapiens [e. g. Cro-Magnon man] and Pre-Neanderthals. These split [~ 470 – 380 thousand years ago] genetically into Denisova people and Neanderthals.
  - Günz-Haslach warm period [600 – 540 thousand years ago] : Homo erectus Steinheimer in **Europe** (Delor 5b:28). - Australopithecus Garhi in **South Africa** (Delor 5b:35).
  - HASLACH cold period [550 – 500 thousand years ago] : Homo erectus Steinheimer in **Europe** (Delor 5b:28). - Australopithecus Garhi in **South Africa** (Delor 5b:35).
  - Haslach-Mindel warm period [~ 480 thousand years ago] : Homo erectus Steinheimer in **Europe** (Delor 5b:28). - Australopithecus Garhi in **South Africa** (Delor 5b:35).
  - MINDEL cold period {D5a:152 , 172 : together with ELSTER cold period} [460 – 400 thousand years ago] : Homo erectus Steinheimer still in **Europe** (Delor 5b:28). - Australopithecus Garhi still in **South Africa** (Delor 5b:35).
  - Spain : Earliest findings of Neanderthals [430 thousand years ago] [Naica-Loebell 6/27/2016].
  - ELSTER cold period [400 – 320 thousand years ago] / Delor 5a:152 , 171 f : [475 - 340 thousand years ago] : **Atlantis** populated by Kushites and relations of Neanderthals.
  - 4<sup>th</sup> Atlantic Flood [ > 340 thousand years ago] (Delor 5a:171 f).
  - Holstein / Saale warm period = Mündel-Riss warm period in the Alps [340 – 325 thousand years ago] / (Delor 5a:152 , 171 f : 340 - 300 thousand years ago).
  - Morocco : earliest **Homo sapiens** [~ 315 thousand years ago] in the triangle between Marrakech, Assaouira, and Safi : Taza' : Jebel Irhoud.
  - SAALE-KOMPLEX = RISS cold period in the Alps [300 – 126 thousand years ago].
  - Germany : Lower Saxony : Schöningen : spears and boomerang precursors [at least 300 thousand years ago] [Urs Willmann, DIE ZEIT No. 13 / 20 of 4/23/2020].
  - 5<sup>th</sup> Atlantic Flood [300 thousand years ago] (Delor 5a:171 f).
  - China : Dali-Man [300 – 260 thousand years ago].
  - Africa : Middle Stone Age [300 – 50 thousand years ago].

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- Zimbabwe : *Homo rhodesiensis* [~ 300 – 125 thousand years ago].
- Morocco : Venus of Tan-Tan [100 mi north of Tarfaya on the coastal road] : *Homo erectus* : earliest statuette, processing controversial, estimated age 500 – 300 thousand years ago : possibly earliest work of art.
- Near East : on the Golan Heights : Venus of Berekhat Ram ; second earliest statuette, processing controversial, estimated age 280 – 250 thousand years ago : possibly second earliest work of art.
- *Middle climate catastrophe* : ~ 195 thousand years ago the world population shrank to a few hundred individuals.
- Europe : (*Delor 5a: 152 , 171 f*) : *Homo neanderthalensis* in **Europe** [200 – 40 thousand years ago] :
- Southern France : limestone circles out of stalactite parts in caves [176,5 thousand years ago] [Naica-Loebell 2-25-2018].
- Eem-/ Riss-Würm warm period [128 – 115 thousand years ago].
- Croatia, Italy, and Crimea : Neanderthals [on Crimea up to ~ 30 thousand years ago].
- Expanding over all of Asia : Denisovan human, in the Altai mountains [Siberia] together with *Homo sapiens* and Neanderthals [up to at least ~ 30 thousand years ago].
- Late Pleistocene = Tarantium [126–11.7 thousand years ago, duration ~ 114 thousand years] :
- Middle Paleolithic : Cleaver knives [ > ~ 130 – 120 thousand years ago] :
- Spain : perforated / colored mussels [120 – 115 thousand years ago].
- **6<sup>th</sup> Atlantic Flood [115 thousand years ago] (*Delor 5a:171 f*).**
- *WEICHSEL-I- cold period [115 – 49 thousand years ago] (*Delor 5a: 152 , 171 f*).*
- Java : Sumbingmacan : *Homo erectus* [~ 100 thousand years ago] (*Anthropopithecus* «man-ape» (Haeckel)).
- Near East : Carmel Mountain near Haifa : perforated mussels in graves, interpreted as grave decoration [~ 100 thousand years ago] [Naica-Loebell 6/28/2006].
- north Africa : Oued Djebbana near Tebassa, Algerian-Tunisian border : perforated mussel [~ 95 thousand years ago] [Naica-Loebell 6/28/2006].
- South Africa : Blombos Cave : perforated mussels with rests of paint [~ 75.ka] [Naica-Loebell 6/28/2006].
- South Africa : Pinnacle Point Cave 13 B : lines of red ochre some of which cross each other, painted on a small fragment of silcrete [a superficial quartzite formed by the cementation of rock fragments (such as soil, sand, or gravel) by silica] [~ 73 thousand years ago] / (*Delor 5a:191: 164 thousand years ago*).
- *Sumatra : Late climate catastrophe* : < 70 thousand years ago a volcano eruption lowered temperatures by ~ 18 ° centigrade.
- South Africa : Diepkloof Rock Shelter : patterned line drawings on ostrich eggs used as water containers : earliest proof of human symbols [~ 60 thousand years ago].
- northern Spain, Cantabria : La Pasiëga cave : hand-prints and ladder drawings on cave walls [ > 66 – 64 thousand years ago] [Naica-Loebell 2/25/2018].
- Indonesia : Flores Island : *Homo floresiensis* [ > 60 thousand years ago], and on Sulawesi & Borneo : figurative depictions : hand negatives [52 – 40 thousand years ago] ; on Sulawesi : depiction of a hunt with animal-headed bipeds [44 thousand years ago] [Naica-Loebell 11/8/2018 and 12/15/2019].
- *Ainus migrating on foot from Europe → Porcupine Island [west of Ireland, north Atlantis] : 55 thousand years ago ; and from Europe → Canada along the ice edge : 51 thousand years ago (*Delor 3:347 f*).*
- Germany : Harz Mountains : Unicorn Cave : earliest work of art by Neanderthals in Europe : carved toe bone of a giant stag [~ 51 thousand years ago].
- *Weichsel / Würm pause [49 – 23 thousand years ago] (*D5a:152 , 171 f*).*
- Africa : Later Stone Age [beginning ~ 50 thousand years ago].
- **7<sup>th</sup> Atlantic Flood [43 thousand years ago] (*Delor 5a:171 f*).**
- East Alaska : Yukon Flats National Wildlife Refuge : on an island in the Porcupine River : fossil animal bones with scratch marks aged ~ 42 - 25 thousand years, which could not stem from animal teeth. This finding contradicts the interpretation below, valid so far, that man could traverse the Bering Strait only ~ 12 thousand years ago because the sea level had lowered during the ice age. Both findings taken together support Steiner's indication (*112:109 , VI : 6/29/1909*) of the Atlanteans' exodus westward to north America.
- Late Paleolithic in Europe : long narrow stone blades and stone knives [~ 42 thousand years ago] (*Delor 3:298*).
- northern Spain : cave paintings : Cantabria : El Castillo cave [~ 42 thousand years ago] : earliest hand negatives [40 thousand years ago], earliest cave paintings [35.4 thousand years ago] in Europe [Naica-Loebell 10-11-2014] (*Delor 3:324*).
- Germany : Swabian Alb : flutes, Venus sculpture, Lion-man sculptures : proof of music, art, cult [ ~ 42 thousand years ago].
- Belgium : earliest findings of Neanderthals in western Europe [~ 41 thousand years ago] [Naica-Loebell 3/10/2021].
- Southern Europe : Cro-Magnon man = ice age : earliest **Homo sapiens in Europe** [40 – 12 thousand years ago] : wolves domesticated for drive hunting for game [~ 40 thousand years ago] [Mühlbauer 7/6/2018], grain

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- porridge with nomads in Apulia [Italy] [~ 32 thousand years ago] [Mühlbauer 7/18/2018].
- - - - - Western, central, southern Europe : Aurignacien culture / time : Neanderthals & Homo sapiens [~ 40 – 31 thousand years ago] / *Lion-man sculpture* (D3:294 , 298) ; *earliest ivory carvings 37.1 thousand years ago* (Delor 3:308).
  - - - - - South west France : Périgordien culture / time : Lascaux cave paintings [~ 40 – 21 thousand years ago] (Delor 3:335) with the cave painting of a bird flying away from a injured man, interpreted to picture a soul leaving the body [dated 17 thousand years ago] (Harald Lersch 2025).
  - - - - - Western, central, southern Europe, Siberia : Gravettien culture / time [~ 37 – 26 thousand years ago] : cave paintings : Ardèche : Chauvet cave [~ 37 thousand years ago] [DIE ZEIT 52/19]. / *Venus sculpture* (Delor 3:295 ff).
  - - - - - (D5a:172 : *WEICHSEL-II cold period* [23 – 10,969 thousand years ago].)
  - - - - - South west France → Iberian peninsula and middle Europe : Magdalénien culture / time [~ 18 – 12 thousand years ago] : cave paintings : Dordogne : Cascaux cave [19 – 17 thousand years ago] and Rouffignac cave [18 - 12 thousand years ago], Cantabria : Altamira cave [18,5 – 15 thousand years ago] / (Delor 3:335 : ~ 9 thousand years ago).
  - - - - - South Africa : Hofmeyr skull : anatomically modern human skull [36 thousand years ago].
  - - - - - Central Siberia : Shishkina near Kachug [Irkutsk] : rock paintings [20 – 15 thousand years ago] (Delor 3:322).
  - - - - - Near East : Jordania : Man sedentary [~ 17 thousand years ago], bread baking [~ 14.4 thousand years ago] [Mühlbauer 7/18/2018].
  - - - - - *South America : Bolivia : Tiahuanaco : Megaliths and geoglyphics* [= lines on the ground forming extensive figures] [14 thousand years ago](Delor 1:183).
  - - - - - Central Europe : Man sedentary [~ 10 thousand years ago] [Mühlbauer 7/18/2018].
  - - - - - Fertile Crescent , western part : Israel, Lebanon, Syria : Kebarien / Natufien / Khiamien : cultures named after caves in Israel showing in-between states of hunter-gatherers / farmers [~ 14 - 11.5 thousand years ago].

Physical man developed his shape up to the end of the *Atlantic Age* (66 million years ago - 11.7 thousand years ago).

### The 5<sup>th</sup> = *Post-Atlantic Age* : Age of Fire, Gas, Water, Matter, and Consciousness

*on the linear Sun scale 7277 BCE - 7893 CE :*

*Duration so far 9249 years [= 61 %] of 15120 years (= 7 culture epochs of 2160 years each)*

Its beginning corresponds to almost 12 thousand years on the radiometric-logarithmic time scale, see the diagram from *Bosse, 2002 pg 44 ; 2012 pg 36 ; 2015 pg 623* {here in vol. I, part 4, chapter I.1 }.

Once again an overview, a partial excerpt of Tab. D.5.2. :

<b>PHANEROZOIC</b> = eon of «visible life» [fossils] :		<b>538.8 Ma up to today</b>
Cenozoic = era of «recent life» [mammals]		<b>66 Ma up to today</b>
Quaternary		<b>2,588 ka up to today</b>
Post-glacial period = Holocene «totally new»		<b>11.7 ka up to today</b>
<b><i>The Post-Atlantic Age</i></b>		<b><i>11.7 ka up to the future</i></b>
<i>The 5 Post-Atlantic cultural epochs so far (out of 7)</i>		<b><i>in linear Sun years :</i></b>
<i>The 1<sup>st</sup> = primordial-Indian cultural epoch</i>		<b><i>7277 - 5067 BCE</i></b>
<i>The 2<sup>nd</sup> = primordial-Persian cultural epoch</i>		<b><i>5067 - 2907 BCE</i></b>
<i>The 3<sup>rd</sup> = Assyrian-Babylonian-Chaldean-Egyptian-Hebrew/Jewish cultural epoch</i>		<b><i>2907 - 747 BCE</i></b>
<i>The 4<sup>th</sup> = Greek-Roman cultural epoch</i>		<b><i>747 BCE - 1413 CE</i></b>
<i>The 5<sup>th</sup> = the present = Anglo-Saxon-Teutonic cultural epoch</i>		<b><i>1413 - 3573 CE</i></b>

'ka = thousand years ago ; Ma = million years ago

*Tab. D.5.8. The Post-Atlantic age.*

Continuing the development times :                      Platon's Atlantis perishing ~ 11.5 thousand years ago (Delor 1:192).

- **Holocene** «totally new» = post-glacial period [11.7 thousand years ago up to today] :

- - - - - The peoples from Ural and Altai cross [~ 12 thousand years ago] the Behring straight on foot and populate America. - Multiple climate-induced mass migrations furrow [~ 14 – 12 thousand years ago, 10 thousand years ago, 6200 ya] through northern Asia, the Near East, and Europe more severely than what we are calling mass migrations for Early Middle Age Europe [Reichholf 2012, pg 258].

- - - Neolithic = Late Stone Age : in the Near East : livestock farming and agriculture [~ 12 thousand years ago].

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- South Anatolia: earliest temple-like place of worship Göbekli-Tepe [11.7 thousand years ago].
- Anatolia : goats, sheep domesticated [~ 11 thousand years ago], pigs [~ 10.5 thousand years ago] (Delor 1:169).
- Africa : northern Africa : beans cultivated [~ 11 thousand years ago], goats, sheep domesticated [10.5 – 10 thousand years ago] (Delor 1:169), → Europe [8 – 7.8 thousand years ago] (Delor 1:170).
- Egypt and Algeria : reed boats [from 9 thousand years ago on] → worldwide [8 – 7 thousand years ago] (Delor 1:180 f).
- Europe : domesticated : goats, sheep, cattle, pigs [~ 12 – 9 thousand years ago] [Mühlbauer 7/18/2018].
- 8<sup>th</sup> Atlantic Flood [10,969 years ago] (Delor 5a:171 f).
- Central Asia : Mongols : horses : domesticated [~ 9 thousand years ago], ridden [~ 8.5 thousand years ago] (Delor 3:164).
- East Asia : earliest handling - of gold : in India [~ 9 thousand years ago], - of silver : in Persia [~ 8.3 thousand years ago], - of copper : in Indonesia [~ 5.5 thousand years ago], - of bronze : in China [~ 5 thousand years ago] (D3:155).
- Middle Stone Age = Mesolithic in central Europe : small arrowheads [~ 9.6 thousand years ago].
- Southern Europe : agriculture [~ 10 thousand years ago] [Mühlbauer 7/18/2018] (Delor 3:63 : ~ 8 thousand years ago).
- Eastern Europe : early Scythes = Indo-Europeans migrate from Persia → Ukraine, bringing early livestock farming and agriculture: cattle, sheep, goats, pigs, grains : ~ 8,6 thousand years ago (Delor 3:63 , 149 , 152).
- Bosphorus breaks, Black Sea fills up [~ 8 thousand years ago] (Delor 3:152) → mass migrations → e.g. to Europe.
- Megalith culture La-Hoguette migrates from Morocco → western Europe as far as north of Hamburg, bringing livestock farming : sheep, goats [~ 7.8 thousand years ago] (Delor 3:152).
- Europe : central Europe :
- Linear Pottery culture [~ 7.6 – 6.9 thousand years ago], coming from the east up the Danube river [7.6 – 7.5 thousand years ago] (Delor 1:170) : agriculture in Europe (Delor 3:63 , 152) ; domesticated : chicken [~ 8 thousand years ago], horses [7 – 5 thousand years ago] [Mühlbauer 7/6/2018], cattle (Delor 1:171).
- Rössen culture [6.8 – 6.55 thousand years ago] (Delor 3:152).
- Megaliths from England → northwestern Europe, south Scandinavia [~ 6,6 thousand years ago] (Delor 3:152).
- Michelsberg culture [6.4 – 5.5 thousand years ago] (Delor 3:152).
- Eastern Europe : Scythes migrate up the Danube river [6,4 – 6,2 thousand years ago] ; as well as to China [5.9 thousand years ago]. (Delor 3:153).
- Central, northern, northeastern Europe : Funnel Beaker / Megalith culture [6.2 – 4.8 thousand years ago], → England, Ireland, Scotland [~ 6.1 thousand years ago]. (Delor 3:152).
- Central, eastern Europe : Corded Earth Ceramics / Battleaxe culture [Scythes] [4.8 – 4.2 thousand years ago] (Delor 3:100 , 153).
- Central, western Europe : Bell Beaker culture [4.6 – 4.2 thousand years ago] (Delor 3:153).
- Bronze Age in the Near East and Greece [from ~ 5 thousand years ago on] [bronze = 90 % copper +10 % pewter].
- Bronze Age in southern central Europe [4.2 – 2.8 thousand years ago].
- Iron Age in southern central Europe [~ 800 BCE up to the 1<sup>st</sup> century CE].
- Iron Age in northern central Europe [~ 750 BCE up to the 5<sup>th</sup> century CE].

