

Aether - Physics and - Philosophy

- 03. Local Movement** The strenuous search for a possibility of motion within the gapless aether.
- 03.12. Summary Please read this commentary first.
- 03.01. Basics and Objectives Starting points and contents of this section.
Some parts are reduced.
- 03.02. Overlays Overlays of circle-movements discussed by the example of sea waves.
That's an impressive chapter, essential for understanding the aether.
- 03.03. Volumes and Shapes Aether can only move into three directions same time, right angled to each other.
Tiring. Not worth to study. Only an additional proof for right-angle effects.
- 03.04. Swinging Disc Local movements are swinging inside, decreasing to the outside resting aether.
Clear explanation of central swinging areas.
- 03.05. Circulating Waves Swinging movement of the nucleus demands a swinging by right angles, in shape of a circulating wave.
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- 03.06. Tumbling Axis Aether-volumes are to exchange via poles in shape of swinging longitudinal axis.
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- 03.07. Bending and Winding Possibility and necessity of movements of the aether within the aether.
All movements inevitably must run into three dimensions same time.
- 03.09. Movement's Drive Motor of steady movements within Potential-Vortex-Clouds.
Essential insight: why a local motion pattern keeps together.
- 03.10. Potential-Vortex-Cloud Diverse appearances of Local Aether Movement, from electron to galaxies
Many important aspects are mentioned here, which are detailed at many chapters much later.
- 03.11. Wandering Potential-Vortex Potential-Vortex-Clouds moving ahead through the aether, e.g. photons, light speed, rotation of earth etc.
Many basic insights were mentioned here - and all items were confirmed in later chapters.

03.12. Summary Local Aethermovement

Commentary

This third part of Aether-Physics and -Philosophy was written in 2003/2004. In retrospect, 2015, it's most astonishing so much important aspects were already mentioned - and each of these points of view were confirmed at later part 08. 'Something Moving'. So that part 03. prepared the ground for later intensive researches.

However, these early papers show one grave mistake: there is not only that unique possibility of 'Potential-Vortex-Clouds' for local motions within the aether (as claimed here) - but unlimited possibilities of local pattern (as detected later).

That fault is intelligible in retrospect: it was a bold proclamation to name that gapless aether the primary matter of all being. Based on philosophic and science-theoretic considerations this claim was a simple logic impelling deduction (like shown at first and second part). However it was hard work for months to search for a possibility for motions within that 'monolith'. Finally I found one single pattern in shape of that Potential-Vortex-Cloud. Naturally it would fit at its best, if that unique aether would allow only one unique motion pattern.

So at following chapters this was stated as an 'ultimate wisdom'. Years later I found additional possibilities for local pattern - until finally resulted a real typology of local motion pattern. Nevertheless for many readers, these preparatory works of third part might be an interesting introduction to this demanding subject of primary matter.

03.01. Basics and Objectives

Starting Points

At part 01. Introduction was shown, there is really only one matter within the universe. That aether is a pure continuum, so not composed by any parts, but un-dividable and gap-less, whether compressible nor expandable, also not elastic, so everywhere of same 'density'.

This aether would be purely passive, i.e. without any energy and without any possibility of movements. However, as second fact of real sure knowledge was detected, besides the matter of aether exists movement within the universe. As nothing else than aether exists (that could be in motion), only that aether can be in motion.

At part 02. Universal Movements was shown, which kind that motion must be. There is a background-swinging, where all points of aether are moving parallel to each other. These movements are swinging turns into different directions, by different speeds and radius. All movements mutually are overlaying and thus resulting complex spiral-cluster-tracks.

Axioms

The properties of the aether and its basic pattern of universal movement can be deduced from real existing facts. Opposite, it's not possible for human understanding, why the universe is existing at all. A 'homo faber' can only imagine, something has to be made by any parts or has to be produced. Thus humans 'think' some God is responsible for the existence of universe.

There are diverse genesis, e.g. some spirit did install 'waters' (here the aether), introducing 'light' and breathing 'life' into (here motion), divided the coarse from the waters (here initialised Bounded Aether).

So we don't know why, but only know something exists - here called the aether - and that stuff is in motion (here universal movement) and above this, local movements of some other kind exist (e.g. like photons as 'brick stones' of radiation) and also some 'solid bodies' are existing (material-hardy appearances).

Electron-Movement

At this part 03. Local Movement now are discussed these coarse pattern of movements (in relation to universal movement). As an example will serve the electron, which can be a free separated appearance, on the other hand is a brick stone of diverse chemical elements (like discussed at later parts).

At earlier workouts, I often compared the aether with a monolith, in order to demonstrate the property of a gapless solid body. Even a monolith appears stable, inside everything is moving: atoms and molecules are trembling within their grid-structures, electrons run around the nucleus and also the nucleus are full of motions - so I thought, there could exist movements of most diverse patterns within an aether-monolith.

By detailed considerations however it got obvious, many movement pattern are not possible, e.g. all common movements of the material appearances are impossible, like discussed at previous part. Lastly, only one possible pattern of movements did remain - and I was shocked (and now did understand intuitive reservations of most readers and discussion partners versus my strict opinion concerning the aether-continuum).

Could the obvious variety of material occurrences be constructed by only one type of brick stone? That movement pattern well could exists in diverse sizes, however e.g. all atoms should be build by only that uniform movement element?

On the other hand was stated, laws all times are strict limitations, eliminating most possibilities, often reducing to one single case. Instead of many kinds of 'materials' was detected, all chemical elements are build by rather few different brick stones (and it was stated here, lastly all sub-elementary particles are no hardy bodies, but are sections of tracks of universal aether movement). One single stuff of aether is sufficient for most complex structure of universal movements. So one single type of coarse movement pattern well could do for most different physical occurrences. Possibly.

Clear sign for this assumption are the rules of electromagnetism, which already are present completely within movement pattern of electron. Electric fields and magnetic fields and induction are well known and practically the complete civilisation is based on the usage of electromagnetism. However up to now, nobody can explain the strange connections, e.g. of these each right-angled effects.

If now the properties of the aether and its basic background movements, in principle allow only one single pattern of coarse movements, and just this pattern inevitably shows the typical properties of electromagnetism - it's a grave argument for the aether presented here.

At this part 03., now first time 'material' occurrences are described as local 'coarse' movement pattern. These movements of 'Bounded Aether' are rather large in comparison with the universal aether movement (some scales wider). The Free Aether thus now is called 'resting' and its aetherpoints are called 'stationary' (even the basic movement naturally exists, however by much smaller dimensions compared with these wide coarse movements).

For easy understanding of these movements, at the following chapter is discussed a simple example of overlays of turning movements. Some essential elements of these movements are well to explain by well known sea waves. At next chapters is discussed, how movements can come up even within a constant volume of aether - with far reaching consequences of

these simple geometric facts. Afterwards, movements of electrons are discussed step by step and some further rules and laws and appearances are pointed out.

03.02. Overlays

Sea Waves

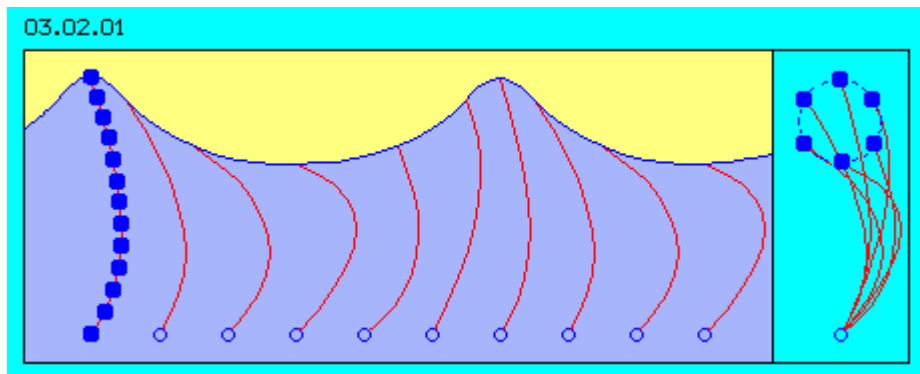
Here are discussed sea waves as an appearance of the material world. As mentioned above, these 'material' movements are not quite similar to possibilities of movements of the aether (because the aether has no parts, opposite e.g. to water). Nevertheless, some essential elements resp. problems of aether movements can well be demonstrated by the example of sea waves.

At picture 03.02.01 schematically is shown a section of 'sea with waves'. First impression probably is, that wave is not drawn exactly. For us, 'nice' waves are like sinus-waves. At an earlier chapter for example is shown a wave sinus-shaped (produced by throwing a stone into the water). These waves result a lifting and falling at a symmetric process.

The waves of the sea however are produced and driven by wind (here running from right side to left), and the waves come up by turning water movements. Indeed, these waves show 'valleys' much longer than 'mountains', like every water-sportsman knows - and doesn't like 'short-waved' seas.

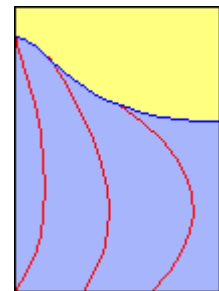
Deep Waves

The wave is not only a matter at the surface but waves reach far down in the water. However anywhere deep downside, the water keeps calm, here marked by stationary points downside of the picture.



stationary points downside of the picture.

At this picture left side is marked a line of water parts, from the bottom of resting water up to a waves tip. Further right side are drawn only these 'connecting lines' between each corresponding water parts. These red lines e.g. could also represent long stalks of seaweed.



If now a wave-mountain becomes a wave-valley (like drawn further right side), the water masses of the mountain has to sink down, i.e. the water previously positioned there has to escape. This motion is marked by diverse connecting lines, all show same length however are bended to right side more or less. The water parts downside are moving similar to the water parts at the surface, in total of same size.

Circled Movement

At this picture right side, diverse connecting lines from the resting water (starting at one point downside) with their different curves further up are drawn. Resulting is the well known fact, waves in reality exist of turning movements. Waves at a water surface indeed produce the impression of water masses running ahead, however waters in principle stay stationary and are only moving at circled tracks.

This animation shows an even smaller section with that wave 'rolling' from right to left side. The obvious appearance are water is moving from right to left side, however in reality the

water downside is resting and further upward the connecting line of neighbouring water parts is swinging at circled tracks.

Very deep Effect

Water parts can shift alongside each other. Nevertheless the water masses between the connecting lines should be constant, i.e. should show same cross-sectional surface all time. This picture of submarine movies with swinging seaweed is well known, and the distances between these 'trees' should be constant all times.

At this picture however, it's obviously not the fact. So the points of 'resting' water should be much deeper. The appearance of a wave at the surface thus practically is only a symptom of much wider water movements in much deeper regions.

This insight is rather important for movements of the aether, because within the aether no parts can shift alongside inner border surfaces. Within the aether thus each wide movement (analogue to the wave at a water surface) demands rather large area of balancing movements (by really 'astronomic' relations, e.g. by millions larger distances).

Different Speeds

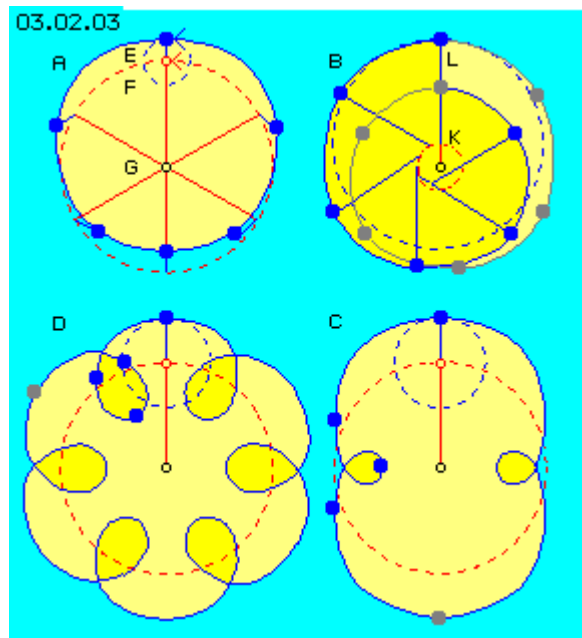
The water at the surface 'storms' ahead rather fast, at least the water-mountains, while the water downside swing back relative slow. This process is not to achieve by simple circled movement (like at picture upside), because this turning movement would simply turn with constant speed at a constant radius. Different speeds at different radius demand an overlay of circled movements. Some samples are shown at picture 03.02.03.

At A are marked diverse positions of a water particle during the movement process (blue points). This part of water is turning at a rather short radius (E). It's turning point (F) by itself is moving at a circled track with rather long radius around second turning point (G).

Resulting of these both overlaying turning movements is a spiral track (blue and grey) of that water particle. The speed of each section of the track is marked by different distances between the points. Upside are overlaid both movements showing momentary to left side, i.e. there the water moves fast to left side. Downside however, the turning at short radius shows into opposite direction of the turning at long radius, so the water down there moves slowly back to right side.

So movements of sea waves are not only simple circled movements, but real movement pattern resulting by overlays of at least two circled movements. This movement-system shown at A, now is overlapped by analogue movement's pattern at both sides (thus not only next to left and right side, but real overlaps continuously), where each neighbouring movement is phase-shifted (rather important aspect within the aether, described at later chapters).

So each simple sea wave is a system of rather complex overlaying turning movements. These movements are possible within two dimensions (like here at surface of pictures), because the water parts can shift alongside neighbouring parts.



Analogue to these processes are movements of the aether, however there are no separated parts, so neighbours can not shift alongside each other. That's why movements of the aether within the aether all times must occur into all three dimensions same time (as discussed next chapter).

Different Tracks

At following chapters diverse overlays of turning movements are involved. Therefore at this picture 03.02.03 are drawn some further variations.

At B as an example, the radius are arranged vice versa: around the central turning point (K) is drawn a turning at short radius. At each position of that circled track a second turning works at much longer radius (L). Resulting of this combination is a spiral track becoming steady more narrow (positions at blue points) and at the following phase becoming steady wider (positions at grey points).

At C opposite, the constellation is analogue to A, however the radius of the outer turning is some larger and the relation of angles speeds is different. Instead of an oval track (at A), now results two wide and two narrow bows, where the absolute speeds are quite different.

At D, the speed of the outer turning is increased once more, so many loops come up, however the differences of speeds and distances are less.

These few examples may demonstrate, overlays of two circle-round turning movements with each constant turning speed, depending at relations of speeds and radius result most different tracks with most different absolute speeds (like discussed in details at some following chapters).

These considerations concerning sea waves can not be transferred one-by-one to the movement processes of the aether (because the water exists by particles, however the aether is part-less). Nevertheless, the possibilities like problems shown here are similar within the aether. However, within the aether all movements must show into all three dimension same time - like detailed at following chapter by some geometric aspects.

03.03. Volumes and Shapes

Analogue to Sea Waves

At previous chapter was shown, how sea waves give the impression of movements ahead by kilometres, while the real movements are limited to a rather narrow area. The water moves only at circles, however by overlays. The movement of local swinging is marked e.g. by connecting lines (resp. seaweed-trees) from resting water at bottom up to the surface with its heavy motion.

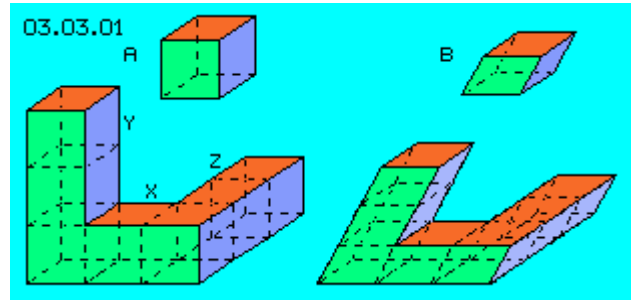
Analogue to these impressions, now the basics of local movements of the aether are considered. Opposite to water, the aether is a part-less real continuum, so no parts can shift alongside each other, no border-surfaces nor flow-threads exist.

Fictive Grid

If now at the following is talked about grid-lines or grid-surfaces or volume-units within three-dimensional bodies, so these divisions are fictive and the terms are used only for mental considerations. However it's paid attention to the fact, all fictive volume-units keep constant during the processes, so the invariable density of the aether is obeyed. So these abstract considerations represent the reality of the aether quite well.

At picture 03.03.01 at A a cube is drawn and one could imagine, whole universe is divided (fictive) into such unit cubes. Aether-cubes like this, thus would be arranged narrow together with same height (Y) and width (X) and depth (Z). However, this kind of divisions makes no sense, because each shifting of grid-lines (resp. grid-surfaces) would reduce the volume of the units.

At this picture at B, an alternative division is drawn by 'sloped cube'. This unit e.g. shows square surfaces downside and upside, right-angled surfaces at left and right side, however parallelogram surfaces at front side (green) and backside. The volume of this unit is the basic surface multiplied by the vertical height.

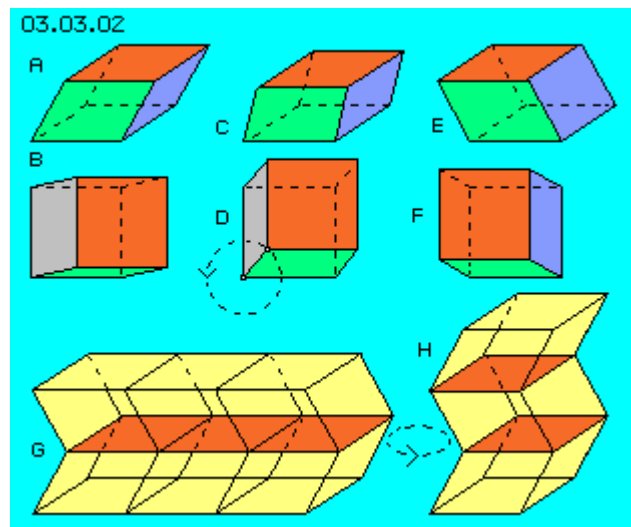


Circle Movement

At picture 03.03.02 previous sloped body is shown once more, at upper row by diagonal view, at middle row by view top down. At A (by diagonal view) one can see the upper surface (red), the front surface (green) and right surface (blue). The upper surface is shifted to left side and some backwards versus the bottom surface (dotted lines), so at B (by view top down) one can see the upper surface (red), the front surface (green) and left surface (grey).

If the upper surface rests at same level above the bottom surface, the volume of that unit is constant. So the upper surface could be turned around at same level, without changing the volume. By this movement, all aetherpoints would turn parallel at circled tracks.

One possible position is shown at C (by diagonal view), where the upper surface is shifted some backward (while the bottom surface is stationary). At D (by view top down) the edges frontside-left (of upper- and bottom-surface) are marked and a circled arrow points the direction into which the connecting line is swivable. At E and F for example, the upper surface is turned further left side.



Parallel to this line, also three other lines (showing upward) would swivel around their edges. Each point of the bottom surface could be connected with a corresponding point of the upper surface (thus representing neighbouring aetherpoints). All these lines would swivel same kind parallel to each other, thus all aetherpoints from bottom to top would turn at each larger circles.

At G are drawn three of these sloped bodies one besides next and mirrored upside three likely bodies. The grid surface in the middle (red) is the mutual connecting surface. The bottom surface of downside bodies and the upper surface of upside bodies are resting, however the middle surfaces can swivel around (by constant volumes).

At H are mounted three of these sloped bodies one above the other. Even the surfaces most downside and most upside are stationary, the layers between could move by circles.

So it would be possible, through the whole universe one or several layers could move at circled tracks. However, this would be a universal movement (however no real one), so this possibility is not relevant for locally limited movement pattern.

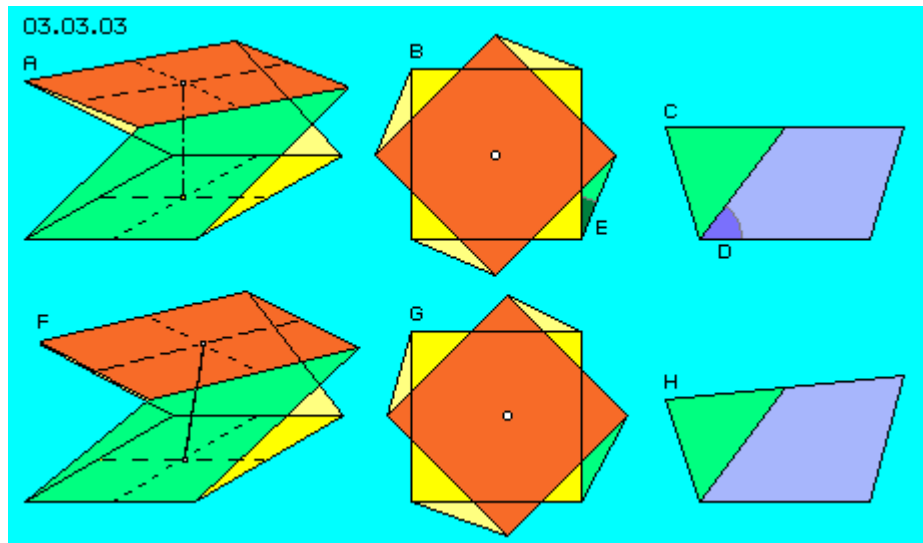
Twisted Cubes

Previous right-angled grid is no aether-like division, the previous sloped body already allows some aether-like movement, however much better fits a 'twisted' cube to universal aether movements. This shape of geometric bodies are shown at picture 03.03.03.