### The Atlantic mass migrations ...

*„Als die Atlantische Katastrophe nach und nach über die Erdenverhältnisse hereinbrach, zogen die Menschen, welche damals auf dem alten Atlantischen Kontinent wohnten, von dem Westen nach dem Osten. Im Wesentlichen waren bei diesem Zuge zwei Strömungen vorhanden : eine Strömung, welche sich mehr im Norden bewegte, und eine andere, die mehr einen südlichen Weg nahm. Daher haben wir eine große Menschheitsströmung von Atlantischer Bevölkerung, welche durch Europa hindurch bis nach Asien hinüberging, und wenn man das Gebiet um*

*When the Atlantic catastrophe {up to the last part, the 8th Atlantic Flood ? [10,969 years ago] (Delor 5a:171 f)} gradually broke in onto the Earth, people who lived on the old Atlantic continent {Atlantis} migrated eastward. There were mainly two migratory routes : one rather in the north and the other rather in the south. So we have a main migration route of Atlanteans going through Europe as far as Asia. When considering the region of the*

*den Kaspisee herum in Betracht zieht, hat man ungefähr die Art, wie sich dieser Völkerzug der Atlantischen Bevölkerung ausbreitete. Ein anderer Strom ging dagegen durch das heutige Afrika hindurch. Und in Asien drüben entstand dann eine Art von Zusammenströmen dieser beiden Züge, wie wenn sich gleichsam zwei Ströme treffen und einen Wirbel bilden.“ (R.Steiner 123:19 , I : 9/1/1910).*

*Caspian Sea we can have just about a notion of how the Atlantic people's {northern} migration route widened. A different {namely southern} route passed through today's Africa. Then the two routes kind of merged in Asia like two rivers meeting and whirling.*

... can be recognized in contemporary clairvoyance ...

*"Europe's primordial population consisted of three huge tribes : the Ainus, the Huns, and the Cro-Magnons (...). As the fourth one (...) we may add the Kushites / Megaliths coming from Morocco on two different routes, on water and on land.*

*There were two different roots to the Indo-Europeans - a mix of Huns and Ainus - converging however already in what we may call 'primordial Persia'. There was indeed biblical Japheth [a son of Noah held to be the progenitor of the Medes and Greeks] at the origin of one root. Together with a tribe of the Ainus he founded the enigmatic place of worship Göbekli Tepe in Anatolia (...). In Göbekli Tepe cattle domestication began for the first time in the world. These Japheth-Ainus migrated from Anatolia to primordial Iran where they mixed with the Aryas and the Huns living there. These Huns cultivated kinds of grain and many other nutrition plants (...).*

*The Aryans on the other hand - Ainus, too, but mixed with Huns and Cro-Magnons already - came {to primordial Persia} from the Black Sea via Afghanistan, Pakistan, Kyrgyzstan, Uzbekistan. Originally they had migrated {eastward} from Porcupine-Island off Ireland's west coast right through Europe and Russia. It was them who brought the Indo-European language. That is how the "primordial Persian culture" originated as a center of the agriculture impulse coming to life in all the Orient (Neolithic) which poured out 6000 BCE by Thubal via Anatolia and Greece (...). The Indo-European Medes, Persians and Parthians, Hittites and Ionians all of them descended from the primordial Persians.*

*A part of these primordial Persians, however, was led as early as 6600 BCE via the Caucasus Mountains into Ukraine by the hero Rostam (...). There they mixed with further Huns, and from now on we may speak of 'early Scythes'. From Ukraine these highly belligerent primordial Scythes / Indo-Europeans push forward to central, western, and northern Europe : 5500 BCE as so-called Linear Pottery culture, bringing agriculture to Europe via the Danube river (...). The Balts and the Slavs stem from them - after mixing with the earlier European population. ~ 3000 BCE the Corded Earth Ceramics / Battleaxe come from Ukraine, too, via Poland. After mixing with the earlier peoples the Celts, Germanics, Archeans, and Dorians can be derived from them." (Delor 3:62 ff).*

*"Evidently the Persians bring the best requirements for developing agriculture because people of the northern migration route {from Atlantis} are oriented towards the outside world by all their physique (...)." (Delor 3:171).*

1

... and once again Steiner's clairvoyance adds :

*„Was hier auf der Erde herum wandelte : das war gewiss in der Seelenverfassung tierähnlicher, aber diese Tierleiber der Menschen wurden gebraucht von den geistig-seelischen Wesenheiten, die sich dafür sehr als Angehörige der übersinnlichen, vor allem der kosmischen Welten fühlten. Und man kann sagen : Wenn man nur weit genug zurückgeht, etwa in das 5. vorchristli-*

*What migrated on Earth {in this 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> millennium {BCE}}, certainly was closer to animals in their souls, but man's animal bodies were used by the spiritual-psychic beings who in return thereby felt like members of the supersensible worlds, of the cosmic worlds before all. We may say :*

*che Jahrtausend, so waren die Menschen so, dass sie tierische Leiber mehr als Instrumente benutzten, denn dass sie sich in ihnen drinnen fühlten. (...) Wenn diese Menschen wach waren, so gingen sie allerdings wie die Tiere mit einem instinktiven Seelenleben herum, aber es schien hinein in dieses instinktive Seelenleben etwas wie Träume aus ihrem Schlafzustand, wie Wachträume. Und in diesen Wachträumen erkannten sie, wie sie herunter gestiegen waren, um die Tierleiber nur zu benützen. Das, was da wirklich innere menschliche Seelenverfassung war, das ging dann über als Kultusanschauung, als Kultushandlung (...). (...) Der Mensch fühlte etwa seine Seelenverfassung so, dass er sich sagte : 'Bin ich nachts außerhalb meines Leibes, so gehöre ich dem an, was die Kräfte des Kosmos, des Sternenhimmels sind, wache ich des Morgens auf, so bediene ich mich des tierischen Instinktes in einem tierischen Leibe.' -*

*Dann kam, man möchte sagen, in einer gewissen Weise eine Zeit der Dämmerung über die menschliche Entwicklung. Es war ein dumpfes, stumpfes Menschheitsleben, in dem die kosmischen Träume mehr zurückgingen, in dem das instinktive Leben die Oberhand gewann. Bewahrt wurde dasjenige, was früher menschliche Seelenverfassung war, durch die Mysterien, hauptsächlich durch die asiatischen Mysterien. Aber die allgemeine Menschheit, insofern sie nicht erfasst wurde durch die Mysterienweisheit, lebte ein mehr oder weniger dämmerhaftes, stumpfes Leben dahin im 4. bis zum Beginn des 3. Jahrtausends. Man kann sagen : Das allgemeine Leben war in dieser Zeit, im 4., im Beginn des 3. Jahrtausends vor dem Mysterium von Golgatha, über die asiatische und die damals bekannte Welt hin ein dämmeriges Seelenleben, ein instinktives Seelenleben. Aber es waren die Mysterien da, in denen durch die wirksamen Zeremonien die geistigen Welten wirklich herein wirkten. Und von da aus wurden dann die Menschen wiederum erleuchtet.“*  
(R.Steiner 193:183 f, X : 11/4/1919).

*When going back far enough, into about the 5<sup>th</sup> millennium BCE, humans did not feel so much inside themselves, they rather used their animal bodies as instruments. (...) When these humans were awake they followed an instinctive soul life as animals do. But something shone into this instinctive soul life like dreams from the state of sleep, like waking dreams. In these waking dreams they recognized how they had descended just to use the animal bodies. What really was inner human soul, transitioned to cultural attitudes, cults, (...). (...) Man felt his soul something like : 'When I am outside my body at night I am part of the cosmic forces, {i.e.} of the stars ; {but} when waking up in the morning I use animal instincts in an animal body.' -*

*Then a time of dusk we might say came over man's development in some way. Man's life was dull, obtuse. Cosmic dreams dwindled, {and} instinctive life gained the upper hand. What had been the human state of mind before, was preserved by the mystery sites, especially so by the Asian ones. The general public, however, {i.e.} as far as it did not join the wisdom of mysteries, lived lives that were more or less dull, obtuse during the 4<sup>th</sup> century {BCE} and as far as the 3<sup>rd</sup>. We may say : All over the Asian world and the world known at the time general life was an obtuse soul life during the 4<sup>th</sup> century {BCE}, {i.e.} earlier than the mystery of Golgotha, {and} up to the beginning of the 3<sup>rd</sup> one. There were, however, the mystery sites where the effective ceremonies had the spiritual worlds working {into people's souls}. This was indeed what enlightened people once more.*

**The Post-Atlantic age** is the 5<sup>th</sup> mineral-physical form state of the stage *EARTH* of the planetary development.

Clear day consciousness or waking consciousness arose, see in vol. I, part 3 chapter F.2 . It will take us 7 cultural epochs (described in *R.Steiner 103:154–166, VIII : 5/27/1908*) to develop the individual 'I'. We might observe that we are still moved - in degrees - by the 'I's' tendencies we had thought overcome long since.

During the 1<sup>st</sup> **cultural epoch**, the **primordial Indian** one, from 7227 - 5067 BCE [- 700 - 70 thousand years ago on the logarithmic radiometric time scale used], the time of the Holy Rishis of the Vedas, people still prevailed yearning for the

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connection to the *spiritual world*. This connection, however, decayed gradually. The physical world was still rejected as "Maya", illusion.

During the **2<sup>nd</sup> cultural epoch**, the *primordial Persian* one, from 5067 - 2907 BCE [~ 70 - 2.9 thousand years ago on the logarithmic radiometric time scale used], still long before the several Zarathustras, the physical world was observed more and more. It was felt to be the battlefield between benevolent *spiritual* forces ("Ormuzd") and evil ones ("Ahriman"). At least man could ally with the benevolent forces, and strike back against the evil ones with his own strength. The sciences, search for contexts of physical phenomena, did not appear yet.

During the **3<sup>rd</sup> cultural epoch**, the *Assyrian-Babylonian-Chaldean-Egyptian-Hebrew / Jewish* one, from 2907 - 747 BCE, the desire intensified to decipher the gods' will when observing the stars and planets, and their reiterations. Calculations, calendars, and oracles arrived with the priesthood whose urge to explore initiated astrology. Still there were rests of *spiritual* wisdom in pharaonic times in animal-headed gods' gestalts as they were not felt to be humans. - In man the *sentient soul* originated, i.e. acting spontaneously according to momentary inspirations.

The **4<sup>th</sup> cultural epoch**, the *Greek and Roman* one, from 747 BCE - 1413 CE, comprised antiquity and all the Middle Ages. Man found himself in so far that - in ancient Greece already - he featured the ideal form, presuming the gods had human shape and behaved like humans. Yet in ancient Greece, too, the state valued still more than the individual. 'ho idiotos' is a private person. Only during Roman times did the first individual civil law come up, to be recognized e.g. with the earliest individual last wills. - Man discovered the *reasoning and mind soul*. - This cultural epoch is the middle one of the *Post-Atlantic age*. The Christ appeared. He could not have come earlier because man had not developed yet as far as to have the mind coping with the Christ's coming. Christ could not have come later, either, because man's thinking would have progressed into material thinking so far that he could not have perceived the Christ's coming, nor could man have developed from this point.

During the **5<sup>th</sup> cultural epoch**, ours, the *Anglo-Saxon-Germanic* one, from 1413 - 3573 CE, since just about the Italian renaissance, man deals increasingly with the material world, researching, systemizing, and limiting himself to it. The sciences gain in general respect until it is them only that are valued. This is the situation Steiner lived in. At the same time however man is developing the *consciousness soul*. Nowadays, a century after Steiner, *Michael's age* enters general consciousness by and by as Steiner had previewed. See vol. I, part 3, chapter F.4. Steiner had claimed the beginning of *Michael's age* at the last third of the 19th century, i.e. in his generation. So far we have been using up about half of *Michael's age*, and ~ 28 % the 5th cultural epoch. Will we know how to use the rest ?

Our *cultural epoch* mirrors the 3<sup>rd</sup> one under different conditions. We might see stressing the sciences nowadays in this light, too.

In a similar way the 6<sup>th</sup> *cultural epoch*, from 3573 - 5733 CE, will mirror the 2<sup>nd</sup> *cultural epoch*, and the 7<sup>th</sup> one, from 5733 - 7893 CE, the 1<sup>st</sup> one. The 6<sup>th</sup> one is called the *Slav cultural epoch*, and the 7<sup>th</sup> one the *American* one. Most probably the *Slav cultural epoch* will not be based on socialism, and the *American* one not on today's colonists stemming from Europe.

Then the *Post-Atlantic age* will end. There is said to be a war waged against each other.

Finally let us come to the question underlying our original one :

### What Does Define Man of Today ?.

Let us consider the anatomic criteria first.

In 2018 joint bones dated back to 11.6 million years ago were found in the Bavarian mountains [Allgäu mountains, in Pforzen near Kaufbeuren]. The bearing areas of joint surfaces showed : Those living beings walked upright. Was «Danuvius guggenmosi», called 'Udo' after Udo Lingenberg, human or an ape walking upright ? [Florian Rötzer : «Did Primates' Walking Upright Develop in the Allgäu Mountains 12 million years ago ?», Telepolis 11-7-2019 ; and Urs Willmann in DIE ZEIT No. 46/19 of 11-7-2019].

A diagram came up - here Fig. D.5.6. «Becoming human ?» - leaving the interpretation open. Although the discoverer was convinced to have found the earliest human so far. This diagram can be used with coming discoveries because it does not fix a line between man and ape and could be interpreted differently then.

## D.5. During EARTH : Details

«Danuvius guggenmosi» did not find recognition with the scientific community yet. Before all because a skull base could not be found. If the «large occipital hole», where the brainstem connects the brain to the spinal cord, were situated more to the front, in the direction of the face, then this would be an important hint at evolutionary upright walking. In spite of additional anatomic indications we cannot yet see Danuvius walking on two legs, i.e. call him an prehuman or an early human. Otherwise this would be a revolution.

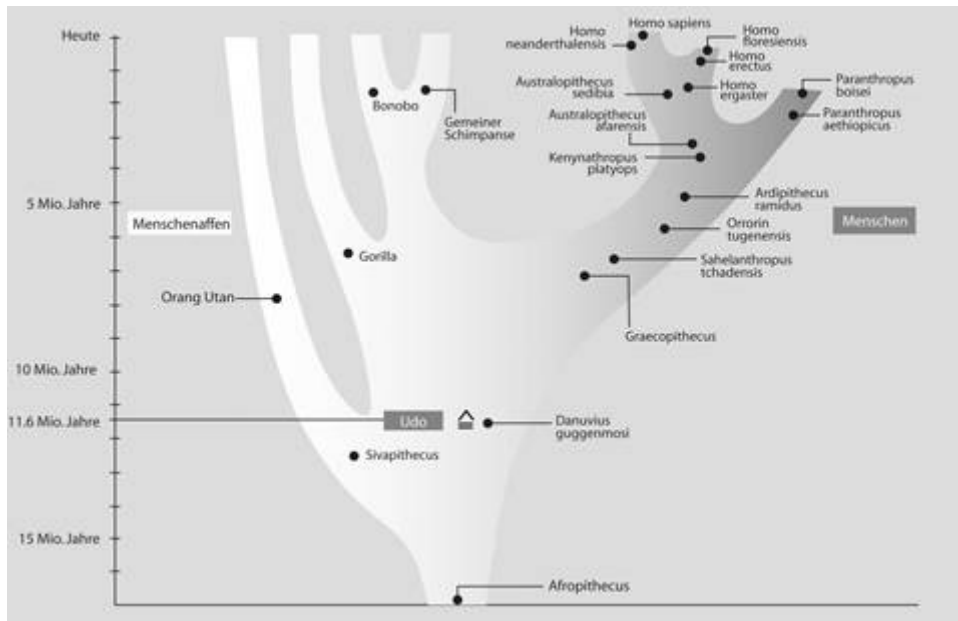


Fig. D.5.6. *Becoming human ?*

Urs Willmann, DIE ZEIT No. 46/19 of 11/7/2019.

The «large occipital hole» reminds us that physically, too, we have not matured fully yet. The same as most terrestrial vertebrates we still need to lift the head with muscular force into a sensible posture. Would the uppermost cervical vertebra, suitably called Atlas, carry the skull in the middle, this would be an evolutionary advantage because muscle force would be saved. - By no means was man the only one to acquire upright walking, nor the only one to learn how to shape tools, nor the only one to undertake migrations of thousands of years to and from *Atlantis*, nor the only one to migrate directly to Europe and eastern Asia or via east Africa such as «Lucy», see the end of subsection «Neogene». What is more, man and other kinds of primates did not undertake these steps just once. Most likely it was an evolutionary wafting of progress and setbacks the way they can be recognized just in our days.

Embryos and babies of apes have the large occipital hole situated significantly more to the front than adult apes. It is situated as much to the front as human embryos' and babies'. Some biologists conclude, as does Steiner in a *spiritual* context as we authors see it, that man had existed earlier than apes, and by this example their adult anatomy proved an evolutionary setback (*A. Kipp : «Die Evolution des Menschen im Hinblick auf seine lange Jugendzeit» {Man's Evolution in View of Long Youth}, 1991 {!}, quoted according to Delor 5a:12 f*). Some anthroposophists demonstrate with this finding that physical evolution did not occur in Darwin's sense, i.e. from apes to man (*e.g. Delor 5a:6-19*). In the meantime however paleobiology considers the evolutionary separation of apes and man as wafting to and fro depending on life circumstances.