At A this body is drawn by diagonal view. The bottom surface is marked yellow. Above that surface, the upper surface (red) of the cube is twisted by 45 degree. The side surfaces thus also are twisted planes, only the front surface is marked green.

At B this body is shown by view top down, where the upper surface (red) is shifted above the bottom surface (yellow). The lines between the upper- and bottom-surfaces are drawn (however not the planes of the side surfaces).

At C is shown the view from right side onto this body. One can see only the right surface (blue) and a part of the front surface (green). All side surfaces are shaped like twisted parallelograms.



This body is arranged that kind, the side-lines show 45 degree to the bottom lines. This angle is marked by D. By the view top down this line shows 22.5 degree to the edge-line of the bottom surface. This angle is marked by E.

Deformed Cubes

Now this body should be deformed, however without changing the volume. At H is shown the new view from right side. The frontside edge (left) there is dropped a little bit, the backward edge (right) is lifted correspondingly. Both other edges rest at their original level, so the average height of the body is constant and thus also the volume is unchanged.

At G is shown, this tilting aside of the upper surface (frontside-down, backside-up) is only possible, if the upper surface is shifted to right side same time (the upper surface no longer rests central above the bottom surface, so the graph G is not symmetric).

At F this new shape of the body is drawn by diagonal view, where the frontside edge has moved some down and back edge has move some up. Same time, the axis between bottom- and upper-surface now is tilt to right side. The following picture shows the reasons for that coupling of both right-angled movements.

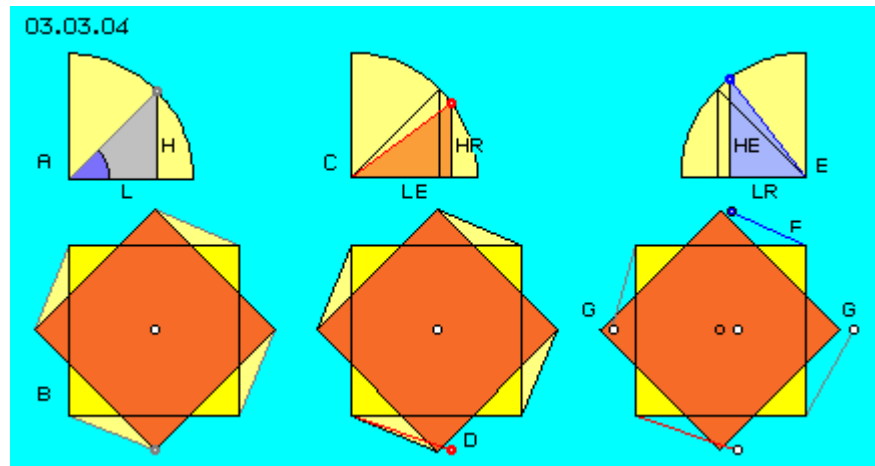
Tangens 45 Degrees

At picture 03.03.04 at B, once more is shown the starting situation (like at B of previous picture) with the upper surface (red) symmetric above the bottom surface (yellow). Upside at A is drawn the frontside line between upper- and bottom-surface (corresponding to B

downside). This line shows 45 degree to the bottom, so the height H (between upper- and bottom-surface) is like the horizontal distance (L) between the edge points (upside and downside).

At C now this line is drawn by some smaller angle, so the height (HR) of this edge of the upper surface is

reduced, and the distance (LE) between the edge-points is enlarged correspondingly. By view top down, the new position of this edge is marked by D.



Opposite, now at E is lifted the opposite edge (by same angle), so the height (HE) is enlarged and the distance (LR) between the edge-points is reduced. By view top down, the new position of this edge of the upper surface is marked by F.

So by this tilting of the upper surface, not only both edge-points did change their height, but both are shifted to right side (by same size). So also both other edge-points (by view top down left and right) now are shifted to new positions G (while their height is unchanged, thus these edges did only swivel like previous sloped bodies).

Tilting of the upper surface inevitably results a shifting aside. Naturally also a shifting of the upper surface vice versa would force a tilting of the upper surface same time (opposite to previous sloped bodies with all times parallel turnings).

The indispensable mutual interdependence of both movements thus produces the result shown at previous picture 03.03.03: Tilting into sideward direction (H) resp. towards frontside (F) results same time a shifting of the upper surface to right side (G) resp. same time a tilting of the central axis.

Only within Aether-Continuum

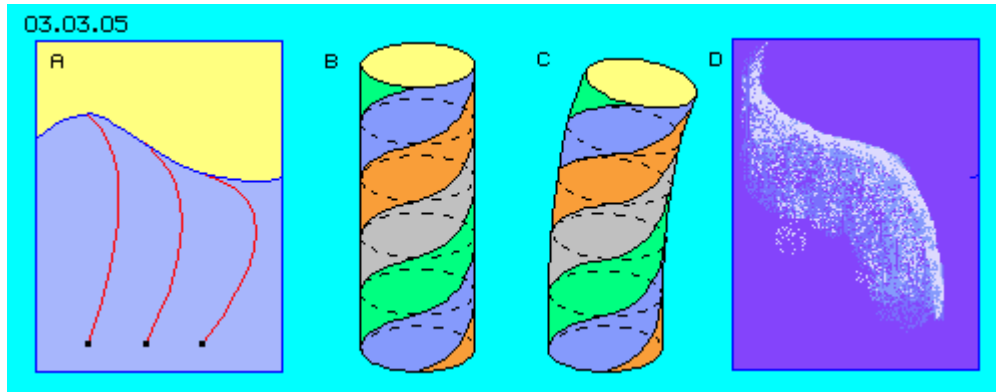
The difference between a medium with parts and without parts must be pointed out once more. Within a medium of particles (e.g. gas or water or like the aether normally is assumed) the surfaces of previous right-angled cubes could be shifted without any problem. If one edge of a surface moves down, the particles located there could easy move into direction of opposite edge lifted upward (by internal shifting versus each other). If the average height of that body is constant, thus any shape could be achieved by same volume.

Only if the aether is assumed to be real (part-less) continuum, all neighbouring aetherpoints must be neighbours all time and movements are possible only in shape of turnings (like previous moving down / up of two edges and simultaneous overlay by swivel of both other edges). Only that part- and gap-less medium demands inevitably these both movements right-angled to each other.

Indispensable coupled Movements

At picture 03.03.05 at A, once more is shown the starting basis of sea waves with connecting lines of neighbouring water parts. This drawing shows, the different distances between resting water (downside) and water part in motion (upper parts up to the surface of water) are equalised (or becomes possible) by more or less bending of the connecting line.

These processes are not realistic represented by straight lines or right-angled grids. Neighbouring water parts are not arranged straight line,



but only neighbours at bended lines show similar swinging movements, only marginally differing from one part to the next - by overlay of turning movements within a vertical face.

Analogue to these processes, local movements also within the aether will work, however only by overlay of turnings (resp. bendings) right-angled to each other. Because the aether has no edges, here at B is drawn a round cylinder and 45-degree are marked by twisted bands around the cylinder. At C is shown, this aether-cylinder is to bend and twist only into two directions same time. Analogue to movements of previous example, also here the (fictive) cross-sectional faces are tilt and shifted gradually, while the central longitudinal axis is bended continuously by a spiral curve.

If a material rod (or pipe or tube) is bended into only one direction, tension within the material comes up. Only if the bending is combined with a twisting motion, a tensionless curve is to achieve (e.g. like a willow rod is handled for building baskets or a garden hose is easy rolled up). As the aether is neither compressible nor expansible (thus can't equalise previous tensions), every aether movement must occur by two turnings right-angled to each other simultaneously.

This picture of a bended rod (C) thus is not quite correct as the aether really has no border surfaces. Analogue movements occur also outside of this fictive borders. Movements of each outer neighbouring area however must not do the process totally same kind, but gradually 'faded' resp. locally introverted (like described at following chapter).

Real Appearances

These curves bended within space are well known. This picture right side at D for example shows a polar-light with its impressive lines. Also the photos of nucleus-research show tracks like these (if interpreted within three dimensions) caused by 'annihilation of particles'. Most direct hint to the real existence of such movements however are the laws of electromagnetism, the most popular usage of aether movements by any electric apparatus.

It's well known, the magnetic field exists exactly right-angled to the electric field and the induction occurs right-angled and forces work right-angled. This strange behaviour is the special property of all electromagnetic appearances, on which practically all other physical occurrences are based. This right-angled effect is contradicting to all experiences of pure mechanical forces and up to now there was no explanation for these phenomena. That's why one normally works only by abstract term of fields, sufficient for technical aspects.

It's no question: all appearances of electromagnetism are real movements of real aether (not of abstract fields) and that aether only can be a real continuum. Only based on this assumption, the general laws of right-angled 'mutual affects' are explainable – as they are simple mechanical processes within the aether-continuum and its strict limitation of possibilities.

The only problem is, not to think by parts and right-angled grids, but to see occurrences as expression of a strict structure of movements within the 'amorphous' aether (i.e. that part- and border-less medium). Next chapter now will describe this basic structure by further details.

03.04. Swinging Disc

Steal Spring

At previous chapter was shown, local movement within the aether can only occur into two directions same time. The example of the cylinder with its twisted connecting lines and its bended longitudinal axis are comparable to a steal spring. The windings of spring can be more or less narrow to each other, each change of shape however would be inevitably combined with corresponding bending of the longitudinal axis.

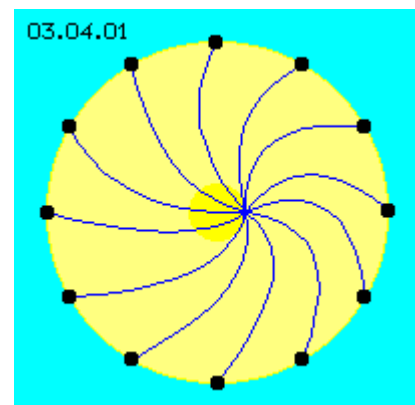
Within the aether exist neither grid-lines nor border surfaces, however these (fictive) twisted tracks show, which kind of aether movements can only occur: all times only by more or less bending. Movements within the aether are possible anywhere - however only into directions of both coupled movements.