Still there remains an unsolved question in paleobiology : Whether a skeleton shows itself to be a pre-man's or an early man's because upright walking is evidenced, or whether other criteria ought to be considered too. Supposing upright walking is sufficient, man evolving began according to contemporary biology 11.6 million years ago with *Danuvius guggenmosi* {see Fig. D.5.9.}, or perhaps in east Africa with «Lucy's» foot prints 3.2 million years ago, or in Bolivia 15 - 7 million years ago (*Delor 3:332 f and 5a:7-11*). Otherwise the arbitrarily defined line between emerging apes and emerging man in Fig. D.5.9. would shift to the above right correspondingly. - Another functional-anatomic difference to other primates consists in man putting the tip of the thumb on the 5<sup>th</sup> finger's tip. This enables him to use tools more

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easily than other primates.

Are there other than anatomic criteria ? Some people claim not any animal could imagine things they had not seen, heard, smelled, tasted, or felt before. - Chimpanzees poke at termite dens with little sticks to lure out the prey, and are able to observe that a stick will enter less deeply when leaves or transverse branches are hindering it. They can imagine the stick would do better without, and act accordingly : They pluck leaves and side branches from the sticks, evolving as early toolmakers . - Furthermore at least apes and dogs can dream : another example of forming imagination.

Is it true that only man can create inner images he had not seen before ? Is it true he would resemble gods if only in some degree when creating something ? Does just man yearn for the hereafter ? - Has anybody asked the animals ?

We mentioned in vol. I , part 1 already, earlier than the very first chapter, in subsection «Terms and Their Meanings» : Whether we are likely to call ancient shapes similar to today's jellyfish a human because they are to develop an 'I' and 'I'-consciousness, is rather a question of perspective than of world views. Of course scientific and *spiritual-scientific* views differ here. Scientific findings limit themselves to sensorially perceptible findings. *Spiritual-scientific* views presume we could understand the ways of the *spiritual worlds* deciding on fate without being subjected to time. The majority of contemporaries, including us authors erstwhile, will not be able to follow this view, depreciating it as pure belief. But we need not claim a question of truth. We just have not yet arrived at leaving seemingly contrary world views as they are. When envisaging perspectives we can do better.

The manifold development topics in the present chapter may be set into a chronological sequence : in vol. I , part 4 , chapter I.5 «Spreadsheet Supplements» followed by chapter I.6 «Ages by Cues». To avoid confusions both chapters will use the same color differentiations.

After having regarded anthroposophic and scientific views side by side, we are ready to compare : time lines.

## D.6. Time Lines

In Tab. D.2.1. and the more detailed Tab. D.5.2. time was skewed in that the more recent past was granted more lines than corresponded the time spans. Time lines make good for this distortion. As the time lines show linear scales, not logarithmic ones, earlier and later time spans can be compared horizontally at first sight. Vertical cursor lines in the Tab. D.6.2.V. and D.6.3.V. help comparing whether different issues correspond in time. So we can compare paleogeologic Earth ages, anthroposophic *ages*, and biblical creation days as all the three time lines extend vertically from the left end of the page, meaning the Earth being born ?4.57? billion years ago, up to the right, meaning present days.

The paleogeologic time line refers to popular-scientific en.wikipedia.org and Wikipedia.de , both from September 2024 on. In the earlier versions of this book object ages were given that were 5 - 10 years old. In part they were outdated. That is what happens to anybody concerned with sciences, and this book as well. Unless it is updated regularly.

So we authors had to update the paleogeologic time line :

- Earth rock had been dated to ?4.57? billion years ago in the meantime, whereas it had been defined to exist as late as the Archaic [?4.0 - 2.5? Ga] : a discrepancy of more than half a billion years.
- Rock inclusions, aged ?4.35? billion years and so originating in the Hadean, have been understood to be fossils of earliest life. Life had not begun with hard shelled outer skeletons, beginning with the Phanerozoic [from 538.8 million years ago on], a difference of > ?3.8? billion years.
- Life cannot exist without water and was figured to exist since ?4.4? Ga. Regarding red-hot-liquid rock of the *Hyperborean* this can only mean steam in the Earth's atmosphere - a thought non-anthroposophic paleogeography might still get accustomed to.

Next the second time line, the «anthroposophic *ages*». It refers to all eight of Delor's Atlantis books which again refer, among others, to contemporary *clairvoyant* research. The indications are dealt with in this book in the preceding chapter D.5 «During *EARTH* : Details». A. Delor refers to R. Steiner und D. Bosse, too. Bosse and Delor continue work on R. Steiner's books and lectures in paleogeologic, paleogeographic, and paleobiologic respect.

In the third time line the days of creation, too, refer to all eight of Delor's Atlantis books.



## D.6. Time Lines

**borean age**, e.g., correctly set up ? And correctly figured out ?

$\frac{720 \text{ million years since the end of Hyperboreis compare to}}{4.57 \text{ billion years of the Earth's age}}$

AS

$\frac{X = \text{proportional page width}}{\text{to 17 cm page width}}$

X = the time, in cm, since the end of *Hyperboreis* :  
*Lemuris, Atlantis and Post-Atlantis.*

just the 7th Hyperborean epoch

X = 2,66 cm

The three time lines are based on differing world views.. With them time has different meanings. The first time line, the paleogeologic one, Tab. D.6.1. , is shown logarithmically in vol. I , part 4 Fig. I.1.1. «Diagram Excerpt : Comparative Chronological Table by D. Bosse». Tab. D.6.1. is based on the heliocentric world view and shows paleogeologic and paleobiologic findings underneath. We authors cannot emphasize enough that we are not concerned so much with absolute ages of the Earth's history, but rather with the sequence, see chapter D.4 «Dating References». We are using the absolute figures of ages just to be understood.

Both the other timelines are based on the geocentric world view showing Steiner's *clairvoyant* cognitions as they were refined, among others, by D. Bosse as well as by contemporary *clairvoyant* visualizations which were published by A. Delor. Steiner prefers showing sun years in linear representation, see in vol. I , part 4 Fig. I.1.1. once more.

Since the heliocentric, paleogeologic time line has been continually corrected and refined by sciences we might arrive at an approach only when the indications of anthroposophic *ages* and creation days were drastically earlier than shown in both geocentric time lines. The Sun (including Venus and Mercury) should have "left" the rest of the world body consisting of the Earth and the Moon, at the Earth's paleogeologic birth at the latest, and the Moon should have left the Earth shortly after the beginning of the Hadean.

What is more, according to Steiner the Sun became visible together with the Moon and the stars on the 4<sup>th</sup> creation day only because the Sun began shining on the Earth's atmosphere from the outside. [Light was created on the first creation day already. We do not know however the rhythm nor the sense.] The 4<sup>th</sup> creation day must have ended at the end of the Archean at the latest so that plants could build up oxygen helped by Sun radiation coming from the outside. In the time line Tab. D.6.3, however, the 4<sup>th</sup> creation day ends shortly before the end of the Paleozoic.

First we authors tried to match the table of the anthroposophic ages, Tab. D.6.2., as well as the table of creation days, Tab. D.6.3., with the paleogeologic table, Tab. D.6.1. The Steiner quotations are quote iterations from this book all over.

By what criteria can we approach **anthroposophic ages** and the **creation days** to paleogeologic or paleobiologic findings ? - We are looking for characteristics corresponding to the *ages* and later to the creation days, too, in the paleogeologic table, Tab. D.6.1.

For warming up : There will plausible evidence be found that the 1<sup>st</sup> creation day as well as the earliest *age* took place earlier than the Earth's history, and the 2<sup>nd</sup> *age* in part.

### The anthroposophic ages.

First we have Steiner comparing *ages* to paleogeologic times :

„Die Tertiärzeit können Sie gut mit der Atlantis parallelisieren, und die Sekundärzeit können Sie parallelisieren im Wesentlichen, nicht pedantisch, mit dem, was ich schilderte als die lemurische Zeit. Da würde also die Sekundärzeit hineinkommen. (...) -

You may well parallelize the Tertiary time [period] with Atlantis (Atlantic age), and the Secondary time [era] in general - not pedantically - with what I outlined as the Lemurian time (age). That is where the Secondary time [era] would come in. (...)

*Die paläozoische entspricht der Hyperboräischen Epoche, auch da dürfen sie nicht pedantisch die einzelnen Tierformen nehmen. Dann haben Sie das mesozoische dem lemurischen im Wesentlichen entsprechend.“ (R.-Steiner 300 a: 96).*

*The Paleozoic [era] corresponds to the Hyperborean Epoch (age), you must not take the different animal forms pedantically either. Then you have the Mesozoic [era] corresponding in general to Lemuris (the Lemurian age).*

This baseline of anthroposophic *ages* led in Tab. D.6.2.V. to the uppermost line : «1.) initial situation : R. Steiner ~ 1920 :» which is adapted to the development times accepted nowadays and listed on the same page underneath the paleogeologic time line Tab. D.6.1. The Tertiary, the «[Earth's] 3rd age» [66 – 2.588 million years ago], comprises most of the Cenozoic [66 million years ago up to today]. What follows would just be the Quaternary [from 2.588 million years ago up to today]. The "Secondary time" occupies all the Mesozoic [251.9 – 66 million years ago], and the "Paleozoic" [era] - Steiner might as well have called it «primary time» - is at the place of the Paleozoic [538.8 – 251.9 million years ago]. - We shall use the colors corresponding to the Tab. D.6.1. above.

Then according to the *Sun and Moon separations*. Whenever "time" is mentioned in the two following quotations Steiner means the corresponding *age*.

*„Wir stellen uns noch einmal vor, dass im Beginne unserer Erdentwicklung die Erde vereint war mit der Sonne und dem Monde. (...) Diese Zeit der Erdentwicklung (...) nennt man gewöhnlich in der geisteswissenschaftlichen Literatur die «polarische Zeit» der Erdentwicklung. (...) Dann kommt die Zeit, in der die Sonne sich anschickt, aus der Erde herauszugehen (...). Diese Zeit nennen wir die Hyperboräische Zeit. (...) Dann kommt ein Zeitalter, in dem die Erde nur noch mit dem Mond vereint ist (...). (...) Es ist die Zeit, die man in der geisteswissenschaftlichen Literatur die lemurische Zeit nennt (...).“ (R.Steiner 112:87 f, V : 6/28/1909).*

*Once again we shall envisage the Earth in the beginning of her development when she was all in one with the Sun and the Moon. (...) This time of the Earth's development (...) is usually called the «Polaric time» in spiritual-scientific literature. (...) Then the time comes when the Sun prepares to leave the Earth {including the Moon} (...). This is the time we are calling the Hyperborean time. (...) Then comes an age {!} when the Earth is in one with just the Moon (...). (...) It is the time called the Lemurian time (age) in spiritual-scientific literature (...).*

Steiner's evaluation does not claim the *Sun separation* was completed at the end of *Hyperboreis*, nor the *Lemurian age* having terminated when the *Moon* had finished *separating*.

*„Aus diesem dritten Zeitalter lebten die Menschen allmählich hinüber in eine Zeit der Erdentwicklung, die wir die atlantische nennen, weil während dieser Zeit der Hauptteil des Menschengeschlechtes auf einem heute untergegangenen Weltteil lebte, der zwischen dem heutigen Amerika und Afrika und Europa gelegen war, da, wo jetzt der Atlantische Ozean ist.“ (R.Steiner 112:89, V : 6/28/1909).*

*From this third age {!, here : Lemurian age !} man lived by and by into a time of the Earth's development we are calling the Atlantic one because at this time the main part of humanity lived on a part of the world inundated today between today's America and Africa and Europe, where there is the Atlantic Ocean today.*

Now let us continue to the *elements* during the *ages*, according to Delor :

We remember that the *ages* iterated the *OLD planetary development states* (e. g. R.Steiner 13:145 f, IV, and 112:59, III : 26.6.1909). During *OLD SATURN* and *Polaris* the *element warmth* had originated ; during *OLD SUN* and *Hyperboreis* the *element air-like - gas-like* was added, and so was finally the *element watery / liquid* during *OLD MOON* and *Lemuris*. - During *Atlantis* only did stable ground evolve from bog and add itself up. This occurred as a new creation during the *planetary development state* of *EARTH*, which is our topic with its *ages*.

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Corresponding to the *ages' elements* contemporary *clairvoyant* visualizations (Delor 7:176) extend Steiner's *ages* more to the past : Namely *Lemuris*, when the *element watery / liquid* iterated *OLD MOON*, was extended from the Mesozoic [251.9 – 66 million years ago] - and now differently from R. Steiner - to the Paleozoic [538.8 - 251.9 million years ago] as well as the last two [of three] subsections [?720? - 538.8 million years ago] of the Neo-Proterozoic [?1,000? - 538.8 million years ago]. This seems justified by earlier forms of life having been discovered since Steiner's life time, and where there was life around, there must needs have been water, no matter how much polluted. For similar reasons the beginning of *Hyperboreis* had to be advanced further into the past because photosynthesis proved that there was light, the *ether* of *Hyperboreis*, much earlier than it was thought before. The times of the *Sun* and *Moon separations* however were maintained : The Sun was still to have separated near the end of the *Hyperborean age*, and the Moon in a middle part of the *Lemurian age*. - All of this is shown in Tab. D.6.2.V. in the middle line : «2.) Delor 2015». The colors correspond to the line above.

Following D. Bosse (2012, pg 99 ff) the third line of Tab. D.6.2.V. respects that mixture states prevail in *life sphere* of the *Lemurian age*. The same as in the second line of Tab. D.6.2.V. the *ages* relate to the esoteric *elements* according to the above paleogeologic findings as they are listed in Tab. D.6.1. on the same page. The following passages are to explain :

### **The *Polaric Age***

*Polaris* contained just *warmth* as its only *element*. It is true for Steiner *warmth* is a *finely substantial element* ; in physics, however, it is purely radiation. Was there any time of pure radiation in paleogeography ? - No. The Earth originated ?4.57? billion years ago as Earth rock which must still have been blazing hot and in a liquid - not watery - state.

Time originated only during the *Polaric age*. According to physics time stops dead only with something that could barrel along at light speed, which is possible just for light. Newer concepts in theoretical physics (C. Rovelli from pg 85 on) describe a black hole evolving via a new singularity to a fully new universe with a course of time fully of its own. Then we might call our universe a multiverse of universes. We may feel tickled to learn about *Polaris* fitting to some physical concept or other in the future. - *Polaris* inevitably extends the esoteric *ages* over more than the Earth's paleogeologic origin - and even earlier than the singularity because the singularity merged into the big bang which contained physical elementary particles, i.e. matter, right from the start.

Delor (7:417 and 8:166) suggests paleobiologic assessments during *Polaris* communicated by contemporary *clairvoyants*. During *Polaris* already there were to have originated : precursors of viruses, of archaeobacteria, eubacteria, and higher monocellular life, of sponges / slime molds and root elements of later plants, and finally of cyanobacteria. Delor does not author that such precursors had existed purely spiritually during *Polaris*. Even when being unable, as we authors are, to imagine precursors consisting of *warmth* only, they will still have occupied something like space, and so belong into the next *age*.

### **The *Hyperborean Age***

Space originated during the *Hyperborean age*. Shortly after the singularity, during the inflation phase, i.e. the extension phase at more than light velocity, as well as the plasma stage, up to ~ ?380? Ga after the big bang, there was the utmost chaos and darkness imaginable to us, although there were already photons and elementary particles, see in vol. I, part 1 the beginning of chapter C.1 «Singularity, Big Bang, Plasma, and Radiation Energy». Even elementary particles occupy space, and so belong to *Hyperboreis*. So *Hyperboreis* originated with the singularity at the latest. - Delor (8:74) sees the Earth's history beginning with the 7<sup>th</sup>, the last epoch of *Hyperboreis*.

Taken on their own photons are not a criterion of the Earth's history because the Earth contained matter from the very beginning. That is how even the *Hyperborean age* enlarges the outlook at least to the universe, a long time earlier than the Earth's paleogeologic origin [just ~ ?4.57? billion years ago] as well as to the singularity, the origin of the universe [~ ?9.23? billion years before the Earth was born]. With Delor the unmeasurable time earlier than the Earth's paleogeologic origin comprises the first 6 *Hyperborean epochs*.

Light, the *ether* form of the *Hyperborean age*, became visible during the re-combination phase ~ ?400 - 500? million years after the singularity. This as well is a criterion according to physics a long time before the Earth originated.

So indeed the *Hyperborean age* originated earlier than the Earth's history. But when did it end ? Bosse (2012, S. 99 f, see below) concluded that there must have been extensive mixture states in the *life sphere* : The upper part of the

*life sphere* was warmed up by the Sun from the exterior, furthering the evolution of living beings in there. Its watery phase, polluted as it surely was with other substances, began condensing as dusk in the lower parts of the *life sphere*, which were less warmed by the Sun. Gradually the lower parts of the *life sphere* extended from down to above in the course of *Lemuris*. Mixture states came up resembling life conditions during the *Hyperborean age* and the *Lemurian age* : water-saturated gases, gas-saturated liquids, see in Tab. D.6.2.V. the lowest line : «(3) Adapted to ...». The mixture states diminished until *Lemuris* had overcome the excessive power of the gas-like states at the end of the Tonian [?1,000 - 720? Ga] and the beginning of the Cryogenian [?720 - 635? Ga]. This estimation bases purely on the earlier assessment of *Lemuris* beginning, see the line «(2) Delor 2015». As the mixtures cannot be defined either by their contents or their duration, there are no boundary lines drawn between the mixture states in the lowest line of Tab. D.6.2.V. : «(3) Adapted to ...». Just color nuances are to show that everything mixed to varying extents.