In order to discuss the possibilities of movements step by step, here at first are discussed the movements only within one surface, thus only two-dimensional. Demanded movements into third dimension are discussed at following chapters. Above this, at first this area of local movements is assumed to be stationary within the universe. The wandering of these 'whirlpools' through the aether universe is discussed some later.

Outside Calmness, inside Motion

Motions within the aether in principle are quite other kind than motions within 'material world'. A material car for example rolls ahead at the road, so this body is shifted alongside its supporting surface. A material wheel rotates around its axis, at outer circumference moving by faster (absolute) speed than further inside. Typical properties of mechanical movements of material occurrences thus are linear movements (of any shape) and 'rigid' vortex (of round turning shapes).

At picture 03.04.01 is shown the opposite principle of local movements within the aether. Black points at outer circumference represent Free Ether. These aetherpoints are only 'trembling' at spiral cluster tracks of universal aether movement, by very small distances. So these points here are called relative stationary resp. 'resting aether'.

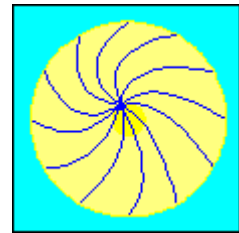


Each aetherpoint is located directly besides its neighbouring points. Neighbouring points here are marked by bended connecting lines. These curves more or less bended meet at one point. Within three-dimensional space, all connecting lines show same length (only here at two-dimensional view top down these lines appear of different lengths).

If now a strongly bended curve should become less bended, the connecting line of opposite side must become stronger bended. Point of intersection of all curves thus can be moved at central marked circle, while all outside (black) points are not involved.

These are decisive characteristics of all local movements within the aether: motion within an area is well possible, while the border of the area keeps stationary. All times, near to the centre of the area is much more motion than at outer parts of the area. It will never occur a rotating around, but only swinging movements at circled tracks are possible.

This animation shows the general process of all local movements within the aether. There is no circling around an axis, but central aetherpoints are only swinging parallel around the centre. That motion at the center is comparable with a 'wobble-disc' (resp. swinging sander), where e.g. the right border all times keeps right side. The central aetherpoints show relative strong swinging motions, which become smaller distance towards outside, until the resting aether at the border (thus the swinging is fading towards outside. These differences of movements are equalised by changing shape of the connecting curves (which here are only drawn by view top down).



Sea Waves Roundabout

The comparison of sea waves is to mention once more, like earlier discussed e.g. at picture 03.02.01. All outside resting points correspond to 'stationary waters', far below the water surface. From there, bended connecting lines guide upwards to the surface. Here, the whole water surface is concentrated within one point of intersection, i.e. these sea waves fictively are arranged around that centre.

The 'wave' of the water surface here is swinging around the central marked circle. The differing distances between calm area outside and central area in motion are equalised by the swinging of the connection-curves differently bended.

Nucleus and Balancing Area

An other characteristic criteria of local aether movements becomes obvious: there is a centre of motion (here marked by central circled surface), however there is much more motion demanded within far reaching surrounding area (like sea waves at the water surface represent only small a part of all involved waters in motion).

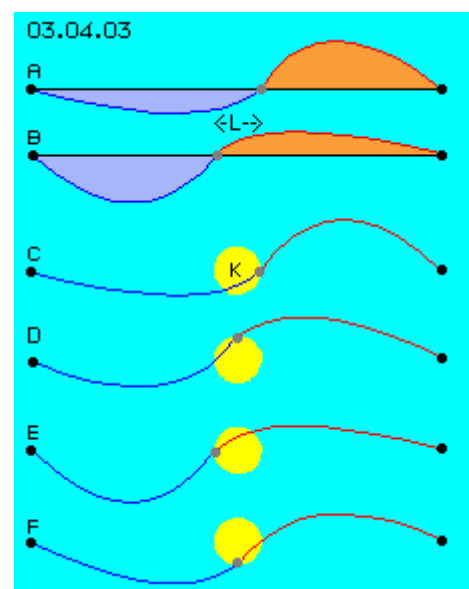
These balancing areas outward to the resting aether is much larger than the core. Here, the bending of connecting lines and the central nucleus of motion are extremely overdrawn in the graphs. In reality, the connecting curves are only minimum differing and the balancing area is wider than the core by many scales (e.g. like the diameters of the Sun in relation to whole Sun system).

Dislocation of Aetherpoints

At picture 03.04.03 the dislocation of bended connecting lines is shown once more. Here only one connecting line is drawn by view top down, i.e. without its bending into third dimension. The black points left and right side represent Free Ether (relative stationary), one point at the centre is watched during its motion.

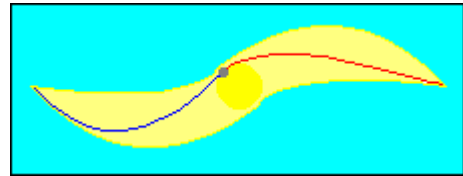
At A the connecting line left side is bended only little bit (thus is relative long stretched), the connecting line right side is bended stronger (thus is relative short). The observed point is shifted a little bit to right side.

At B both bendings have changed and the observed point is shifted to left side by the distance L. Thus a linear movement would occur. As every bending is possible only into two directions same time, this point won't move linear but at circled track (K). Four situations of this movement are shown at this picture at C to F. Following animation visualizes this movement process.



Also here it's obvious, not only the aetherpoints near to the centre are moving, but all points at the connecting curves are dislocated (and all neighbouring points round about, here not

marked). On the other hand it's obvious, the movements are symmetric to the centre (by view top down), however not symmetric to the straight line between opposite points of resting aether. The area of movement of this connecting line as a whole is marked by light yellow.



Additional or Essential

Within a medium of particles (e.g. gas, water - or within nothing), balancing areas like these would not be necessary. In common understanding, only the nucleus of many occurrences is assumed to be a material fact. Above this, the appearances were called 'long distance effects' or 'mutual interaction' or 'physical field' of different kind. These 'additional characteristics of material facts' are often neglected or not clear defined or even not registered (e.g. like 'para-physical aura').

Within the part-less aether however, the existence and behaviour of movements at areas outside of the nucleus are absolute necessary facts, not only additional abstract aspects but real (mechanical) motions. Within the gap-less coherent aether, these processes in wide surrounding areas all times are as essential like the movements within the narrow core of all motions.

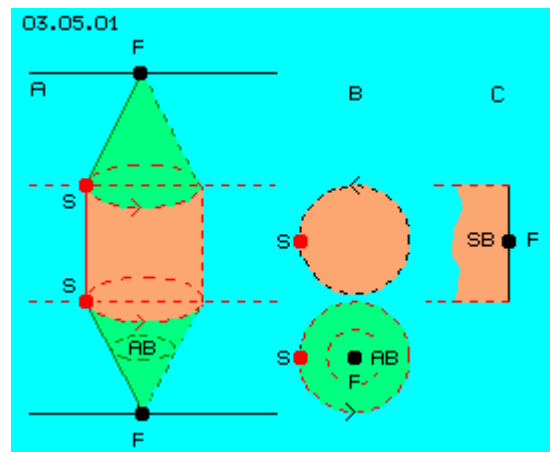
03.05. Circulating Wave

Swinging Disc

At previous chapter described how the aether behaves at the center of a local swinging disc. Also at earlier chapter e.g. at picture 03.03.02 were drawn several planes swinging relative to each other.

That situation here is drawn at picture 03.05.01 schematically once more. At A upside and down the layers of Free Ether (F) are marked, i.e. upside and downside of this level, the aether is moving only by narrow movements, so here is assumed to be (relative) stationary.

Between these levels a layer (resp. cylinder) is drawn, within which the aether is swinging at a circled track. The difference between null movement and that swinging motion (S) is possible, because within each balancing area (AB) the circled tracks become smaller, cone-like towards the resting Free Ether (F).



At this picture at B a cross-section (red) is shown. A swinging aetherpoint (S) of that middle layer moves at this circle. Below is shown a view top down onto the balancing area (green). The aetherpoints there are swinging at circles of each smaller radius.

The whole middle cylinder (red) thus is swinging relative vehemently. Within the gapless aether, all neighbours must synchronously swing analogue, also into all sideward directions, so an unlimited area of swinging movements (SB) would result. If however that motion should be locally limited, thus at its borders again should exist resting Free Ether (F). So round about any limiting border is demanded (like marked schematically at C).

Objective of this chapter now is, which kind of movement pattern the local aether movement must show, so that 'vortex' becomes embedded within the resting aether.

Tilt and Shift

At picture 03.05.02 is shown only the conus of downside balancing area. At A the observed aetherpoint (red) is located quite left at its circled track. A neighbouring aetherpoint (blue) of this swinging layer (S) is drawn left. Further neighbours schematically are marked by black horizontal connecting lines, also further down at the balancing area (AB) to the layer of Free Aether (F).

At B is shown the situation after swinging at a half circle. The observed red aetherpoint now is located quite right side, its blue neighbour still is some left. The green section of the balancing area now shows, all horizontal neighbours keep same position relative to each other. However, the connecting lines are shifted relative to each other, i.e. vertical neighbours take other positions relative to each other.

This 'rubbing' between bordering layers (here between vertical neighbouring aetherpoints) however is not possible within a gapless aether. So local aether movement can not work that kind. An alternative is shown at this picture at C.

All neighbours at connecting lines between Free Aether (F) and observed swinging aetherpoint (S) move at tracks, which at a whole represent a cone (marked by dotted lines). Now here the neighbours are marked right angled to the connecting line. The length of each line marks each diameter of swinging with top down each smaller size.

If all neighbours of that cone should keep positions unchanged relative to each other, these aetherpoints would tilt while moving at circled track, like here at D is marked after a half turn.

This pattern of movement thus is to compare with a tumbling spinning top - however aether don't rotate-around but only swings-around. The blue aetherpoint is left and keeps left side of observed red ether point all times.