### **The Lemurian Age**

The *Lemurian age* began at the time when watery liquids were deemed necessary for life ensuing, and lasted until the ground was concrete enough so that animals could walk.

*"During the Lemurian age already the life sphere was not homogeneous any more. In the upper areas it was still hot and airy, full of life, while in the lower parts it was already dying, cool, watery." (Bosse 2012, S. 99).*

When *Lemuris* ended there were transition times, too. Following Bosse (2012, S. 101 ff) they are thought to last the time of the Paleozoic in the lowest line of Tab. D.6.2.V. : «(3) Adapted to ...» .

### **The Atlantean Age**

*Atlantis* began when the ground was concrete enough to bear land-bound animals. It lasted until the end of the Ice Age, 11.7 thousand years ago.

*„Wir könnten also den Hergang von der lemurischen in die atlantische Zeit so charakterisieren : Da war die Erde ringsum bedeckt von dichten Nebelmassen (...).“ (R.-Steiner 122:181 , X : 8/25/1910).*

*We might characterize the transition from the Lemurian into the Atlantic times {ages} like this : The Earth was covered with dense masses of haze all around (...).*

In German "*Earth*" may as well mean «ground», "earth" in English. So "*Earth*" maybe indicates the ground, showing according to Bosse (2012, pg 99 f) that the upper life sphere began lighting up during the Cambrian / Paleozoic already because trilobites had visual cells during the Cambrian [538.8 - 485.4 million years ago], the earliest part of the Paleozoic [538.8 - 251.9 million years ago], see below.

When was the ground firm enough ? - There is a differentiating answer.

*„Auf dem größten Teil der Erdoberfläche, also über der Seite der heißflüssigen basaltischen Massen, blieb der mittellemurische Zustand noch bis zum Ende des Erdalters bestehen. (...) Im Gegensatz dazu entwickelten sich die Lebensprozesse über den Kontinentalgebieten und sonderten die Substanzmassen ab. Dort bestand viel früher, etwa seit dem Ende des Proterozoikums zunehmend ein atlantischer Zustand - wenn man so sagen darf. Es gab also bereits eine fest Erdkruste mit kleinen Gebieten, über denen eine Trennung von Luft und Wasser begonnen haben muss, wo es bereits eine wohl nebelige,*

*The largest part of the Earth's surface, i.e. on the side above the hot-liquid basaltic masses, there still remained conditions alike to middle Lemuris up to the end of the Paleozoic [up to 251.9 million years ago]. (...) Contrariwise the life processes developed above the continental areas, secreting masses of substances. It was there that much earlier, somewhat since the end of the Proterozoic [from 538.8 million years ago on], Atlantic conditions prevailed - if we may say so. There was indeed {above the continental areas} a firm crust of the Earth in small areas where air and water must already have begun separating, {and} where there was a {somewhat} translucent atmosphere already - although it was still foggy - , because the Trilobites [three*

## D.6. Time Lines

*aber durchlichtete Atmosphäre gab, denn die Trilobiten und Plattenfische des frühen Erdalters hatten bereits Augen. Über dem größten Teil der Erde blieb die Wasser-Luft-Sphäre jedoch noch bis ins ausgehende Erdmittelalter ungetrennt.*“ (Bosse 2012, S. 99 f).

lobes', extinct marine arthropods] *and the Placoderms* ['plate skins', an extinct group of prehistoric fish] *already had eyes* [visual cells] *during the early* [ $< 538.8$  million years ago] *Paleozoic* [538.8 - 251.9 million years ago]. *Above the largest part of the Earth* {above the hot-liquid basaltic masses}, *however; the water-air-sphere (life sphere) remained undivided up to the end* [ $> 251.9$  million years ago] *of the Mesozoic* [298.9 - 251.9 million years ago].

We authors understand by "*conditions alike to middle Lemuris*" the time before the ground densified by and by at the end of *Lemuris* in the middle line of Tab. D.6.2.V. : «2) Delor 2015». Then "*Atlantic conditions*" as much as inherited such ground from *Lemuris*. - The lowest line of Tab. D.6.2.V. : «3) Adapted to ...» is adapted accordingly.

What about the Atlanteans ?

*„Im letzten Drittel der atlantischen Zeit wird dann die Menschengestalt immer ähnlicher der heutigen.“* (R.Steiner 103:113 , V : 10/23/1908).

{As late as} *the last third* {from ~ 22 million years ago on} *of the Atlantic time* {age} (66 million years ago - 11.7 thousand years ago) *the human gestalt resembles today's more and more.*

### **The Post-Atlantean Age**

The *Post-Atlantean age* began when today's warm period initiated from 11.7 thousand years ago on. It began too short a time ago to be seen in Tab. D.6.2. or Tab. D.6.2.V.

What cannot be seen in Tab. D.6.2. either ? - The ages merging into each other.

*„Sie werden schon sehen, wie die Wiederholungen nicht in ganz eindeutiger Weise geschehen können, sondern wie sie gleichsam übereinander greifen.“* (R.Steiner 122:92 , V : 8/20/1910).

*You will be sure to see that iterations cannot occur in quite unequivocal ways. They merge into each other.*

"Iterations" of the *ages* repeat the *planetary development states*, but without *pralayas* between them, so that transitions are possible the way they are described above.

## **The Days of Creation.**

### **The 1<sup>st</sup> Creation Day**

«In the beginning God created the heaven and the earth. / And the earth was without form and void ; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters. / And God said, Let there be light : and there was light. / And God saw the light, that it was good : and God divided the light from the darkness. / And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day.» [KJV I:1-5]. /

«Im Anfang schuf Gott den Himmel und die Erde. / Die Erde aber war Irrsal und Wirrsal. Finsternis über Urwirbels Antlitz. Braus Gottes schwingend über dem Antlitz des Wassers. / Gott sprach : Licht werde ! Licht ward. / Gott sah das Licht : dass es gut ist. Gott schied zwischen dem Licht und der Finsternis. / Gott rief dem Licht : Tag ! und der Finsternis rief er : Nacht ! Abend ward und Morgen ward : ein Tag.» [Buber & Rosenzweig I:9].

The 1<sup>st</sup> verse of the genesis might be taken for a headline for all the entire creation. The second one fits to the Hadean : «... form and void ; and darkness ...». At the end of the 2<sup>nd</sup> verse «waters» are mentioned, and we authors understood the expression to mean 'any non-concrete matter'. In the 3<sup>rd</sup> verse «light» was created and in the

4<sup>th</sup> verse «divided» from «the darkness». Only in the 5<sup>th</sup> verse are «Day» and «Night» named. Their rhythm and sense, however, come as late as the 4<sup>th</sup> creation day.

«Light» and «darkness» without a rhythm may mean physical states such as they were described above in connection to early *Hyperboreis*. This cannot have concerned the Earth's history because from its very beginning the globe must have spun round and round, see in vol. I, part 1 chapter C.2 «Earth Rotation from the Torque of Colliding Particles». So we authors consider «Day» and «Night» on the 1<sup>st</sup> creation day tentatively as the creation of variations in brightness during the very first stages after the singularity - without wishing to claim in the least, or even to hope, that differences in brightness were more than a snippet compared to the creation of all the universe including the *spiritual* truth.

In vol. I, part 1 chapter B.5 „The Secrets of the Biblical Genesis“ we authors had been convinced of Delor understanding the 1<sup>st</sup> creation day to begin with the 7<sup>th</sup> *Hyperborean epoch*. Which meant the Sun was just going to separate from the Earth plus Moon. For Delor, too, the previous six *Hyperborean epochs* must have existed before the Earth's birth in the paleogeologic meaning.

*"According to Rudolf Steiner the separation of the Sun and the Earth took place on the 1<sup>st</sup> creation day ; I guess by this he meant 'the Earth's beginning 4.6 billion years ago', when the Earth began {} separating inside the Sun as an independent unit. It did not mean the final separation from the Sun, which occurred at the time of the 'snowball-Earth' ?*

*You are right, the Genesis starts at the point when the Earth begins building up inside the Sun as an individual body like an embryo - at the beginning <sup>1</sup> of the Precambrian <sup>2</sup> or the Earth's primordial time or the 7<sup>th</sup> Hyperborean sub-epoch respectively." (Delor 8:12).*

<sup>1</sup> [from 24.57? billion years on] , <sup>2</sup> [Hadean, 24.57 - 4.0? billion years ago]

So did the 2<sup>nd</sup> creation day begin after the Sun had finished separating : later than the time of snowball-Earth [2750 - 580? million years ago] ? We authors do not succeed in agreeing any more. The seismic and climatic upheavals would have extinguished all existing life and should show with graphitic lenses, taken as accepted clues of residuals of monocellular life in crystalline shales (*Bosse 2015, pg 101*), missing after snowball-Earth.

We authors think it more probable that the creation began earlier than the Earth's birth - which must have been unimaginable for the ancient Hebrew *clairvoyants*. We think the 1<sup>st</sup> creation day began with the singularity and reached into the time after. We may take as an indication the chaos and «darkness» which we know of from the super-explosion-like inflation phase and the plasma stage up to ~ 2380? million years ago after the singularity. The 1<sup>st</sup> creation day may have lasted until light came up apart from protons, neutrons, various elementary particles and unbound photons : light in the afore mentioned re-combination phase up to ~ 2400? million years ago after the singularity. The Earth originating was out of question then because she originated with rock material.

## The 2<sup>nd</sup> Creation Day

«And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. / And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament : and it was so. / And God called the firmament Heaven. And the evening and the morning were the second day.» [KJV I:6-8]. /

«Gott sprach : Gewölb werde inmitten der Wasser und sei Scheide von Wasser zu Wasser ! / Gott machte das Gewölb und schied zwischen dem Wasser, das unterhalb des Gewölbs war, und dem Wasser, das oberhalb des Gewölbs war. Es war so. / Dem Gewölb rief Gott : Himmel ! Abend ward und Morgen ward : der zweite Tag.» [Buber & Rosenzweig I:9 , too].

The 2<sup>nd</sup> creation day began with the heaven and the Earth separating. The Earth was still red-hot with liquid rock then. So from now on «Earth» must mean something different from the 1<sup>st</sup> creation day. We can imagine the 2<sup>nd</sup> creation day to begin with the Earth's birth, 24.57? billion years ago. God created the heaven as «firmament» which «divided the waters which were under the firmament from the waters which were above the firmament». If «waters which were under the firmament» were the still liquid-hot Earth, then «the waters which were above the firmament» could only mean the creation of the supersensible world because we humans imagine the gods 'above', and Steiner *clairvoyantly* sees them still 'behind' the fixed stars, i.e. 'behind' the heaven.

(...) weil wir hinter dieser Sternwelt große, uns lenkende Geistwesen erahnen, die auf unsere Gefühlswelt wirken. “ {Sorry, I did not find again where I took this quotation from}.

(...) because we sense spiritual beings leading us, behind this world of stars. They work on our world of feelings.

On the 2<sup>nd</sup> creation day God named the heaven but not the Earth. - It ended shortly before the ground appeared, although it may have been all jelly-like as yet.

### The 3<sup>rd</sup> Creation Day

«And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear : and it was so. / And God called the dry land Earth ; and the gathering together of the waters called he seas : and God saw that it was good. / And God said, Let the Earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind, whose seed is in itself, upon the earth : and it was so. / And the earth brought forth grass, and herb yielding seed after his kind, and the tree yielding fruit, whose seed was in itself, after his kind ; and God saw it was good. / And the evening and the morning were the third day.» [KJV I:9-13]. /

«Gott sprach : Das Wasser unterm Himmel stauet sich an einen Ort, und das Trockne lasse sich sehn ! Es war so. / Dem Trocknen rief Gott : Erde ! und der Stauung der Wasser rief er : Meere ! Gott sah, dass es gut ist. / Gott sprach : Sprießen lasse die Erde Gespross, Kraut, das Samen samt, Fruchtbaum, der nach seiner Art Frucht macht, darin sein Same ist, auf der Erde ! Es war so. / Die Erde trieb Gespross, Kraut, das nach seiner Art Samen samt, Baum, der nach seiner Art Frucht macht, darin sein Same ist. Gott sah, dass es gut ist. / Abend ward und Morgen ward : dritter Tag.» [Buber & Rosenzweig I:9 ff].

From the beginning of the 3<sup>rd</sup> creation day on the ground could be seen, although it may still have been gel-like : ~ the middle of the Silurian [443.4 – 419.2 million years ago] : ~ 430 million years ago. - From its end on plants seeded up : around the end of the Devonian [419.2 – 358.9 million years ago] : ~ 360 million years ago. According to the bible there were not any animals yet.

### 4<sup>th</sup> Creation Day

«And God said, Let there be lights in the firmament of the heaven to divide the day and the night ; and let them be for signs, and for seasons, and for days, and years : / and let them be for lights in the firmament of the heaven to give light upon the earth : and it was so. / And God made two great lights ; the greater light to rule the day, and the lesser light to rule the night : he made the stars also. / And God set them in the firmament of the heaven to give light upon the earth, and to rule over the day and over the night, and to divide the light from the darkness : and God saw that it was good. / And the evening and the morning were the fourth day.» [KJV I:14-19]. /

«Gott sprach : Leuchten seien am Gewölb des Himmels, zwischen dem Tag und der Nacht zu scheiden, dass sie werden zu Zeichen, so für Gezeiten, so für Tage und Jahre, / und seien Leuchten am Gewölb des Himmels, über die Erde zu leuchten ! Es war so. / Gott machte die zwei großen Leuchten, die größte Leuchte zur Wahrung des Tags und die kleinere Leuchte zur Wahrung der Nacht, und die Sterne. / Gott gab sie ans Gewölb des Himmels, über die Erde zu leuchten, / des Tags und der Nacht zu walten, zu scheiden zwischen dem Licht und der Finsternis. Gott sah, dass es gut ist. / Abend ward und Morgen ward : der vierte Tag.» [Buber & Rosenzweig I:10].

From the 4<sup>th</sup> creation day on the world bodies in the heaven came to be visible, i.e. the *life sphere* began clearing. We should realize that visible ground and a clearing *life sphere* occurred as much as at the same time : As excrements and living beings sank down they enhanced ground building up - especially so in flat and sunny plains of the Earth. See the above quotation from Bosse 2012, pg 99 ff.

### The 5<sup>th</sup> Creation Day

«And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. / And God created great whales, and every living crea-

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ture that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind : and God saw that it was good. / And God blessed them, saying, Be fruitful, and multiply, and fill he waters in the seas, and let the fowl multiply in the earth. / and the evening and the morning were the fifth day.» [KJV I:20-23]. /

«Gott sprach : Das Wasser wimmle, ein Wimmeln lebenden Wesens, und Vogelflug fliege über der Erde vorüber dem Antlitz des Himmelsgewölbs ! / Gott schuf die großen Ungetüme und alle lebenden regen Wesen, von denen das Wasser wimmelte, nach ihren Arten, und allen befittichten Vogel nach seiner Art. Gott sah, dass es gut ist. / Gott segnete sie, sprechend : Fruchtet und mehret euch und füllt das Wasser in den Meeren, und der Vogel mehre sich auf Erden ! / Abend ward und Morgen ward : fünfter Tag.» [Buber & Rosenzweig I:10, too].

On the 5<sup>th</sup> creation day there originated aquatic animals and birds. According to paleobiology birds originated around the same time as flowering plants, only ~ 150 million years ago, at the transition from the Jurassic to the Cretaceous [201.3 - 145 - 66 million years ago]. - Aquatic animals may mean the earliest ones ~ 750 million years ago during the Neo-Proterozoic [?1,000? - 538,8 million years ago]. Maybe, however, the ancient Hebrew *clairvoyants* were thinking of creatures closer to what they had experience with, earliest bone fish ~ 410 million years ago, during the Devonian [419.2 - 358.9 million years ago]. It really is rather a wide time span of ~ 340 million years ago or even ~ 600 million years ago when the 3<sup>rd</sup> creation day may have begun.

### On the 6<sup>th</sup> Creation Day

«And God said, Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth after his kind : and it was so. / And God made the beast of the earth after his kind, and cattle after their kind, and everything that creepeth upon the earth after his kind : and God saw that it was good. // And God said, Let us make man in our image, after our likeness, ...» [KJV I:24-26]. /

«Gott sprach : Die Erde treibe lebendes Wesen nach seiner Art, Herdentier, Kriechgerege und das Wildlebende des Erdlands nach seiner Art ! Es war so. / Gott machte das Wildlebende des Erdlands nach seiner Art und das Herdentier nach seiner Art und alles Gerege des Ackers nach seiner Art. Gott sah, dass es gut ist. / Gott sprach : Machen wir den Menschen in unserem Bild nach unserem Gleichnis ...» [Buber & Rosenzweig I:10 f].

Man in the making offered too many evolutionary steps seen in paleobiology to find an unequivocal stage, see in the previous chapter D.5 the last subsection «What Does Define Man of Today ?». The time is too short to show on the time lines here. - For the rest all terrestrial animals originated on the 6<sup>th</sup> creation day : beginning with earliest tetrapods ~ 375 million years ago during the Devonian, up to Primates beginning to differentiate ~ 66 million years ago at the beginning of the Cenozoic [66 million years ago up to today] / Tertiary [66 - 2.588 million years ago] / Paleogene [66 - 23.03 million years ago]. The evolution does not please us with developing in categories as does the Genesis.

After the creation days there is the phase, important to man, of having «breathed into his nostrils the breath of life ; and man became a living soul» [KJV II:7], of paradise [KJV II:8 f], of man's fall from grace [KJV II:15 - III:19], and of man's expulsion from paradise [KJV III:20 - 24]. Apart from the fact that this is most probably meant *spiritually*, and cannot be compared to paleogeologic findings, the time lines we are using here are too short, too coarse to show time spans as recent as human history.

### Tab. D.6.2. and .3. with Variants

Next the above interpretations are introduced into the anthroposophic time line, Tab. D.6.2., as well as into the time line of the creation days, Tab. D.6.3. The tables have their names changed into «Tab. D.6.2.V.» and «Tab. D.6.3.V.» «V» is to mean «a possible variant».

An indication how the creation days are shown in Tab. D.6.3.V. :

The genesis categorizes the creation days according to topics, but unfortunately life's evolution does not go conform with the Genesis' categorizing. For instance earliest marine animals show on the 5<sup>th</sup> creation day, but according to paleobiology as early as ~ 750 million years ago, the time of the Neo-Proterozoic [?1,000? - 538.8 million years ago], even at its early period, the Tonian [?1,000 - 720? million years ago], earlier still than in Tab. D.6.2.V. the beginning [?720? million years ago] of *Lemuris* [?720? - 66 million years ago]. Our comprehension of originating life and its devel-

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opmental stages has been shifting once more to the past : to marine animals. Earliest ground, on the other hand, was created according to the genesis on the 2nd creation day, but came up later if only gel like : around the middle, ~ 390 million years ago, of the Devonian [419.2 - 358.9 million years ago] : a time span of ~ 330 million years in reverse order. - Or take another example : Earliest terrestrial animals, e.g. amphibians, were created on the 6th creation day according to the genesis, and findings directed to the Devonian ; while birds, created on the 5th creation day, were found to have existed just since ~ 150 million years ago, since the Jurassic [201.3 - 145 million years ago] : this time a time span of ~ 240 million years in reverse order. So how could we represent the creation days in Tab. D.6.3.V. ?

The genesis ranges every development step in the creation day when the corresponding developments just began. In fact, however, these steps are continuing up to our days. In Tab. D.6.1. we had used arrows to show the times of origin. With the creation days we should like to take a different road. Each line is to show a development step coming up to present times : They are creation steps the Genesis relates. Extinct species however are not mentioned ; the table would go over pages.

First the paleogeologic time line, Tab. D.6.1., is repeated to simplify comparisons. Once again the three **timelines** mirror the Earth's age. Once again the colors used are the same as in Tab. D.2.1. and Tab. D.5.2.

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1. paleogeologic time line : Eons and Eras.

Neo-Proterozoic : Tonian, Cryogenian, Ediacarian

Phanerozoic : Paleozoic, Mesozoic, Cenozoic

?4.57? ?4,0? ?2,5? billion years ago / million years ago : ?720? 538.8 251.9 66

Hadean	Archean	Proterozoic: Paleo -Prot., Meso -Proteroz., Neo-Prot. Ton. C. E.	Phanerozoic
liquid-hot rock + fiery-blazing gas		glaciations (g.) : ↑ to ↑ Huronic g. Sturtian g. ↑↑ Marinoian g. ↑	(1) ↑↑
↑water	photo↑-synthesis O <sub>2</sub> , atmospheric O <sub>2</sub> ↑	multicellular life ↑, ↑fungi, plants ↑animals	(2) ↑
↑LUCA	↑ fossils of single-celled life	eukaryotes↑, ↑sexual reproduction,	(3) ↑

Last Universal Common Ancestor

1) Karoo ice age, (2) tetrapods

flowers, brds, mammals

Tab. D.6.1. [repeated] Timeline of paleogeologic ages

2. Anthroposophic ages :

Polaris, Hyperborean, Lemuris, Atlantis, Post-Atlantis

1.) R. Steiner ~ 1920 :	Polaris ?	Hyp. L.
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Sun as well as Moon separations at the end of the respective ages : ↑ u. ↑ .

2.) Delor 2015 [repeated] : according to Tab. D.5.2.

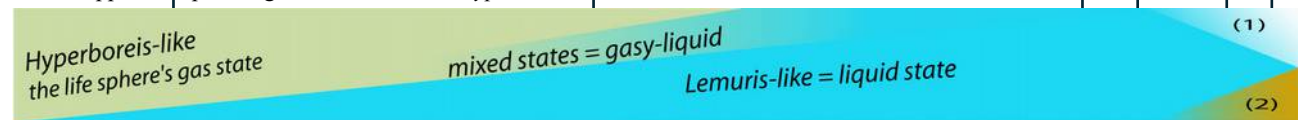
7 <sup>th</sup> Hyperborean epoch only	Lemuris
--	---------

Sun separating at the end of the Hyperborean age ↑; Moon ↑ separat.

Tab. D.6.2.V Timeline of anthroposophic ages.

3.) Adapted to Bosse, Delor, and paleogeologic findings :

above : upper life sphere : gas-like above all = Hyperborean-like ↓



below : lower life sphere : liquid above all = Lemuris-like. /

The ground densifying Atlantis-like ↑

↑Moon separation completed. Before that, earlier than the Earth's birth : Jupiter, Mars, and Sun separations.

Atlantis :

Mixed states between gases in the upper life sphere, and liquids in the lower one, i.e. between the life sphere's states similar to the

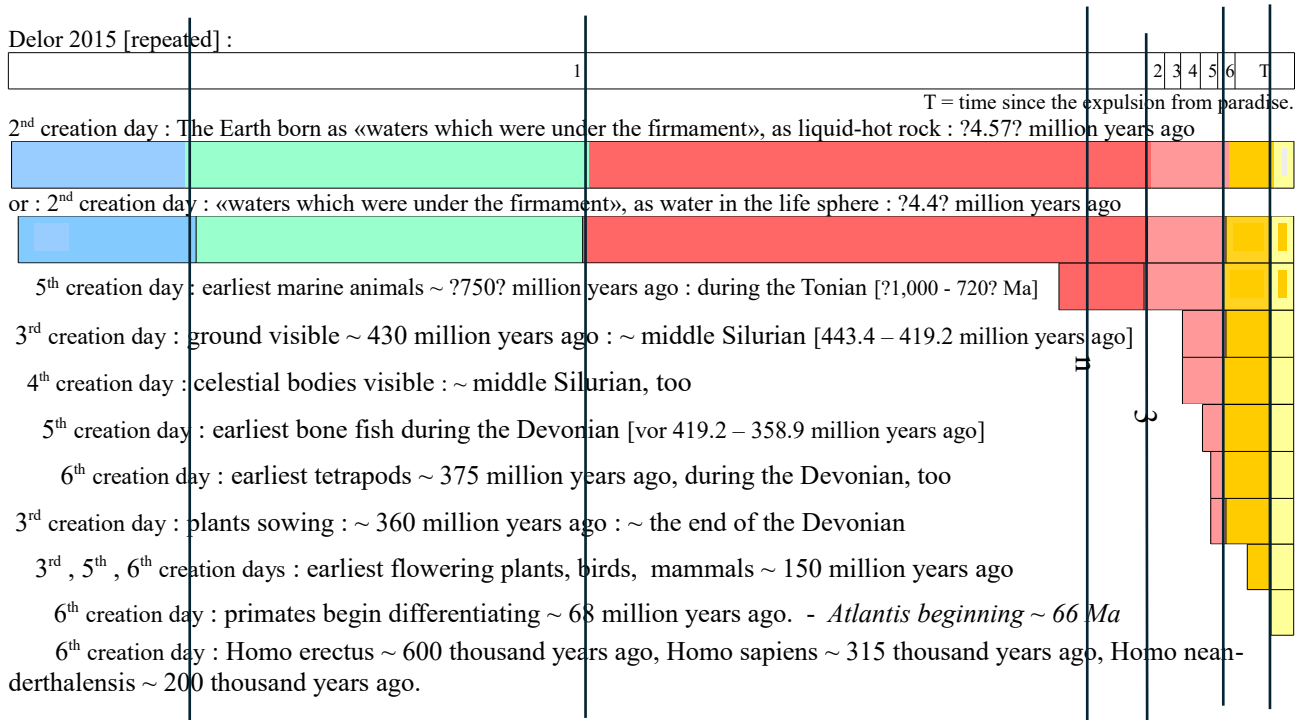
Atlantis at the warmth pole and continents : Atlantis (1) life sphere clearing ; Atlantis (2) ground densifying.

Hyperborean or Lemuris respectively.

Tab. D.6.3.V Mixed states.

## D.6. Time Lines

### 3. Creation days :



Ma = million years ago

*Tab. D.6.3.V Timeline of creation days*

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Are there any incongruities left over ? - Unfortunately there are.

First let us turn to the anthroposophic *ages* of Tab. D.6.2.V. Corresponding to paleogeology we shall take the earliest dated Moon rock as the *Moon* completing her *separation* from the Earth : ~ 24.527? billion years ago, i.e. little later, just the trifle of ~ 43 million years later than earliest dated Earth rock : ~ 24.57? billion years ago. The anthroposophic differentiation of Moon rock originating and the Moon being born from the Earth, is not applied. This saves us from the seismic and climate upheavals hostile to life, which must have accompanied the Moon originating : during the Permian [298.9 – 251.9 million years ago] according to Delor. At that time there were already fern woods, horsetail woods, and lycopodium woods, furnishing us with hard coal seams in our days. There were amniotes, too, already : animals with a navel enabling them to recreate without water.

In the same vain the *Sun* terminating her *separation* from the Earth - or rather the Earth separating from the by far bigger Sun. Non-anthroposophic paleogeology does not differentiate Earth rock originating and the Earth's birth. Viewed like this the *Sun separation* cannot have finished separating later than earliest dated Earth rock, ? 4.57? million years ago. In Tab. D.6.2.V. we might look for the *Sun separation* exactly on the time line's left hand end at the latest. Like this we would be saved from remembering «granny's dark potato hutch» in the preceding chapter D.5. , subsection «How Was Plant Life Possible When the Sun Had Not Yet Fully Separated from the Earth ?», which was to show that even today's plants may grow towards the light, and not according to gravity only. We authors had taken up this comparison because according to anthroposophy the Earth plants existing already earlier than the *Sun separation* grew towards the light's center meaning the center of the then common world body. According to Delor that would have been up to the end of the *Hyperborean*, i.e. when comparing Tab. D.6.2.V. to paleogeology, Tab. D.6.1. , : up to the end of the Tonian [?1,000 - 720? million years ago], during the Neo-Proterozoic [?1,000? - 538.8 million years ago].

*„Solange die Sonne mit der Mond-Erde verbunden war, richteten die Pflanzen ihre Blüten hin zum Mittelpunkt des Planeten. Als sie sich entfernte, orientierten sie sich nach ihr und richteten ihre Blüten zu ihr hin.“* (R.Steiner 94:105 , XVI : 6/12/1906).

*As long as the Sun was united to the Moon-Earth, the plants directed their blossoms towards the center of the planet {common world body}. When the Sun parted the plants orientated themselves towards her directing their blossoms to her.*

Still, might we not have assumed the light within the common world body was rather more evenly distributed, and less focused than when coming from the neighbors' basement window through the basement boards to granny's potato hutch ?

Unfortunately there remain further incongruities with the creation days of Tab. D.6.3.V. : The bible, Steiner, and Delor have the creation beginning with the 1<sup>st</sup> creation day. When, however, taking the creation's beginning as the singularity - and above there were good reasons shown - , then the Earth originated on the 2<sup>nd</sup> creation day : «water» either as hot-liquid ground [?4.57? Ga], or as watery substances [?4.4? million years ago] in the *life sphere* as a basis of LUCA [?4.35? million years ago]. - The concept of «singularity» arose only after Steiner's life time, and considering the polysemy of biblical «Earth» from the 2<sup>nd</sup> creation day on - world body, liquid-hot Earth rock, gel-like ground, dry land - it might also fit the very first sentence of the genesis : «In the beginning God created the heaven and the earth.» Then the concept of «Earth» might as well mean «physical matter». Taking «heaven» and «earth» together might then mean : «radiation and physical matter mixed chaotically».

Where could we find the *OLD planetary development states* in this picture ? - The solar system is a rather recent birth, just ~ 24.6? Ga, within the Milky Way's history, which is to have originated ~ ?10? Ga, a time still less to be imagined. There will surely have existed other star systems and other galaxies before. It is them we might think of. We authors did not find anything descriptive of them. We do hope there will be posterior people eager to connect anthroposophy and sciences in the mind.

The impulse of both the alternative time lines, Tab. D.6.2.V. and Tab. D.6.3.V. , came to us authors because in Tab. D.6.2. and D.6.3. incongruities had shown up compared to Tab. D.6.1. , the paleogeologic time line. Are the incongruities resolved ? Nope. We authors can just offer interpretations. Are there other incongruities at all ?

In the present chapter - even more than in the preceding one, D.5 «During Earth : Details», material contexts were stressed before all. This need not be criticized, it has even been useful concerning our topic. Still we ought not to

## D.6. Time Lines

forget that to our conviction all of us came from infinite distances before being born, i.e. from *spiritual worlds*, and shall return via the same ways to the *spiritual worlds* to work through the preceding life, and to prepare for the next one. Steiner describes the journey back in the geocentric world view like this :

*„Wir wissen, dass der Mensch die Monden -, die Merkur -, die Venus -, die Sonnen -, die Mars -, die Jupiter -, die Saturnsphäre durchmacht, um - wenn er mit den Wesenheiten dieser Sphären und mit denjenigen Menschenseelen, die auch im abgeschiedenen Leben sind, sein Karma ausgearbeitet hat - wiederum zurückzukehren zu einem irdischen Dasein.“* (R.Steiner 238:168 , XI : 9/28/1924 «last address»).

*We know that man travels through the spheres of the Moon, Mercury, Venus, the Sun, Mars, Jupiter, {and} Saturn to return to another existence on Earth after having worked through his karma together with the {spiritual} being of these spheres as well as with human souls that are present in this remote life, too.*

The itinerary through *EARTH* is not an incongruity but a necessary swerve every time because in our days the sense of returning to *material* life on Earth again and again, is to learn to be conscious of strengthening the 'I' in view of the temptations we can only be exposed to in the *material* world. See in vol. I , part 1 , chapter B.3 , subsection «*Lucifer and Ahriman*».

*„Es ist {nun} einmal - wenn wir so sagen dürfen - das Menschheitsschicksal der abendländischen Völker, dass sie sich emporarbeiten müssen aus materialistischen Untergründen und gerade in der Überwindung der materialistischen Ansichten und Tendenzen die starken Kräfte werden entfalten müssen zu einem höchsten Spiritualismus.“* (R.Steiner 120:36 , II : 5/17/1910).

*Well, it is human destiny - if we may say so - of occidental peoples to need to mount from materialistic bases, unfolding to the highest spiritualism exactly by overcoming materialistic views and tendencies with strong forces of theirs to come.*

### Snippets and Trifles

Time lines allow to regard the world of our personal experiences in relation to larger time spans. We shall see that the world we are experiencing keeps enlarging more and more. We shall probably never arrive at an end. Step by step we may feel more and more like snippets. Still we shall find ways out encouraging us again and again.

- In each set the first colored line indicates the contents of the respective time line.

- The second line (in a box) shows the time of the whole compared to the trifle.

Half an hour of a medical exam was a trifle compared to 5 days of cancer scare before.

5 days of cancer scare.

5 days of cancer scare and half an hour of a medical exam were a snippet compared to the 2 following years so far, happily relieved.

2 happily relieved years since.

2 hours of an operation were a snippet compared to 2 preparatory days and 6 days of postprocessing.

2 preparatory days.

and 6 days of postprocessing.

## D.6. Time Lines

6 hours of an operation were a trifle compared to 6 months of reconvalescence.

6 months of reconvalescence.

5 Jahre of Taming of the Shrew were a snippet compared to 18 happy years since so far. [It is true Shakespeare had favored other means.]

Taming of the Shrew

18 happy year since so far

82 years ago I {KvP} straightened up starting my first stumbling attempts at walking, and 80 years ago I leared to say 'ME !'. They are snippets - lucky and inevitable snippets to be sure - compared to all my life since.

3

80 more years since

80 years ago WW II ended (1945), and 33 years ago the EU was founded (1992). They are both snippets compared to when the Italian Renaissance began ~ 1250.

The Italian Renaissance beginning ~ 1250

1945 1992

The Italian Renaissance began in the 13<sup>th</sup> century, and in the 15<sup>th</sup> century did today's *cultural period of the consciousness soul* 1413. They are snippets both of them compared to the earliest temple site of Göbekli Tepe 11.7 thousand years ago.

Göbekli Tepe temple site 11.7 thousand years ago

1413

12 thousand years ago earliest agriculture - live stock farming as well as crop farming - was founded in the Near East, and 11.7 thousand years ago Göbekli-Tepe in today's Turkey. Since then the Post-Ice-Age / Holocene / the *Post-Atlantic age* Sentstanden, ab dann die noch heutige Nacheiszeit / das Holozän / das *Nach-Atlantische Zeitalter* is worked out, and 10.969 thousand years ago the last Flood occurred. All of them are trifles compared to the so far earliest confirmed piece of art in southern France 176.5 thousand years ago

176.5 thousand years ago

11 t.y

The earliest Homo sapiens so far lived in Morocco 315 thousand years ago, and 176.5 thousand years ago the so far earliest confirmed piece of art was set up in a cave in southern France. Both are trifles compared to early humans could master fire 1.9 million years ago.