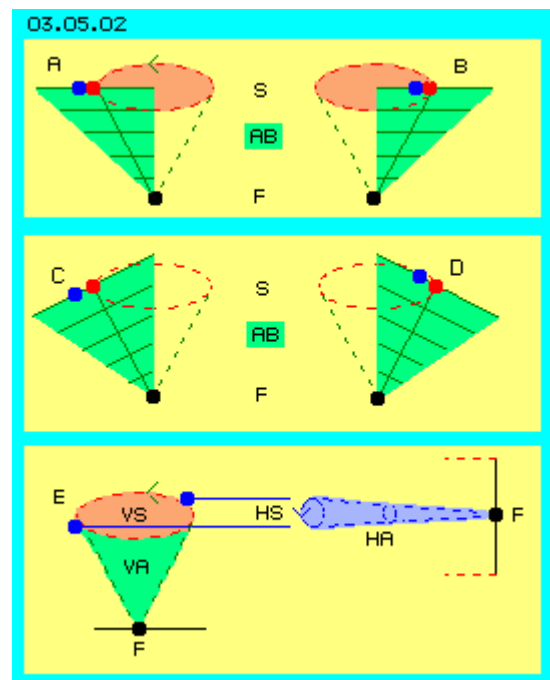
Local aether movements behave not exactly like this simple pattern of movements, however this consideration gives a decisive hint. As the blue neighbour moves at circled track and is tilting same time, that aetherpoint takes different levels: left side this point is positioned below and right side it is positioned above its red neighbour.

Lift and Lower

At this picture at E the difference of levels (relative to level of Free Ether) is pointed out. The blue aetherpoint is lifted and lowered while it's tumbling and tilting. Again, within the gapless aether this movement can not be linear, but can (and must) be done by continuous turning resp. swinging. Lift and sink thus is done during the swinging around a horizontal axis.

Besides the first swinging around the vertical axis (VS) with its vertical balancing area (VA) so now a second swinging around the horizontal axis (HS) occurs. This additional swinging now can become smaller within a horizontal balancing area (HA), again cone-like into sideward direction - reaching out to the Free Aether (F).

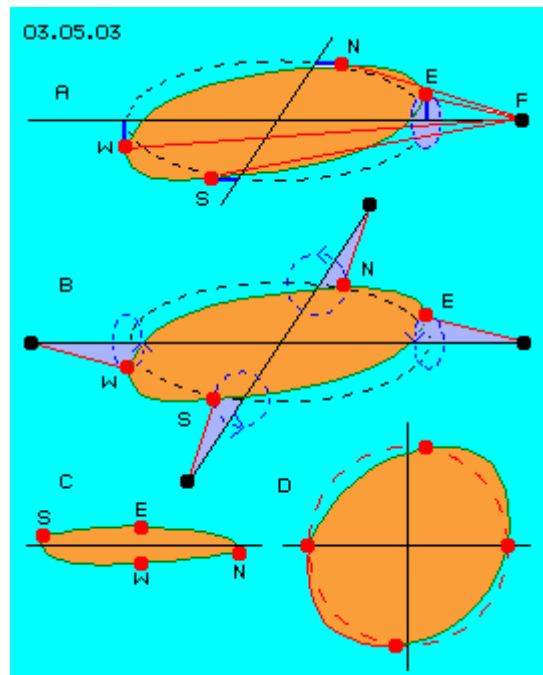
Finally by these simultaneous two swinging motions around two axis right angles to each other, a coarse motion at a centre becomes locally limited towards outer border resp.



neighbouring Free Aether. Thus again: at least two motions are given within the aether, at the universal aether movements like now here at local aether movement.

Uneven Track

At picture 03.05.03 this simultaneous swinging is shown. Coordinates are drawn for better orientation. The original swinging movement at horizontal plane is marked red. The swinging movement right angles to that first motion is marked blue. The Free Aether (F) is marked by black points. The observed moving aetherpoint is marked red. Diverse positions while the swinging movements are marked by east, south, west, north.



At A for example is shown, the aetherpoint at east (E) is positioned upside, at south (S) left side, at west (W) below and at north right side, each relative to the coordinates. So the layer of the original circled track (red) now is inclined to the equatorial plane.

At B is shown each connecting line between Free Aether and the swinging aetherpoint at its four positions. By blue triangles is marked, which position that point takes in relation to these coordinates at each situation.

Each swinging around an axis is marked by dotted circles, each direction is marked by arrows. By view from outside, all connecting lines swing counter clock-wise. If generally the left-turning is assumed to be prevailing within the universe, so the aether at borders of that local 'aether-vortex' would turn synchronously. Further down is discussed, how that 'impossible' embedding of simultaneous movements into the gapless aether really works.

Here however at first is to mention a further special fact: different lengths of track sections. If the aetherpoint starts at its position at east (E) and moves to position south (S), that point has to go a rather long distance from upside of east-axis towards left side of south-axis. From there to position below the west-axis, the distance is shorter. From west to north the distance again is longer, from north to east the distance again is some shorter. So the swinging around can not occur by constant speed or the track of that aetherpoint can not be a pure circle.

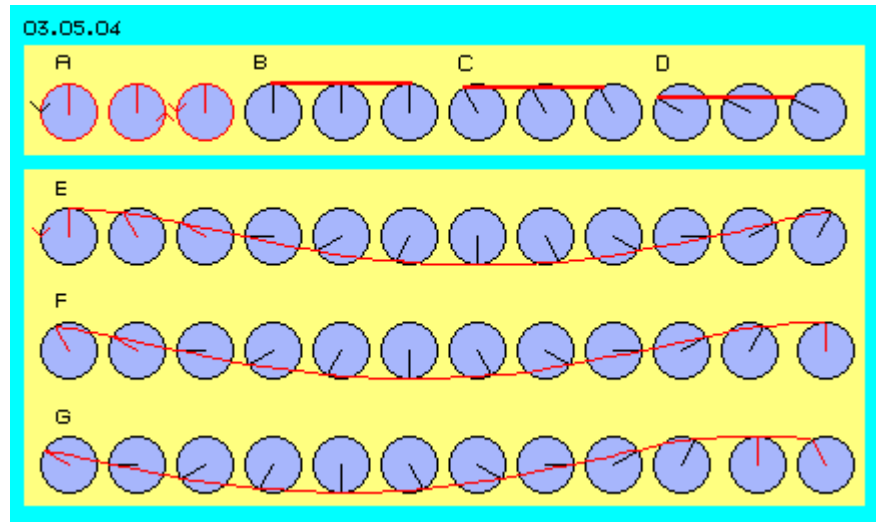
At C is shown a cross-sectional view through that 'movements-disc'. At east (E) the aetherpoint is upside of the axis, at west it's below, at south and north thus the aetherpoint can not be exact at the level of the axis. So the new track would show a shape like the border of hat, bended upward one side and bended downward opposite side.

At D schematically is shown, the aetherpoint could walk the long distances some inside and make some 'excursions' at section of short distances. The track thus would be no pure ellipse, but a deformed circle with depressions and extensions. The real tracks of local aether movements will be compromise in shape of diverse spiral track sections.

Wheel or Wave

At previous pictures, this swinging around a horizontal axis was symbolized by little blue wheels. It was assumed, the wheels would turn left (by view from outside to the centre) and would turn at all four directions resp. towards all sides by likely sense. Involved problems schematically are shown at picture 03.05.04.

At A are drawn three left-turning wheels, where between the wheels a counter-turning movements exists (see arrows). So there would come up rubbing within the aether. This kind of neighbouring turnings can not exist in gapless aether.

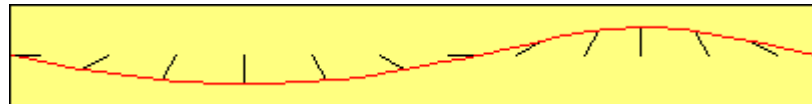


Within the aether continuum can only exist relative

synchronous swinging movement. By example of some wheels this possibility is demonstrated at B, C and D. Three wheels are connected with a rod (e.g. like drive-wheels of steam engine). All three wheels turn same sense, here e.g. from 12- via 11- to 10-o'clock-position, so all points at connecting line swing parallel to each other.

At this picture at E are drawn twelve wheels, instead of previous stable rod now combined by a bended connecting line (of neighbouring ether points). This connecting curve is 'mounted' at each wheel at next position (here each hour of clock).

All wheels now can turn synchronously - and the connecting line will appear like a wave running from right to left, visualized by that little animation. Above this, here once more is demonstrated the essential difference between turning-around and swinging movement: turning around an axis is common within the material world, swinging at circled track (resp. at overlaid circles of different axis and radius) is the exclusive movement possibility within aether by itself.



This animation also shows clearly, towards outside

come up impressions or occurrences or effects, while their real movement pattern is quite other kind: here one can see absolutely clear a wave running from right to left - however one must watch exactly to recognize, twelve 'clock-hands' synchronously are turning, each at its only small area. So the impression of far-reaching movement really results of aetherpoint motions at only small radius, all in likely turning sense - however 'phase-shifted'.

Overlaid Turnings

Upside at section 'Uneven Tracks' of picture 03.05.03 was mentioned, the sections of track have different lengths. From east to south and from west to north the distances are longer than from south to west and from north to east. At previous twelve 'wheels' resp. at the wave of previous animation with its bended connecting curve, this problem is not quite obvious, nevertheless these differences exist.

At picture 03.05.06 again are drawn these 'wheels' (blue) and a stable connection (red). The connecting line A between 12- and 11- o'clock-positions is much longer than e.g. the connecting line B between 9- and 8-o'clock-positions. Within the gapless aether however, such movement processes are not possible.

At earlier chapter overlays the processes of sea waves were discussed and e.g. at picture 03.02.03 (at B, C and D) were shown tracks resulting of two overlaid circled movements.

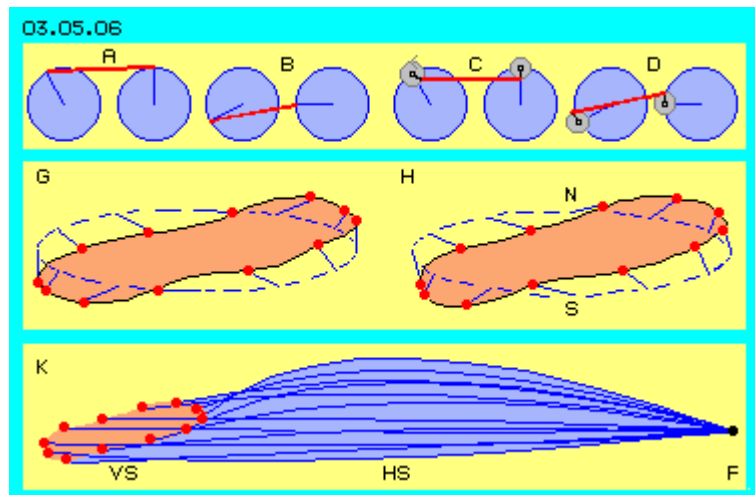
Here at picture 03.05.06 at C and D e.g. around previous 'fixing-points at one wheel' occurs a second turning (grey) at relative short radius. This second turning point thus wanders at circled track within space and around its wandering fulcrum exists a second synchronous turning (and all turnings occur by constant speed). Connecting lines with sections of continuously same length are achieved by overlays like this, for example shown at C and D.