1.900 thousand years ago

315

177 t.y.

## D.6. Time Lines

Early humans fabricated the earliest **choppers** found [hand wedges sharpened on one side only] 2.6 million years ago in Africa, and **mastered fire** 1.9 million years ago. The Quaternary / Pleistocene / the Ice Ages began 2,588 thousand years ago. All of that are snippets compared to primates beginning to differentiate 66 million years ago.

66 million years ago

2,588 thousand years ago →

**Primates** beginning to differentiate 68 million years ago, and the Cenozoic / Tertiary / Paleogene / the **Atlantic age** beginning 66 million years ago, are snippets compared to LUCA [the genetically figured Last Universal Common Ancestor] 4.35 billion years ago.

Since 4.35 billion years

68 million years ago →

66 million y. a.

The **Sun system** [aging since ~ 4.6 billion years], and the **Earth** as much as **simultaneously** [since ~ 4.57 billion years], and [concluded] **watery liquids** on Earth [since ~ 4.4 billion years] as well as [genetically figured] **Life** [since ~ 4.35 billion years] are mere trifles all of them compared to the age of the universe, i.e.

Since 13.8 billion years

since 4.6 billion years →

since 4.35 billion years

The **Sun system's age** [since ~ 4.6 billion years ago] and as much as at the same time the **Earth's age** [since ~ 4.57 billion years ago], of [concluded] **watery liquids** on Earth [since ~ 4.4 billion years ago] as well as of [genetically figured] **life** [since ~ 4.35 billion years ago] : are mere trifles compared to the universe's age, i.e. since the singularity 13.8 billion years ago.

since 13.8 billion years ago.

since 4.6 billion years ago →

since 4.35 billion years ago.

The Milky Way and its nearest neighboring galaxy within its Local Group, just ~ 2 ½ million light years away, namely the Andromeda nebula, barrel head on with ~ 122 km / 75 mi per second, i.e. < 440,000 km/h, 270,000 mi/h. In 4 - 5 billion years already they will meet and mingle with each other, just the time the solar system has been existing so far. - Where's the consolation ? A new galaxy will arise, once more a new beginning, RACHEET. Well, without us then.

Andromeda nebula

meeting

the Milky Way and mingling with it.

Well, and in the end ?

13.8 billion years

Where are my 83 years ? →

How could we cope with our justifiable despair of being so insignificant ? - Only via a belief resembling that of a child. Although we know we have meanwhile been accumulating to more than 8 billion people on Earth, and that there are many, many more animals, still more plants, not to speak of viruses, virions, and molecules : still we hope and believe that 'Our Father' is caring for us and leading us personally all the time. We would despair if we could not believe in something we tend to personalize. To our authors' minds our belief in supersensible worlds can - convincingly - be seen as a reminiscence of ages past when we were all in one with the supersensible worlds, although unconsciously then.

Are there bridges between the material world and the supersensible ones ? - This is what we shall give a try at in the next chapter. Whether *Atlantis* or *Lemuris* ever existed, may be understood as a question to their geographic, *material* existence. But following this topic up we shall take small steps arriving at *spiritual* hints as well as our near future and afar.

## D.7. Did *Lemuria* Or *Atlantis* Ever Exist at All ?

In this book we intended to respect any views, scientific ones, too, examining all of them. This is important because geographically an *Atlantic* continent or a *Lemurian* one have not been documented convincingly yet. - All the Steiner quotations are repeated from earlier chapters.

### ... Scientific Contexts : Possibilities

#### Scenario (A) : Submarine-Geologic Context with Primordial Continents

##### Might *Atlantis* Have Existed at All ?

Indeed. Notch valleys or V-valleys the way they can come up only by running water, can be found subsea as far down as ~ 5,000 m. This can be understood when considering that from the Devonian [419.2 – 358.9 million years ago] on water from the foggy atmosphere dropped down into geosynclines. From these a small part of the water poured into the red-hot ocean sinks, where it evaporated at once. Only during the last third {~ 92 - 66 million years ago} of the Cretaceous [145 – 66 million years ago] did the earliest water puddles fill the bottom of the ocean sinks (*Delor 6:155*). Meanwhile the rivers out of the geosynclines could erode notch valleys a part of which are subsea nowadays. {Repeated from subsection «The *Atlantic* Age» in chapter D.5 «During *EARTH* : Details».}

This can be found with any ocean and does not allow to localize *Atlantis*.

##### May *Atlantis* Have Submerged Because the Sea Level Rose after the Ice Age ?

Indeed as well. It is true the diagram below reaches back just as far as 24 thousand years ago, the last ice age. The ice ages began ~ 2.6 million years ago. During this time span extensive parts of water were bound up in ice so that the sea level was lower than today's, within the last 24 thousand years shown ~ 130 m lower. Yet the sea level does not give us a reliable indication where *Atlantis* or *Lemuria* were situated. What is more : Whether they had existed at all.

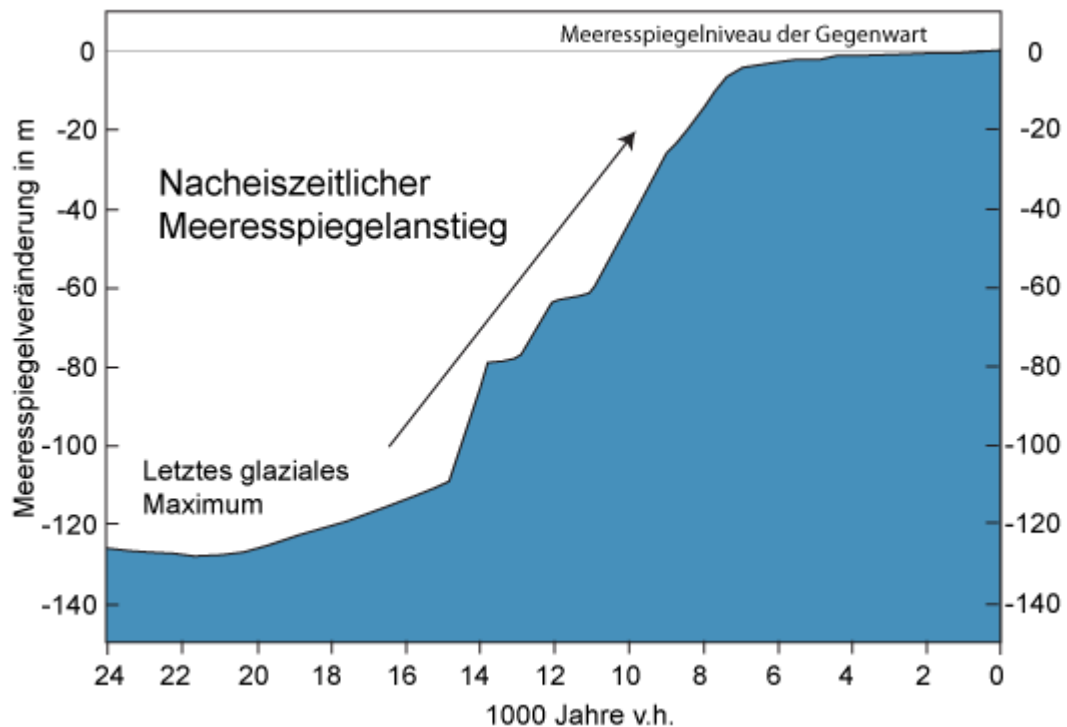


Fig. D.7.1 Sea levels since the last ice age [Leinfelder].

## Scenario (B) : Paleo - Geologic Context with Primordial Continents

Hypothesis : *Atlantis* and *Lemuria* existed before known primordial continents, and still need to be identified.

„Nun kam die große Katastrophe, die den atlantischen Kontinent hinwegfegte. Gewaltige Vorgänge im Luft- und Wassergebiet, gewaltige Erschütterungen der Erde bewirkten, dass nach und nach das ganze Antlitz der Erde sich änderte. Europa, Asien und Afrika, die nur zum kleinsten Teil Land waren, erhoben sich aus dem Wasser, ebenso Amerika. Atlantis verschwand. Es wanderten die Menschen nach Osten und Westen hinüber, und es entstanden die mannigfachsten Besiedlungen.“ (R.Steiner 112:109 , VI : 6/29/1909 , repeated).

Now the great catastrophe came about sweeping away the Atlantic continent. Tremendous occurrences in the air and the water, and huge concussions changed the Earth's face by and by. Europe, Asia, and Africa, the smallest part of which had been land, lifted themselves out of the water, and so did America. Atlantis disappeared. People migrated to the east and the west, founding manifold settlements.

Fig. D.5.3. Pangea [Wikipedia.de , repeated].

From nowadays' geologic point of view all of today's continents originated from Pangea {Fig. D.5.3.} by plate tectonics [~ 280 - 66 million years ago]. Pangea [~ 350 – 250 million years ago] originated during the Carboniferous [358.9 – 298.9 million years ago] when Laurussia - in Fig. D.5.2. mainly north of today's equator - collided with Gondwana, = all the other ones of today's continents, mainly south of today's equator. Laurussia originated from the Ordovician [485 – 443 million years ago] from Laurentia, Baltica, and Avalonia {Fig. D.5.1.}.

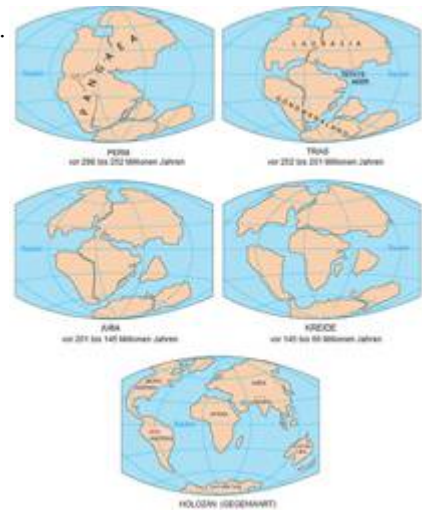


Fig. D.5.2. Laurasia + Gondwana = Pangea [Wikipedia.de , repeated].

Earlier than Pangea, too, there is a primordial continent **Rodinia** relatively undisputed, a Meso - Proterozoic and Neo - Proterozoic [~ 71,500 - 1,000? – 538.8 million years ago] super-continent that assembled ?1,260 – 900? million years ago and broke up ?750 – 633? million years ago. Opinions vary, however, concerning its place and chronology. - Before Rodinia another hypothetical ancient super-continent is supposed to have existed : **Columbia**, also known as Nuna or Hudsonland. It is thought to have existed approximately 2,500 - 1,500 million years ago, i.e. in the Paleo - Proterozoic [~ ?4,000 - 1,500? million years ago]. The assembly of this super-continent was likely completed during global-scale collisional events from 2,100 to 1,800 million years ago [en.wikipedia.org, 8/8/2024, altered]. Columbia's place and chronology are unsure, too.

According to Steiner *Atlantis* perished about the end (> 12 thousand years ago) of the *Atlantic age* (66 million years ago - 11.7 thousand years ago). There were certainly not yet any migrating humans at the time of Rodinia or Columbia. There remains a tremendous incongruity of eons.

## Scenario (C) : Contexts in Time

Hypothesis : Anthroposophy and paleogeology labeling simultaneous continents by different names.

In esoterics *Lemuria* is sometimes associated with Pangea. According to Fig. D.5.3. however Pangea was situated in approximately equal shares north and south of today's equator while *Atlantis* is supposed to have been situated

in the north Atlantic, and *Lemuria* in the south-west Indic near today's Madagascar.

So far there has not been found a primordial continent known in science that might be assigned to *Lemuria* or *Atlantis*.

### Scenario (D) : Maritime-Geologic Contexts

Hypothesis : At places where *Atlantis* may have been situated, today's ocean floors might hint by their composition that they must have been above sea level at one time.

As to *Lemuria* we authors do not know corresponding investigations. Concerning *Atlantis* :

*"(...) as a continent - as a submerged one, too, - Atlantis ought to consist of continental rock, i.e. granite, gneiss, and sediments, as is the case with the New Zealand plateau - just about half the size of Australia. In all the Atlantic, however, there is only ocean rock to be found : volcanic basalt. The exception is just the Rockall plateau and the Jan-Mayen ridge both of which may well be among the candidates for Atlantis. That was not known then <sup>1</sup> because only in the sixties could the famous drill ship Glomar Challenger bring down deep-sea drilling."* (Delor 5:30).

<sup>1</sup> {at the time of discussions about continental drift, 1915 - 1960}

### Scenario (E) : Geographic Contexts Concerning *Atlantis*

Hypothesis : 'Mobilism' or 'fixism' ?

'Mobilism' : Continents drift in the open ocean. - 'Fixism' : Continents keep their geographic positions, sinking down or lifting up with the ocean floor. Here : *Atlantis* was supposed to have grown from the Atlantic ocean floor, sinking down again in later times. *Atlantis'* rest were the volcanic islands in the north Atlantic : Azores, Canaries, Cape Verde islands, and in the Caribbean ; furthermore in the south Atlantic : Ascension, St. Helena, and the Tristan-da-Cunha archipelago. In addition there are numerous subsea volcanoes to be added nobody knows of whether they were volcanic islands eroded in the meantime, or whether they had never grown above sea level. For instance there are numerous subsea vents northeast of Lanzarote, or the Tropic Seamount near the Tropic of Cancer south of the Canaries, shortly known because of its rare earth elements.

'Fixism' stems without exception from the time when continental drift had not been generally accepted yet. Because its reason, plate tectonics, had not been discovered yet. [Alfred Wegener (1880 – 1930) : «The Origin of Continents and Oceans», 1915 and 1912. Wegener aptly claimed to argue in this line were like doubting the big bang because its cause had not yet been found. This bitterly ironic argument however did not bring him acknowledgment either.] Now and then fixism and mobilism are still discussed in our day, more than 100 years after Wegener's publication. Since the Atlantic ocean floor does not provide an indication of ever having been above sea level, mobilism is rather approved.

*"According to Wolfgang Schad Rudolf Steiner was perhaps the first one to recognize the significance of Alfred Wegener's discovery. He did not, however, leave his ideas about Atlantis ; on the other hand he never explained how Atlantis could be seen in line with continental drift."* (Delor 5:30).

Probably many millions of years of continental drift, continental submersions or liftings, as well as of sea level changes, will have brought about so many variations that scientific findings so far are not able to help decide whether *Atlantis* ever rose as high above sea level to speak of a large island or a subcontinent able to host a civilization.

### Scenario (F) : Maritime-Geographic Contexts

Hypothesis : In the Atlantic continental shelves are fitting together so well that there is no room for a continent.

*"(...) really, as geologists have been knowing for a long time, the coast lines - better : the shapes of the continental shelves 500 m deep - of northwest Africa and the eastern USA are fitting so accurately that there is absolutely no room here {in the Atlantic} for a submerged continent."*

*A gap {between the shapes of the continental shelves 500 m deep} appears only when looking inaccurately, especially when not regarding both Americas as independently drifting slabs, trying instead to push them both in today's position all in one." (Delor 5:30).*

### **Scenario (G) : Three-Dimensional Context with the *Life-Sphere***

Hypothesis : The continents *Atlantis* and *Lemuria* are meant to indicate the *life sphere* (Bosse). In there life could originate just hovering.

The *life sphere* developed over the Earth's seething magma, consisting of a wildly wafting mix of hot fog : gases and liquids. Proteins among other substances from space enabled life to originate in this fog. Rotting plants as well as animal corpses and excrements sank down forming the ground during the *Lemurian* and the *Atlantic ages*. The ground swam on the red-hot magma the same as the lithosphere swims on the asthenosphere still today, see Fig. D.3.2. Very gradually the ground cooled and could bear weight more and more.

Continent is understood to mean the hovering space wherein life could originate. Various quotations from Steiner's suggest this possibility although he never used the word *life sphere*. In 1910 e.g. he described :

„... dass das Paradies überhaupt nicht auf dem Erdboden als solchem vorhanden war, dass es vielmehr erhaben über dem Erdboden, sozusagen in Wolkenhöhen war (...).“ (R.Steiner 122:169 , IX : 8/24/1910) {Partial quotation repeated from part 1 , chapter B.3 , subsection «Lucifer and Ahriman».}

... that paradise was not at all on the ground as such, that instead it was raised above the ground, at cloud heights to say so (...).

Then "*cloud heights*" are material, not allegories such as when recalling "*paradise*" as an image. In fact an on-looker of the physical *life sphere* might have felt reminded of paradise because there was no biting nor being bitten, just food churners. Physical biting tools demand stronger physiques than were possible in a hovering state, even in one as thick as the *life sphere*. - Man dropping from the *life sphere* as late as the *Atlantic age*, shows for how long he had kept a *spiritual* state, and how late he came into a *physical* one, although as *man emerging* he had developed primordial soul states parallelly. - The notion that he had moved about on air carriers, is due to our limited imagination which can think of just today's human form. Such thoughts do not correspond to Darwin's.

In both cases however - material or allegoric "*cloud heights*" of "*paradise*" - Steiner would not have understood these notions as describing Atlantis as a continent. Here we have now a counter-example of 1909, just one, suggesting the geographic meaning :

„Wir haben öfters zurückgeblickt in die Zeiten, die der großen atlantischen Flut vorangegangen sind, in denen unsere Vorfahren, das heißt unsere eigenen Seelen, in den Vorfahrenleibern auf dem alten atlantischen Kontinent gelebt haben zwischen Europa, Afrika und Amerika.“ (R.Steiner 107:240 , XVI : 3/22/1909).

We often looked back at the times preceding the great Atlantic Flood when the ancestors, i.e. our own souls, lived in the ancestors' bodies on the old Atlantic continent between Europe, Africa, and America.

After all, let's keep in mind : Scenario (G) may be true although it has not been discussed sufficiently by the scientific community. Are there at all chances of scientific evidence ?

None of the above scenarios is fully recognized by the scientific community. That does not mean at all that there is no scientific evidence possible in the future ! So far there still may be one or the other finding coming up. *Lemuria* and *Atlantis* may have existed geographically but there is no evidence so far.

**But perhaps there are man made contexts apart from scientific ones ?**

## ... Cultural Possibilities : Indications

### **Scenario (H) : Nominal Context**

Hypothesis : The *Lemurian* continent may be associated to the *Lemurian age*, and the *Atlantic* one to the *Atlantic*

age.

The names may lead us to confusing the concepts. The *ages* were named after the continents, and *Atlantis* after Plato's Atlantis. The which however does not prove the continents existed. - We cannot be sure of the terminology because the *Atlantic age* is often - in this book, too - called «Atlantis» the same as the continent, and the *Lemurian* continent, *Lemuria*, may be confused with *Lemuris*, the *Lemurian age*, at fast reading.

«Plato [428/427 - 348/347 BCE] called Atlantis after **Atlas**. Atlas [in ancient Greek Ἄτλας *Átlas*, from the root word *τλα* the same as in *τλήναι* *tlénai*, 'to carry, to endure'] in Greek mythology is a Titan carrying the firmament at the western end of the world known at the time. So he personified the Atlas mountains. Atlas and his brother Menoitios saw they were on the losers' side after the Titans' war against the Olympians and were punished by Zeus for having been loyal to Cronus. Most of the Titans were banished to stay in the Tartarus [a section of Hades reserved for punishment of the wicked]. Atlas however received the onerous task of standing on the western rim of Gaia [personification of the Earth] there to stem Uranus [personification of the sky] so that both of them would not take up their primordial clutch. So Atlas became *Atlas Telamon* [= anchored Atlas] receiving a counterpart in Koios, who personifies the world's axis which the sky turns round.

«In zoology the name **Lemuris** was borrowed from the lemurs, an early kind of monkeys that split of from the other primates ~ 57 million years ago surviving just on Madagascar and the surrounding islands. - In 1864 zoologist and animal geographer Philip Sclater [1829 - 1913] speculated in his article 'The Mammals of Madagascar', published in the Quarterly Journal of Science, on lemurs and other related primates as well as on Lemuria which was to have been a continent in the Indic. This continent was to have broken into islands one of which was Madagascar. He concluded lemurs could not have spread from Africa because lemur fossils were missing on the African continent.

In 1868 evolution biologist Ernst Haeckel [1834 - 1919] speculated in his popular-scientific 'Natürliche Schöpfungsgeschichte' {'Scientific History of Creation'} about a sunken land bridge between Madagascar and India as well as about mankind's geographic origin :

«Perhaps east Africa may have been the place where primordial man originated from man-like apes for the first time ; perhaps it was a continent sunken in the Indic under today's sea level stretching south of today's Asia : east as far as the Sunda Islands <sup>1</sup>, and west as far as Madagascar and Africa.»

<sup>1</sup> [Greater Sunda Islands {Sumatra, Java, Borneo, Sulawesi, and adjacent islands}, and the Lesser Sunda Islands {from Bali east to Timor}]

«In 1874 Haeckel mentioned in his 'Anthropogenie' {'Anthropogenia'} under the registry entry 'Lemurien' {'Lemuria'} having speculated about man's geographical origin in table 15 of the 23<sup>rd</sup> lecture of 'Natürliche Schöpfungsgeschichte'. He claimed he had meant 'a hypothetical draft' as a 'first attempt', and insofar the criticism brought forward later on, was irrelevant. He did not repeat the map in 'Anthropogenie'. - In the 9<sup>th</sup> edition of 'Natürliche Schöpfungsgeschichte' in 1897 Haeckel called the idea of Lemuria, expressly referring to Sclater this time, obsolete because of quite recent geological findings. Now he preferred mankind's origin in Back India [French India] as the most probable hypothesis.

«It generally proved to be an error to conclude Lemuria's existence as well as that of other land bridges, e.g. between south-east Asia and south America, from disjunctive spreading of animal and plant groups. There is no room for such speculations, neither the theory of plate tectonics, valid today, nor the migrations known from animal geography, nor geology and geography of ocean floors of corresponding areas.

«From 1883 on Eduard Suess [1831 - 1914] propagated the land bridge hypothesis, naming the supposed Lemuria : Gondwana.» [Wikipedia.de 8/24].

In contemporary *clairvoyance* (*Delor 1:225*) Atlas is an *eloh* {2.3}.

The nominal contexts do not evidence any geographic existence.

### Scenario (I) : Gemological Context of Lemuris.

Hypothesis : In Madagascar and Sri Lanka [Ceylon] gems are found of such clarity, luminosity, and rarity that we may imagine an ancient land bridge between the two.

Gems crystallize «maturing» over millions of years, winning clarity. We might suppose both islands were connected geographically because they both are extracting gems of so rare a clarity as well as variety of colors and

radiance. *Lemuria* might have been a link especially since the gems' clarity indicates an ancient maturation age. {HRS}. - Possible but no proof.

## ... Spiritual Indications : Clairvoyant Certainties

### Scenario (J) : *Atlantis* Poetically - in the Atlantic

We authors shall limit ourselves to Platon's Atlantis on the 'other side' of the 'columns of Atlas / Hercules'.

#### Plato Concerning *Atlantis*' Place and Characteristics

«In his dialogues 'Timaios' and 'Kritias' authored in 360 BCE Plato described the city exactly furnishing many indications of its localization. In these dialogues 'Atlantis nesos' [something like 'Atlas' island'] is described as an island empire larger than Libya [Λιβύη] and Asia [Ἀσία] taken together [Tim. 24e], and existing the same as Athens already 1000 years before the foundation of Egypt. The main island was situated outside the 'columns of Herakles' in or at 'Atlantîs thálassa' {Atlantic ocean}, as already Herodot [490/480 - 430/420 BCE] called it [Hdt. I 202,4]. According to Plato Atlantis was rich in raw materials of all kinds, especially so in gold, silver, and 'Oreichalkos', a metal alloy Plato describes as 'shimmering like fire' [Kritias 114e] and known today as brass. A small epos [Epyllion] of the same name attributed to Hesiod [\* > 700 BCE] was otherwise called 'Shield of Herakles'.



Fig. D.7.2. *Plato's Atlantis, artist's impression [Wikipedia.de].*

«Furthermore Plato mentions various kinds of trees, plants, fruits, and animals, among them the 'biggest and most greedy animal of them all', the elephant [Kritias 115a]. The large islands' extensive plains were extremely fertile, exactly subdivided, and furnished with water by artificial canals. Two harvests were possible per year because of rain in winter and water from the canals in summer [Kritias 118c-e]. The main island's center was a plain of 3000 by 2000 stadiams, a Greek 'stadium' corresponding to some 180 m. [It has not been resolved however whether Plato meant the Egyptian 'stadium' of some 211 m really.] This plain was surrounded and pervaded by canals laid out at right angles so that a multitude of inland islands was created. There were three concentric canals in ring form around the capital's acropolis, connected to the sea by another canal. There is said to have been a racetrack for competitions, variable in length. Probably various lengths were meant for various purposes : running competitions as well as with chariots such as Poseidon's. (...). The acropolis was situated on a mountain in the main island's center. It was five stadiams wide. The innermost one of the artificial water belts was one stadium wide, the two other ones - separated from each other by land belts - were two and three stadiams wide respectively [Kritias 115d-116a]. The last water belt could be shipped on according to Plato, and was connected to a harbor on the main island's south coast by the aforesaid canal. So the Atlanteans had succeeded in connecting to the sea, and expanding their empire.» [Wikipedia.de 8/24].

## Scenario (K) : Today's Occurrences - on *Atlantis* Already ?

### Cyclopean Walls and Reed Ships

In Brittany, France, the oldest megaliths examined proved to be "aged almost 7000 years" (*Delor 1:157*). Worldwide (*Delor 1:151 f*) cyclopean walls attract attention, joined so finely that they could not have been hewn with means of our days (*Delor 1:82 - 98*) nor transported weighing up to 1200 tons. There are depictions of reed ships (*Delor 1:180*), the oldest ones between Aswan and Khartoum. Both facts combined make contemporary *clairvoyant* visualizations recognize a worldwide culture (*Delor 1:183 ff*) that could handle life forces, ether forces, in a way forgotten in the meantime, namely softening rocks, working on them while they were soft. Furthermore lifting them by levitation, transporting them on reed boats, and steering them by ether forces, too. Such were the forces Atlanteans dominated without knowing about working mechanisms, nor even being interested in them. - We can access such contexts just *clairvoyantly*.

*„Die Atlantier hatten Fahrzeuge während ihrer Blüteperiode, welche durch die wassergeschwängerte Luft hingingen. Aber später, als die atlantische Kultur schon im Niedergang war, tauchte die Notwendigkeit auf, auch das Wasser zu befahren. (...) Und ungeheure Sensation im atlantischen Leben machte es, als man zuerst auf einem Fahrzeug nicht nur durch die Lüfte sich erhob und die Luft durchmaß, sondern hinsegelte auf der Wasser-Meeressfläche.“* (R.Steiner 109/111:78 , V : 4/6/1909).

*„Und die besprochene Dichtigkeit der Luft steht für die okkulte Erfahrung so fest, wie nur irgendeine sinnlich gegebene Tatsache von heute feststehen kann. -*

*Ebenso fest steht aber auch die vielleicht der heutigen Physik und Chemie noch unerklärliche Tatsache, dass damals das Wasser auf der ganzen Erde viel dünner war als heute. Und durch diese Düntheit war das Wasser durch die von den Atlantiern verwendete Samenkraft in technische Dienste zu lenken, die heute unmöglich sind. Durch die Verdichtung des Wassers ist es <sup>1</sup> unmöglich geworden, dasselbe in so kunstvoller Art zu bewegen, zu lenken, wie das ehemals möglich war.“* (R.Steiner 11:30 , II).

*During their heyday the Atlanteans had chariots that went through the air perfused by water. But later, when the Atlantic culture was already declining, the need to drive on water came up. (...) There was a tremendous sensation in Atlantic life when a chariot not only lifted itself up into the air and traveled in the air, but could sail on the watery sea surface.*

*What I said about the air being thick - this is as certain for occult experience as any sensory fact today could be. -*

*Most certainly, too, water was much thinner than today all over the Earth. Maybe today's physics and chemistry cannot explain. Just because of the water being much thinner, the Atlanteans could direct water into technical services by using seeding forces {ether forces, life forces} in a way impossible in our days. As water densified it has become impossible {nowadays} to steer in as artistic a way as was possible then.*

### *Atlantis* - a Reed Island Civilization ?

We land rats would think absurd that an entire people might live on reed islands in swamps. But up to the second half of the preceding century Iraqians lived on swimming reed islands in the swamps of the Mesopotamian Shat-al-Arab [confluence of the Tigris and the Euphrates rivers],

*«some of which are so small that they are looking like a house boat or a Noah's Ark in their traditionally large house or buffalo stable with hardly any room to circle around the house.»* (Thor Heyderdahl 'Tigris', 1979, quoted after *Delor 1:343 f*).

In 1970 Heyderdahl related experiences on populated reed islands in Lake Titicaca as well as in Lake Chad ['Expedition Ra', after *Delor 1:339 ff*]. There are still clans living on reed islands in Lake Titicaca.

During *Lemuris* and still at the beginning of the *Atlantic age* the air was denser than today, and living beings then could live and swim therein as fishes in today's water. Up to the end of the *Atlantic age* this *life sphere* had cooled

... Spiritual Indications : Clairvoyant Certainties

down very gradually, dropping dissolved substances, clearing, and becoming less able to carry a load. So swimming in the air dropped to the land or the water surface, and by custom living on the water surface became sensible, in whatever form. - Once more a possibility, no proof.



*Fig. D.7.3. Reed islands for families in Iraq.  
"Iraq's Garden of Eden" [Spiegel.de].*



*Fig. D.7.4. Reed islands for clans in Lake Titicaca.  
Uros on Lake Titicaca [Travelbook.de].*

## Scenario (L) : *Atlantis at Clairvoyantly Suggested Places in the Atlantic*

### **Bahama Bank : Bimini Road**

Contemporary *clairvoyants* clearly identify Plato's Atlantis with the **Bahama-Bank** (*Delor 1:218*). Its position in Florida's shelf sea - the Bahamas are named after Spanish : Baja Mar = flat sea - , just ~ 50 miles off Miami, speaks against an island at low sea level. Contemporary *clairvoyants* relate : When Atlantis sank none of the primordial peoples took their exodus via near 'Florida' onto the north American continent as yet too unknown to them. As seafarers from time immemorial they fled as they had come : via the sea, thus preserving their impression of an island mythically. Situated in the southern Atlantic the Bahama-Bank was one of the bases to the southern migration route to India via Africa before all.

**Bimini Road**, east of Bimini Island, is the only underwater structure of noticeable size in the Atlantic to be in the running as the preforms of megaliths in Morocco (*Delor 1:209*). Bimini Road

*"could just have been a small subsidiary construction compared to Atlantis' capital because as to Plato it ought to have been situated in the very east of Bahama Bank, Bimini however is situated in the north."* (*Delor 1:217*).

Fig. D.7.5. shows which way the Atlanteans may have made during the Cretaceous [145 - 66 million years ago] to migrate from Bimini Road {No. 1} to northern Africa via the Atlantic.

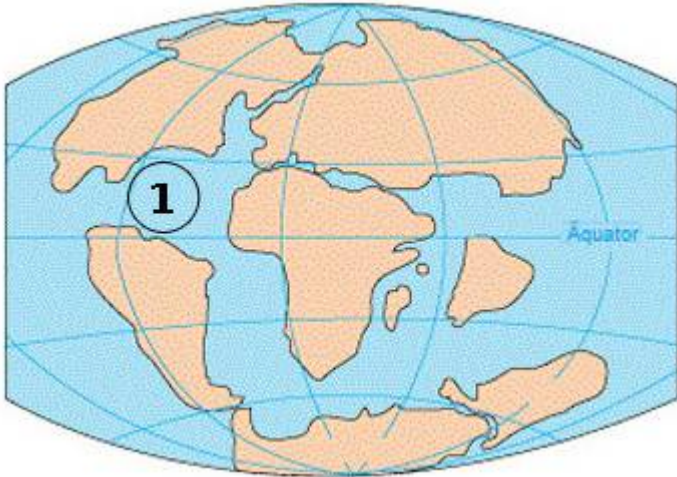


Fig. D.7.5 Bahamas, Bimini Road, during the Cretaceous. [Wikipedia.de, altered].

Whether Bimini Road is human made, is sharply disputed among experts (Delor 1:210). At any rate :

*"It features two parallel rows of rocks running dead straight, and bending into a 'J' at the end. In addition there is another straight rock row forming a double. To deny a man-made origin would make little sense considering how they are exactly straight and parallel."* (Delor 1:211).

*"Stating altogether that there had been an early megalithic culture at least with genuine rock circles on Bahama Bank as early as ice melting : There is not anything that will deny this fact although some of the structures examined are still unsure."* (Delor 1:211, too).

Shortly ultra sound examinations at Bimini Road showed that the structures in question do not have foundations. They cannot have been constructed by man. {HRS}

### Thule

forms the basis of the northern migration route from drowning Atlantis. Synonyms are Hyperborea, and Niflheim = Nebelheim {fog home}, home of the Nifelungen = Nibelungen {Nibelungs} (Delor 3:473). Geographically Thule comprises today's regions that, as seen by contemporary *clairvoyants*, had been a large island at times of Atlantis : the Porcupine Shelf [in Fig. D.7.6 : No. 2] a bit to the west of Ireland and land-connected to it at low sea level ; furthermore the Rockall Plateau [No. 3] between the Porcupine Shelf and Iceland ; Iceland itself ; the Jan-Mayen Ridge [No. 4] east of Greenland between Iceland and the Svalbard Islands [No. 5] ; and finally Great Newfoundland [No. 6], which was not yet connected to Canada at times of Atlantis (Delor 3:473).

*"The spiritual place of Thule corresponds the location. It was in the areas of old {} Atlantis. At this place the mysteries of the north were guarded connecting to the Hyperborean cultural epoch."* (Delor 3:473, too).

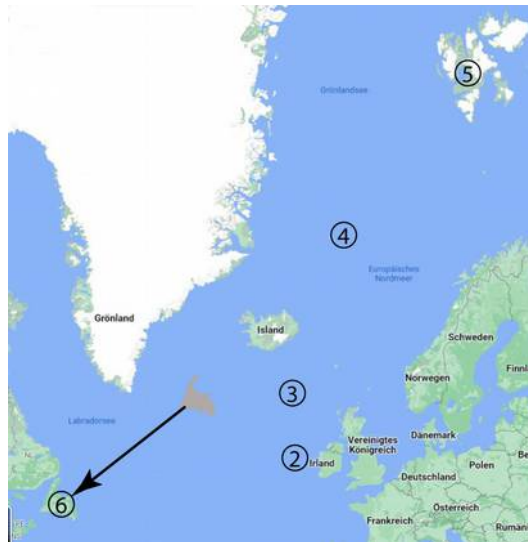


Fig. D.7.6 Extension of Thule.