Roundabout at Roller Coaster

Previous twelve wheels of picture 03.05.04 resp. 'clock-hands' of previous animation, in reality are arranged around the centre of a swinging plane. Previous wave runs around this motion centre, as an appearance of swinging motion around the horizontal axis (HS) and as necessary supplement of the original swinging around vertical axis (VS).

Instead of previous two-dimensional drawings, now here at picture 03.05.06 at G previous 'clock-hands' (blue) are arranged at circle (blue dotted). Resulting is a circulating wave (black) with its uneven track resp. 'inclined' disc (red).

At H the result of previous overlay schematically is shown. The 'clocks' stay back phase-wise, so e.g. at south (S) the 9-o'clock-position is not quite achieved and at north the 3-o'clock-position is not yet achieved (by this turnings counter-clock-wise). At phases between, the clock is 'running faster', so as a whole all sections are of likely length.



An other possibility for balancing the differences of connecting lines is also drawn here. The 'clock-hands' not at all must stand right angled to the equatorial plane, but could be inclined towards inside / outside. The upper border of this band around the centre here e.g. is tilt some towards left. Even during the circulation, the tilting angles could change (and will in reality change continuously and will in reality show much larger angles than drawn here).

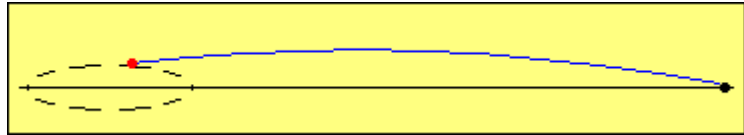
Swinging Connecting Line

At this picture at K, once more an inclined uneven track is drawn. At the centre of this local movement (red) can exist no pure circled track and also no pure elliptic track. There are at least one swinging around the vertical axis (VS) and (phase-shifted) a second swinging motions around (many) horizontal axis (HS) overlaying.

The connecting lines (blue) between the observed aetherpoint at the centre and one point (black) of Free Aether (F) can be no straight stable line (like assumed simply at previous cone-like motions). Most similar movements do the aetherpoints neighbouring at a spiral bended connecting lines.

At this picture at K a bundle of diverse shapes of connecting line are drawn. While one turn of the central aetherpoint at an inclined track, the connecting line must change these shapes. All points at this connecting line do similar movements, thus not only are swinging around their horizontal axis, but are moving same time to left resp. right. So not only within the centre exists motion, but roundabout are heavy motions, all times into all three dimensions. Towards the surrounding Free Aether however, the distances of movements become shorter, i.e. the swinging is faded towards outward 'border'.

This simple animation visualises the steady changed winding of the connecting line. The observed aetherpoint (red) in phases moves upside or downside of the



equatorial plane. Its distance to the Free Aether becomes shorter and longer, equalized by the bending and winding of the connecting line (like shown in details next chapter). However, the movement at the centre is overdrawn extremely. In the reality, the balancing area towards the Free Aether is extreme large in relation to the small motions within the centre, by millions and billions.

Symmetry and Asymmetry

One can see, there is no complete symmetry. Symmetric is only the connecting line from one point of Free Aether to the opposite at the drawn (X-) axis.

A connecting line cross to X-axis (thus alongside Z-axis) shows other shape and changes by other curves. By this view, e.g. most short and most long distances to the observed aetherpoint are not at its position most upside resp. downside of axial plane, but at its position aside of the Z-axis.

Within the plane of this axis-cross thus exists a horizontal balancing area from the centre of movements outwards to the Free Aether. Within this area however, balancing movements are not of unique shape. Only exactly opposite, movements are mirrored analogue. Diagonal to previous X- and Z-axis exists smooth transition of both movement's pattern.

The track at the centre is inclined to the equatorial plane of this axis-cross, resulting the asymmetric bundle of connecting lines of previous picture at K. Naturally there are also connecting lines by view direct onto that plane, thus from a point of Free Aether some above of the previous animation. This connecting line again will show other shape and some other behaviour.

These fictive connecting lines are theoretically given from all Free Aether around this local motion centre, thus from any direction e.g. of half-sphere above this axis-cross. At earlier pictures (e.g. at both first pictures of this chapter) were drawn only simple straight connecting lines of cone-like vertical balancing area. Similar movements however also there are not at straight lines, but the neighbouring points at spiral curves do likely movements.

03.06. Tumbling Axis

Swinging around vertical and horizontal Axis

At previous chapter 'Swinging Disc' was described, the local aether movement in principle is swinging around at its equatorial plane. At previous chapter 'Circulating Wave' now was described, not only a swinging at the equatorial plane exists but same time also circling movements around horizontal axis are necessary. Picture 03.06.01 schematically shows that fact once more.

At this picture left side at A is drawn the observed aetherpoint (S) and the track of its swinging (VS) around the vertical axis. Below is marked a point of (relative resting) Free Aether (F). Between both points, within the cone-shaped balancing area (VA), the swinging around the vertical axis is fading.

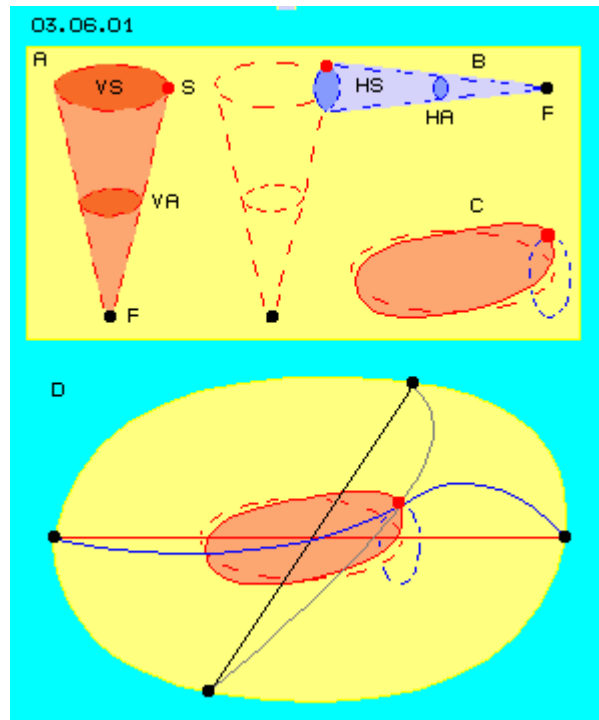
At this picture right side at B is drawn the swinging motion around a horizontal axis (HS), also with its balancing area (HA) towards a point of Free Aether (F) right side at the border of the equatorial plane.

This picture at C schematically shows the addition of both movements resulting a track some inclined versus the equatorial plane.

At this picture at D are drawn four connecting lines to four points of Free Aether (black). The observed aetherpoint (red) is positioned at its track right side up. The distances from this point to the Free Aether are different (here extremely overdrawn), resulting different bending of the connecting lines.

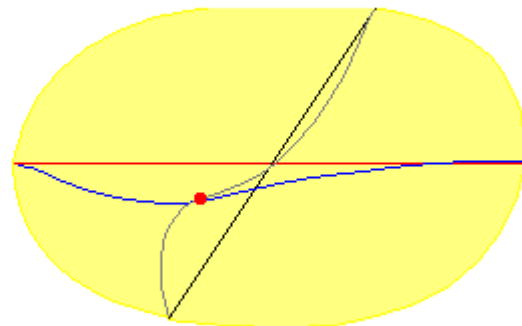
Left/right, up/down, front/back

At earlier pictures and animations, the movement at an equatorial plane was drawn left-turning (by view top down). Now it's assumed, the movement around a horizontal axis is left-turning. So resulting of was a circulating wave, running clock-wise around the centre. Thus at following pictures and animations the movement at equatorial plane is drawn right-turning (by view top down).



Within universe exists no left/right, up/down or front/back. This problem is discussed by later chapter 'Movement 'Directions' and also the reasons, why left-turning is the prevailing direction.

This animation demonstrates approximately, how the connecting lines are bended and twisted according to the central swinging motion. In the direction of each smallest distance towards the Free Aether, most wide bending is demanded, while at each opposite side the bending is much more flat.



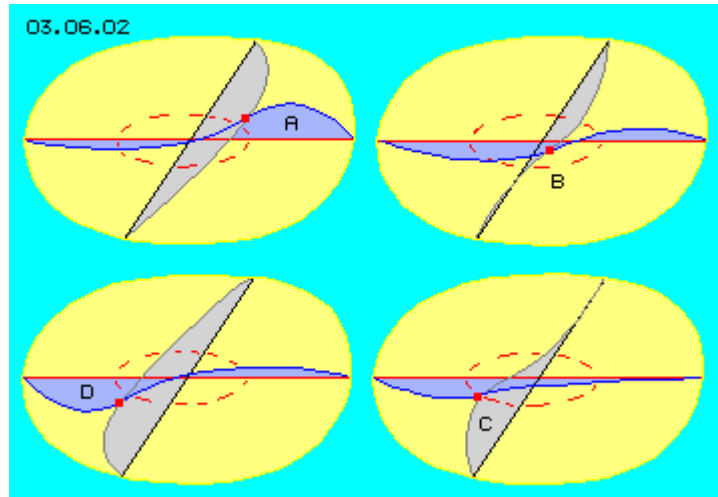
Right side, the observed point is upside of the equatorial plane and also the bow of the connecting line is bended upwards. Afterward, the red point wanders towards the front side, coming to the equatorial level. There, the connecting line shows a strong bending to left side, thus into turning sense of the circulating wave. Some later at left side, this bow moves downward. If the red point is at the back of the picture, the bow of the connecting line again shows forward into turning sense (thus there to right side).

So these connecting lines at equatorial plane not at all represent simple cones of balancing areas, but are complex swinging movements into different directions by different shapes, thus not uniform.