From Thule the later {} Atlanteans «were led from sinking Atlantis westward» (Uehli : 'Die drei großen Staufer' {The Three Great Staufers}, as quoted after Delor 1:473).

### The Azores

are situated in the middle of the north Atlantic offering by its geography migrations to primary peoples from and into all directions. They do not however possess a shelf - the same as Madeira, the Canaries, and the Cape Verde Archipelago do not. Of volcanic origin, they shoot up from a depth of at least 1,000 m. The sea floor around the Azores consists of lava and the "finely liquid, highly viscous magma of the expansion zones" (Delor 1:391) and does not at first view offer an indication of a large island or a subcontinent.

Contemporary *clairvoyants*, however, state : Old Atlantis was a large island south of today's Azores, older than Plato's Atlantis, which existed just during the *Atlantic age*. Its granite, gneiss, and sediment rocks - proof of former land above sea level - were sucked in around the end of the *Atlantic age* „by very high spiritual beings“ (Delor 1:392), and overlaid later on by magma, lava, and subsea volcanic basalt. *Clairvoyantly* the submersion of Azores-Atlantis is described as dematerialization (Delor 1:403 ff).

"Speaking quite openly I cannot all in all prove Atlantis existed physically, nor its destruction."  
(Delor 1:402).

Nor can we authors. Not yet ? Atlantis cannot be proven scientifically. *Clairvoyantly* sure is, if it existed physically, it may have existed in at least three instances : south of the Azores, Thule, and on the Bahama-Bank. Then there remains the question why just Azores-Atlantis was sucked in and overlaid : just a question of time ?

## ... Spiritual & Soul Certainties : Hopes, Yearnings

### Scenario (M) : Atlantis in Dreams

Indeed there are people remembering their previous lives on *Atlantis*, and living accordingly. However we authors have not heard of dreamed memories of *Lemuria*. We do know : *Spiritually* there are always several possibilities. Of these we choose the ones most fit to our actual personal situation : infinitely we trust, infinitely valuable they are for us actually, but not any knowledge of this world of ours.

Our next question would be how to distinguish dreams of previous lives from hopeful fantasy. My {KvP's} personal answer is I cannot be sure so far because my dreams are so finely adapted to the mental state I am in actually. My only criteria are : Dreams from the *spiritual worlds* are by far more intensive than fantasy. Besides, trusting in that they are coming from the *spiritual worlds*, offers me wider insight into my previous lives. Thirdly *spiritual* dreams deal with far more topics than fantasy. I take the wider scope to reflect many more previous lives

than I know of so far. Still I can never be sure, and so have to live with this uncertainty. It enhances my eagerness with this topic.

Were we not going to respect any conviction ? So we conclude : At least *Atlantis* exists, even in our days. At least *spiritually*. It may mirror in some people's inner experiences such as dreams.

### Scenario (N) : Hopes for Our Future

*Atlantis* will arise again in the *etheric* {*spiritually* full of life} - as a cultural attitude in a remote future ...

„*Vergeistigt und in die Höhe gehoben wird die atlantische Kultur wiedererstehen in der Zeit der Siegel, da sich die Menschheit bewusst das Hellsehen wiedererobert haben wird.*“ (R.Steiner 104 a:116 , X : 5/19/1909).

*The Atlantic culture will reenact spiritually and be lifted up high in the time {age} of the {seven} signets {i.e. the next age} when man will have rediscovered conscious clairvoyance.*

The *Age of the Seven Signs* is to begin in 3573 CE. So there is ample time to prepare ourselves. Really ?

„*Die ersten Anzeichen von diesen neuen Seelenfähigkeiten, die werden sich in vereinzelt Seelen schon verhältnismäßig bald bemerkbar machen. Und sie werden sich deutlicher zeigen in der Mitte der dreißiger Jahre unseres Jahrhunderts, ungefähr in der Zeit zwischen 1930 und 1940. Die Jahre 1933, 1935 und 1937 werden besonders wichtig sein.*“ (R.-Steiner 118:25 f , I : 1/25/1910).

*The first indications of these new capacities of the soul {i.e. New Clairvoyance} will make themselves noticed in some souls after a rather short while {from 1910}. They will show up more clearly in the middle of the thirties, about the time between 1930 and 1940. The years 1933, 1935, and 1937 will be especially significant.*

What about that ? Has the future been beginning almost 100 years ago already ? On which plane ?

„*Natürlich kommt man nicht darauf, wenn man bloß die Ereignisse hier in der physischen Welt ansieht, sondern erst wenn man die Ereignisse ansieht im Zusammenhang mit dem, was sich in der geistigen Welt abspielt.*“ (R.Steiner 178:92 , VII : 11/18/1917).

*Of course we cannot get the idea if we are looking at the occurrences just here in the physical world. We need to envisage them in connection with what is going on in the spiritual world.*

In the preceding chapter D.5. we dealt with «Man and Matter», and in the present chapter D.6. with the physically as yet debatable preexistence of Lemuria and Atlantis. What occurs in the *spiritual worlds*, rises above the topic here. Still it enters into present days. It will be dealt with in part 3 , chapter F.9. «The Time Is at Hand !».

How did we emerge ? - In spirit, soul, and physically. In part 1 the main section B dealt with *spiritual* aspects, and in the present part 2 the main section D was dealing with our *physical* development before all. What is missing is the physical evolution of the brain from a biological point of view. The step thereafter will lead us to the development of thinking - from an anthroposophic point of view. Consequently there are soul aspects to be dealt with : the development of the 'I', of consciousness, and finally of 'I'-consciousness.

We do not know a place for the soul. This seems logical to us so far, as the soul is a *spiritual being* and cannot be allocated to any *physical* place. All the same it seems good to be oriented about brain-physiologic aspects as far as our topic is concerned. But so as not to break up the context of both main sections in part 3 we will put the main section H about brain-physiologic aspects into part 4 .

Before that, however, a short excursion into our remote future from an anthroposophic point of view.

Enjoy the expedition !

## D.7. Our Remote Past And Remote Future

As to the *OLD planetary development states* earlier than *EARTH*, could we think of notions corresponding physically ? - According to chapter D.1. «The Solar Cosmos Arising» our universe is taken to exist since ?13.8? billion years ago, the Milky Way since ?10? billion years ago, the Sun system since ?4.6? billion years ago, and the Earth arose almost simultaneously ?4.57? billion years ago. The Sun is a younger star in our galaxy, and it did not take long for the Earth to originate as his planet.

Might the *OLD planetary development states* be understood as star systems prior to the Sun's ? - We could not possibly speculate much further. Still there would have been abundant time spans. The characteristics of the *OLD planetary development states* - *fire ether* and *warmth* originated during *OLD SATURN*, *light ether* and *gas-air* during *OLD SUN*, *rhythm ether* and *liquid/water* during *OLD MOON*, and only during *EARTH* *life ether* and *matter* - should not be taken too closely. At Steiner's life time the Milky Way was the only galaxy known, and only in 1923 did Hubble prove the Andromeda nebula was too far to be part of the Milky Way. At least we might speculate that galaxies and star systems may have developed, as Steiner describes concerning the *OLD planetary development states*.

In the last but one chapter D.6. «Time Lines» we could show that discrepancies between anthroposophic characteristics of *ages* as well as creation days on the one hand, and paleogeologic as well as paleobiologic findings on the other hand dissolved when taking the singulrity, the beginning of our universe, as the beginning of *ages* as well as creation days. Then we did not have to take any difficult steps such as distinguishing between the Earth and the Moon originating, and being born. Some criteria even invited us to presume that the earliest *age*, *Polaris*, could well have originated even before the singulrity. There was a great deal of speculation, but indeed some ways out of discrepancies vis-à-vis scientific findings since Steiner had deceased.

Concerning the physics of our far future we are even less sure. The Sun will begin expanding probably in ~ ?3.6? billion years, and reaching as far as today's Earth's orbit. After ~ ?2.7? more billion years she will have grown to a Red Giant.

Concerning anthroposophic views about the far future, let us just repeat first : In Steiner's system we are actually in the 5<sup>th</sup> = *our* = *Anglo-Saxon-Germanic cultural period* (1413 - 3573 CE). The *primordially Indian cultural period* (7227 - 5027 BCE), the *primordially Persian one* (5027 - 2907 BCE), the *Assyrian-Babylonian-Chaldean-Egyptian-Hebrew/Jewish one* (2907 - 747 BCE), and the *Greek-Roman one* (747 BCE - 1413 CE) are preceding ours which will be followed by the two coming *cultural periods* : the *Slav one* (3573 - 5733 CE) and the *American one* (5733 - 7893 CE).

That is when the *Post-Atlantic age* will end (7227 BCE - 7893 CE, 7 *cultural periods* at 2,160 years each = 15,120 years).

We will note that each step in the line of development consists of 7 parts : There are 7 *cultural periods* to the *Post-Atlantic age*, and likewise there are 7 *epochs* to any other *age*. In the same way there will be 7 *ages* to a *form state*, 7 *form states* to a *realm*, 7 *realms* to a *life-state*, 7 *life-states* to a *planetary development state*, and finally the *solar cosmos* consists of 7 *planetary development states*. Does this chain continue ? - We don't know. Let us return to the *ages*.

After the *Polaric age* (the 1<sup>st</sup>), the *Hyperborean one* (the 2<sup>nd</sup>), the *Lemurian one* (the 3<sup>rd</sup>), and the *Atlantic one* (the 4<sup>th</sup>) the present *Post-Atlantic age* (the 5<sup>th</sup>) will be followed by the 6<sup>th</sup> *age* = of the *Seven Signets*, and the 7<sup>th</sup> *age* = of the *Seven Trombones*. They are notions we cannot understand yet. They are taken from the biblical Apocalypse of St. John. They cannot even be connected yet to notions of time as we know. According to Steiner time originated on Earth during the *Polaric age*.

The following terms may be classified more easily when looking at the diagrams in chapter I.2 of part 4 : «The 7 *Planetary Development States* of the *Solar Cosmos*». In addition all these terms are explained in the glossary.

When the 7 *ages* will have expired, the *mineral-physical form state* of *EARTH* terminates. The Earth will *spiritualize* again : via the *more perfect astral form state*, and then the *more perfect devachan*, which again divides into

## D.7. Our Remote Past And Remote Future

a **lower** and a **higher** one. *Devachan* is a mix word from Sanskrit and Tibetan meaning 'home of gods'. Steiner took the word from theosophy.

After the 7<sup>th</sup> *form state* the **mineral realm** ends. In the *mineral kingdom* we learned so far to produce chemical elements.

The *mineral kingdom*, the 4<sup>th</sup> **life-state** of 7, will be followed by three final *life-states*: the 5<sup>th</sup> = the **plant kingdom** - when may be learned to create living beings -, the 6<sup>th</sup> = the **animal kingdom** - when may be learned to create feeling beings -, and finally the 7<sup>th</sup> = the **human kingdom** - when there may be learned to create 'I'-beings.

What was before the *mineral realm*? - Three **elementary realms** of *elementary beings*.

*Life-states* and the *mineral realm* are what Steiner explained just once in all his oeuvre: in the 11<sup>th</sup> chapter of his „Apokalypse“ (Apocalypse) (R.Steiner 104:202, 218, and form states on pg 222 as well).

The *life-states* are parts of **EARTH**, which again is the 4<sup>th</sup> *planetary development state* of 7 in our *solar cosmos*. We know already the **planetary development states** preceding **EARTH**: **OLD SATURN**, **OLD SUN**, and **OLD MOON**. "Old" because they are gone.

The 5<sup>th</sup> *planetary development state*, **JUPITER**, follows **EARTH**. Thereafter the two *planetary development states* following **JUPITER**, **VENUS** (the 6<sup>th</sup>) and **VULCAN** (the 7<sup>th</sup>), will end our planetary development. In the anthroposophic context there is not anything to tell us what will follow. As much as there is not anything to tell us what happened before **OLD SATURN**, before the planetary development began. Still, we may anticipate: We originated spirally from an unnameable spiritual past and shall go as spirally into an unnameable spiritual future.

What however is the Earth's future going to look like? - Scientifically we know: In several billion years the Milky Way and the galaxy nearest to ours, the Andromeda nebula, will pervade each other, rebound, and pervade each other back again. Perhaps several times. At least life on Earth will probably not survive this kind of torture..

What does anthroposophy say? - The Earth, too, will continue developing spirally into an unnameable spiritual future as she had originated spirally from an unnameable spiritual past.

She will become a shining sun, surrounded by planets of its own, which will arise from ether forces, which again had collected around the Earth from human ether bodies. From people who had been wishing to approach the etheric Christ. That is what we are, more and more of us! It is us who may work to have the Earth changing to be a sun!

*„Die Tat auf Golgatha hat die Erde mit einem astralischen Licht durchdrungen, das nach und nach zum ätherischen und dann zum physischen Licht werden wird. Denn ein jegliches Wesen in der Welt entwickelt sich weiter. Was heute Sonne ist, das war zuerst Planet. Und wie sich der alte Saturn zur Sonne entwickelt hat, so entwickelt sich unsere Erde, die jetzt Planet ist, zur Sonne heran. Der erste Anstoß zum Sonnwerden unserer Erde ist damals gegeben worden, als das Blut aus den Wunden des Erlösers auf Golgatha floss. Da fing die Erde zu leuchten an, zunächst astralisch, also nur für den Hellseher sichtbar. Aber in der in der Zukunft wird das astralische Licht zum physischen Licht werden, und die Erde wird ein leuchtender Körper, ein Sonnen-Körper werden.*

*Ich habe Ihnen schon öfter gesagt: Nicht dadurch, dass sich physische Materie zusam-*

*The act on Golgotha pervaded the Earth with an astral light which will by and by become an etheric and then a physical light. Because any being in the world continues developing. What is Sun in our days, was a planet first. As OLD SATURN developed to become a sun {by separating from the rest of the solar cosmos}, so the Earth, which is a planet now, will develop becoming a sun. The first impetus to become a sun was given to the Earth at the time when the blood flowed down from the Redeemer's wounds. Then the Earth began shining, astrally at first, i.e. visible to clairvoyants only. But in future times the astral light will become a physical light, and the Earth will be a shining body, a sun body.*

*Once and again I have been telling you: A world body does not originate from*

*menballt, entsteht ein Weltenkörper, sondern dadurch, dass von einem geistigen Wesen aus ein neuer geistiger Mittelpunkt, ein neuer Schauplatz geschaffen wird. Vom Geistigen aus beginnt die Bildung eines Weltenkörpers. Jeder physische Weltenkörper ist zuerst Geist gewesen. Das, was unsere Erde einmal werden wird, ist zunächst das Aurisch - Astralische, das hier anfing, auszustrahlen von der Erde. Das ist die erste Anlage zur künftigen Sonnen-Erde. Das aber, was damals ein Mensch mit seinen trügerischen Sinnen gesehen hätte, das ist ein Trugbild. Das ist gar keine Wahrheit ; das hört auf zu sein. Je mehr die Erde Sonne wird, desto mehr verbrennt diese Maja im Sonnenfeuer, geht auf darinnen.*

*Dadurch aber, dass damals die Erde durchstrahlt worden ist von neuer Kraft, dass die Grundlage gelegt worden ist zum Sonnewerden der Erde : dadurch war die Möglichkeit gegeben, dass diese Kraft auch die Menschen durchstrahlt. Es wurde der erste Anstoß zu dem gegeben, was ich gestern dargestellt habe : zum Ausstrahlen der Christus-Kraft in den ätherischen Menschenleib. Und durch das, was da in ihn einstrahlen konnte, dadurch konnte dieser ätherische Menschenleib neue Lebenskraft aufzunehmen beginnen, wie er sie braucht für die spätere Zukunft.“ (R.Steiner 112:254 f, XIII : 7/6/1909).*

*physical matter clumping, but from a center point, a new locale. It is from the spiritual that a world body begins originating. Any physical world body was spiritual first. What the Earth will become some time, is auric [golden]-astral at first, beginning to radiate from the Earth. It is the first anlage of the future Sun-Earth. What however a human might have seen with the treacherous senses of his, would have been a chimera. It would not have been truth at all ; {eventually} it will not exist any more. The more the Earth will become Sun the more this Maya {-Earth} will be scorched in the Sun's fire, {and} will be absorbed within him.*

*Since however the Earth was penetrated by {the Christ's} new force then {at Golgotha}, {and thereby} the basis was set to the Earth's becoming a Sun : so there was the chance that this {the Christ's} force might pervade humans, too. This was the first impulse to what I posed yesterday : radiating the Christ's force into human etheric bodies. These etheric human bodies could begin receiving new life forces by what radiated into them, and this is what they need for the coming future.*

It will be a *spiritual* future. The Earth will become a *spiritual* Sun, radiating afar as *the Christ's force*. Will we succeed in partaking ? How far shall we be able to go along with this force ? - By introducing it into consciousness of ours on Earth. To do so we need to make our consciousness accessible to *the Christ's force*. By forming our consciousness, educating it, cultivating it.

But how did human consciousness originate in the first place ? That is what part 3 is going to begin with.