These 'wheels' of a circulating wave (of previous chapter) thus are not positioned at same level and the connecting lines do not swing around the horizontal axis exactly. These connecting lines preferably swing upside of the X-axis (here right side) resp. below (here left side). Into directions cross to that axis, the connecting lines swing prevailing ahead (in turning sense) of each Z-axis.

The vertical balancing area, up to now was simply drawn as a cone with straight connecting lines. Now the objective of this chapter is description more detailed of these movements along the vertical axis.

At picture 03.06.02 are shown four still frames of previous animation. At A, the observed aetherpoint (red) is positioned upside of the X-axis and the connecting line there (marked blue) also shows a high upward bow.

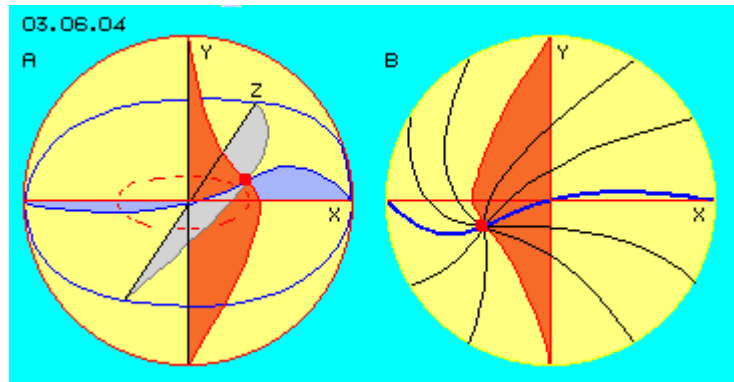


At B and C this aetherpoint swings to left side and the strong bow of the connecting line is shifted ahead-left-side. At D, the aetherpoint is below the X-axis and the connecting line is strongly bended also downwards.

Transport of Material

The blue high 'mountain' at A right side becomes a flat hill at D. The original small blue hollow left side at A becomes a deep valley at D. Synchronously to the circulating wave (of previous chapter) thus some 'material' must be shifted via the 'poles' towards left respective opposite to right side. Naturally this motion is not done by linear movement to and fro, but by a swinging motion around the vertical axis.

At picture 03.06.04 at A once more previous starting situation is drawn, thus with the observed aetherpoint right-upside X-axis. The connecting line along this axis is marked blue. Cross to this axis is drawn the Z-axis and the corresponding connecting line is drawn grey.



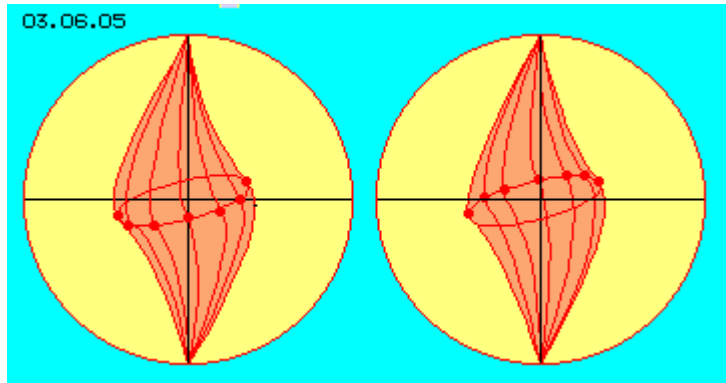
Now also are drawn the vertical Y-axis and the connecting line (red) between 'north- and south-poles'. If momentarily the aether volume is at the 'blue hill', material had to be lifted from downside up, thus the red connecting line downside shows a bow to right side. Opposite, upside of the blue mountain, some aether volume had to escape, thus the upper part of the red connecting line is dented resp. bended to left side.

At this picture at B, the observed aetherpoint has moved to left side. There is drawn the blue connecting line (now with valley left side) and also the red connecting line (of the Y-axis). This vertical connecting line at its upper part now is bended left side towards the deep blue valley, while the lower part of red connecting line is dented to right side.

Naturally, connecting lines exist from all points of Free Aether to the observed point. Here are drawn (black) only some lines at this X-Y-plane between the blue and red connecting lines. So at this local 'transport of materials' is involved the total surrounding area, practically a sphere-shaped space of local aether movement (of which here is drawn only a cross sectional view onto X-Y-plane).

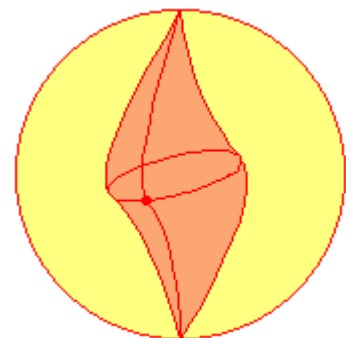
Rolling around vertical Axis

At picture 03.06.05 the space of the local aether movement is drawn as a yellow sphere by diagonal view onto the central inclined plane of the swinging track. Pointed out (red) is the movement only around the vertical axis (however extremely overdrawn).



At this picture left side are drawn positions of the observed aetherpoint during its motion at the front side. At this picture right side are drawn its positions during its motion at the background. There are drawn each bended connecting lines.

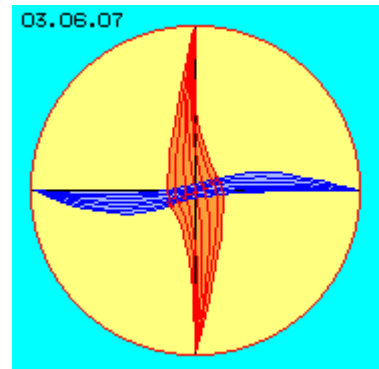
At this animation is visualized, how this observed connecting line changes its shape during its rolling around. This line keeps constant length (appearing here by different lengths only because much over-drawn and the perspective). While swinging around the vertical axis, the connecting line however shows steady changes of bending and winding.



Instead of earlier linear connecting lines within cone-shaped balancing area, thus now appear tumbling motions around the vertical axis. Only by these complex movements, the whole volume of aether is shifted that kind, previous described central movement comes true, so locally limited Bounded Aether can exist.

Potential-Vortex-Cloud

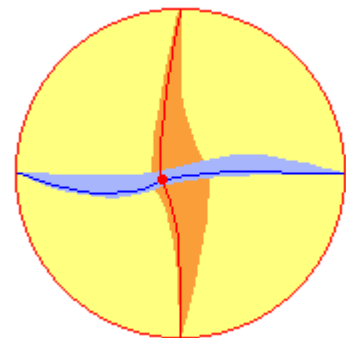
At picture 03.06.07 shows the X-Y-plane once more, now by view direct onto the Z-axis. The central movement of the observed aetherpoint now is drawn some smaller (really however, it is smaller by millions in relation to circumference of whole local aether movement unit).



Again here are drawn connecting lines alongside X- and Y-axis with their different shapes and positions. The corresponding animation visualizes the movement process of both lines.

By the considerations here and at previous chapter, the essential principle of local aether movement results the following points of view.

At the centre exist swinging movements at relative large tracks. This track results of at least two overlaying circled motions right angled to each other. The track thus is inclined versus the equatorial plane. The resulting movements are not symmetric and uniform round about the centre. In general, a wave circulates around the centre at an equatorial plane, resulting of phase-shifted circled motions. However also the fulcrums of these circles are not everywhere at same level and the radius vary while rotation (resp. are a mixture of overlaying circled motions by itself).



Again an other shape shows the twisting motion around the vertical axis, in order to shift resp. equalize the aether volumes of mountains and valleys of the wave. Between movements at horizontal plane and movements around the vertical axis, movement pattern merge smoothly one into another.

There is motion not only at the centre but also within a wide balancing area around, practically within a large sphere reaching out to the (relative resting) Free Aether. Near the centre, the movements are running at relative stretched tracks, while the movements occur at each smaller radius towards the periphery. As a whole, the aether volume in motion is extremely larger than the volume part of the centre.

As I called Universal Aethermovement running at 'Spiral-Cluster-Tracks', now that Local Aethermovement analogue is called a 'Potential-Vortex-Cloud'. Opposite to a rigid vortex (with the maximum speed at its periphery e.g. like a wheel), a potential-vortex shows most intensive motion at or nearby the centre, e.g. like whirlwind are moving.

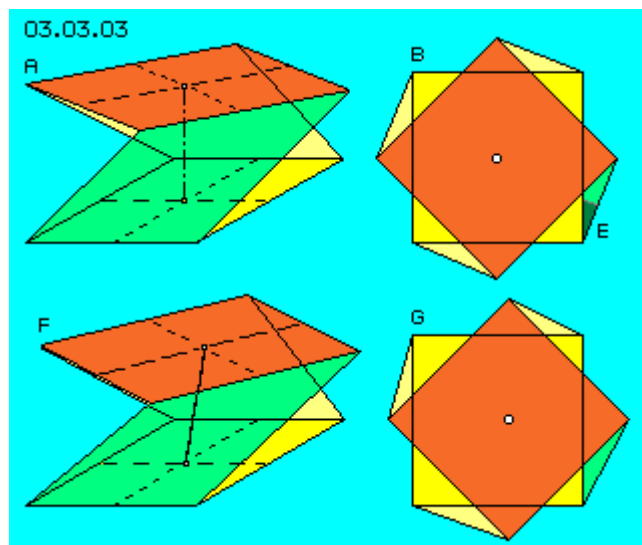
Potential vortices like these are rather flat (e.g. tornados) or are flowing vortices (e.g. like at the outlet of bath tub). Local aether movements however are round shaped, so these vortices are spheres. As inside exist most different 'flows', I prefer the term of 'cloud' (even not comparable in total). So here the term 'Potential-Vortex-Cloud' is used equivalent to Local Aethermovement.

03.07. Bending and Winding

Twisted Cube

At earlier chapter 'Volumes and Shapes' was discussed the general possibility of local aether movement by the example of a cube. The lower and upper faces of the cube were shifted by 45 degree, the edges between show diagonal, also by some 45 degrees.

A motion can only occur, if the upper and lower faces are twisted more or less, while same time inevitably all surfaces become differently inclined. The central axis though several of these cubes becomes bended.



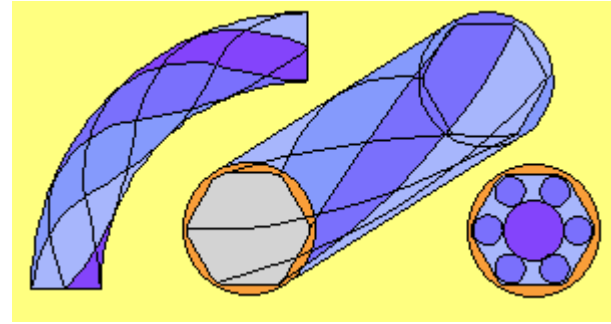
This possibility of movements was demonstrated by picture 03.03.03. It's reported the aether should be 'as hard as steel' (in order to transport light). If this cube would be build by steel-rods, this grid would allow corresponding movements (by minimum flexibility within joints). In general however, this first idea of local movements is too 'stiff'.

Potential-Twist-Pipe

At the other hand, the aether was often compared with a fluids and flows within. I made intensive researches concerning these problems at my 'Fluid-Technology', developing e.g. a special shape of pipes. Following picture demonstrates the essential aspects of this invention.

The common shape of flux within pipes represents a self-blocking system. Especially large losses of throughput are based on commonly used bows of pipes. The inner curve is shorter than outer curve, so inevitably comes up turbulent flux, i.e. movement ahead is reduced decisively.

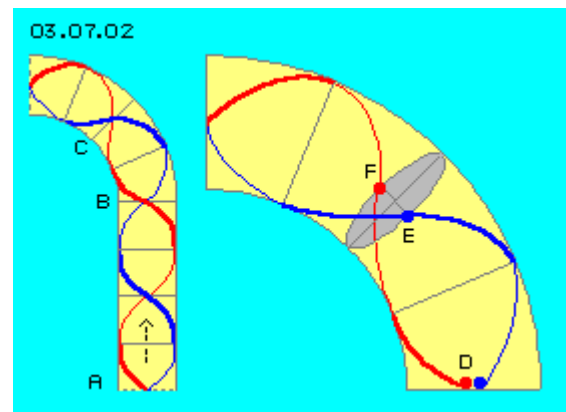
These losses by resistance are to avoid only by twisted flow within winded pipes. Then the sections of movements occur at spiral tracks of likely lengths, even within bows (by one rotation within the bow).



An optimum flow e.g. is achieved by a six-edge pipes with rounded edges and the whole pipe is twisted around its longitudinal axis. Within the edges come up cylindrical side-flows, at which the central flow rolls forward like at 'ball bearings'. The main stream has no direct contact to the wall, thus practically without any friction is moving forward - also through the bows (resp. just there comes up an optimum shape of potential-twist-flow). I called this invention 'Potential-Twist-Pipes'.

Tilting Water Surface

At picture 03.07.02 the twisted spiral tracks (red and blue) are shown once more. Cross-lines mark each 90 degree of turning around the longitudinal axis. The sections of tracks at front side are drawn thick, the sections at the background are drawn by thin curves. Tracks like these resp. all molecules moving these ways, in general are called 'flow-threads', thus comparable to the term 'connecting line' used here.



At B these water molecules start moving into the left-turning bow. The red curve at first runs at the bow's inner side, thus is some shorter than the corresponding section of the blue curve at outer side of the bow. At second part of the bow, the relations are vice versa, so at the end of the bow both water molecules did run ways of likely length.

At this picture at right side, this bow is drawn once more by larger scale. The water molecules at straight part of the pipe move by same speed. So it's assumed, the molecules at D want to go on moving by constant speed. This means however, the blue water molecule at its longer section won't come ahead (to E) as far than the red molecule at its much shorter track (to F).

At the start of the bow, the 'water surface' between both molecules is cross to the pipe (right angles to longitudinal axis). At the middle of the bow however, this water surface (marked grey) is tilted versus the longitudinal axis. So during the movement through the bow, the water surface 'slops' to and fro even by this optimum shape of flux. This motion could be avoided (and thus could be achieved real steady motions) only if the bow is not bended only towards one side but would show a spiral shape into two directions same time.

No Comparison

The comparison of water and its flux with the aether and its possibilities of movements does not fit by diverse points. Water is material occurrence and exists by parts. Within 'flux-threads', the water molecules are neighbored and do likely or analogue motions. Between water molecules is 'nothing' (by common understanding), so the whole flux-threads can shift alongside each other without problems. So previous water surface can tilt, some water molecules can run ahead and some molecules stay simply behind.

Here however, the aether is assumed to be gapless coherent unit, without any space between parts, so the aetherpoints stick to their neighbours all times. Within the aether, one

point can not rotate around an axis, like the water molecules here are 'dancing' around the longitudinal axis of the pipe. The aetherpoints keep same side of neighbours all times, they can only swing parallel to each other, by more or less speeds.

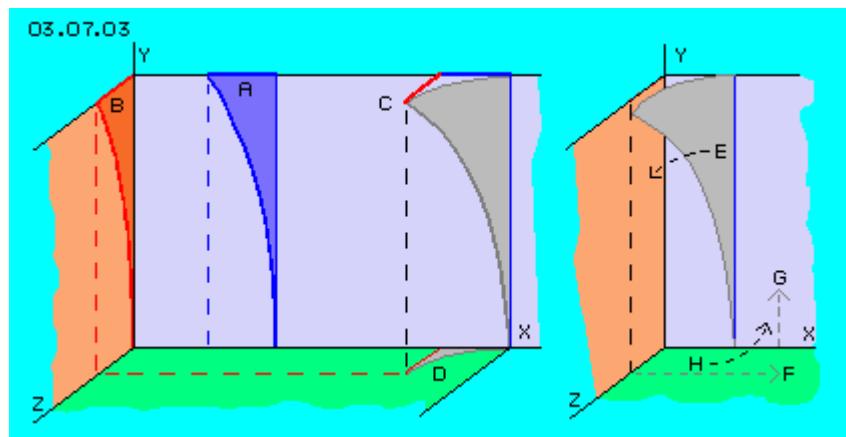
So this comparison could only point out, each bending - also of fluid particles - synchronously demands tilting right angled: here the longitudinal axis is bended to left side and resulting of is a tilting backside-up and frontside-down of the water surface. So this inevitable synchronization of movements into two directions right angled to each other, not only exists at previous 'steel-grid' construction (of that twisted cube), but also within liquids and gases.

A grave difference however is, material parts can wander through space long distances, e.g. water can flow through previous pipe or within rivers for thousands of kilometres or air can run around whole globe. The aether however is 'locally resting' resp. is swinging only at relative limited areas, the whole Free Aether only at quant-small Universal Aethermovement, the Bounded Aether only within locally limited 'Potential-Vortex-Clouds'. So local aether movements are not to compare with flowing water through previous pipe.

Right Angles

At picture 03.07.03 once more these coupled motions are demonstrated schematically. The space is marked by X-, Y- and Z-coordinates. An originally straight connecting line is bended to left side (marked blue) at A.

By previous considerations, that 'tube' is to bend only if same time it's bended right angles to this direction. This second bending within the Z-plane here at B shows forwards, thus right angled to first bending.



At C is shown the addition of both bends. As the bending increases from bottom to top, a spiral line results as a curve bended same time into the third dimension, as marked at D.

This three-dimensional bending (from original vertical straight connecting line to the grey 3D-curve is drawn once more at this picture at right side. The bending results a shorter distance between the X-axis and the upper end of the curve. The process of this bending thus is result of synchronous movement towards left-ahead-down, like marked at E. However the bending as a side affect no results an other change: at the inner side of the curve now is 'too much aether', while at the outer side of the curve is 'too less aether'.

Thus in principle, same time the aether must move off the Z-axis towards right side (F) and some aether has to move from X-axis up (G). Again both movements are done synchronously at a spiral track towards right-back-upwards, as marked at H.

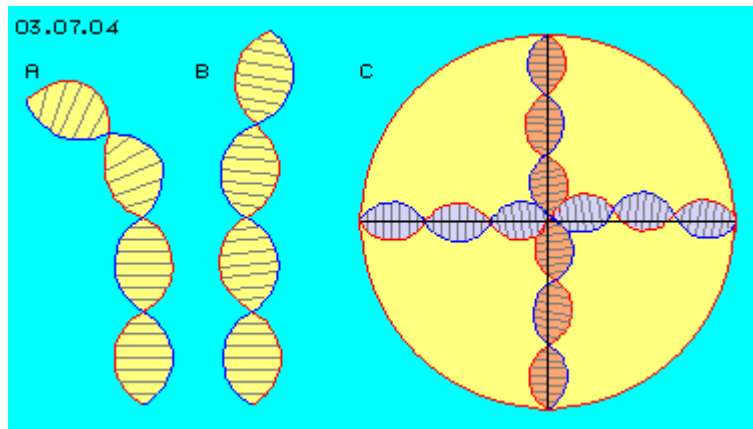
Within the gapless aether a spiral first movement (E) thus can only occur, if again by right angles a second balancing spiral movement (H) occurs same time. This necessity of balancing movements, e.g. at previous chapter was recognized and discussed as swinging movement around the vertical axis.

No single aetherpoint can move without synchronous motion of other aetherpoints, at the one hand by analogue motions of direct neighbours, at the other hand by balancing movements

of neighbours rather far, at any case at spiral tracks, at any case by motions right angled to each other. No single aetherpoint of these Potential-Vortex-Clouds is to stop, without all points of total motion system being involved.

Double-Helix

Long times after I had developed the idea of the Spiral-Cluster-Tracks of the Universal Aether-movement, I recognized the striking likeness to the cluster structure of DNA. Previous spiral tracks of both observed water molecules with their twisted motions now remember at the winded band of DNA.



At picture 03.07.04 at A these spiral tracks are drawn once more, here now without the pipe, but with cross-lines between both curves. This double-helix practically represents a standing picture of the fluid-flow or analogue it represents the connecting lines between aetherpoints.

At this picture at B is shown e.g. how that 'elastic tube' could change its shape. As mentioned above, the distances between starting- and end-points varies depending on the bends. As also mentioned above, each bending can occur only into two directions same time. Lastly it becomes obvious, near 'nodes' the areas become more narrow or wide, thus previous balancing motions are demanded in addition.

At the considerations of previous chapters the connecting lines were simply drawn as straight lines or simply bended curves. Naturally within the aether are to observe also the neighbours straight line. However, only the neighbours of bended lines do similar motions.

At this picture at C, as an example is drawn a Potential-Vortex-Cloud (yellow marked sphere) with connecting lines in shape of double helix. The central aetherpoint again is some upward-right from the coordinate zero-point. The connecting line to right side thus shows a 'hill' while left side shows some depression. Also corresponding to previous chapter, here is drawn a vertical 'tumbling axis' with its balancing swinging motions.

Loops and Eyes

This picture won't claim, the movements within a Potential-Vortex-Clouds will run by the double helix pattern. This picture however well visualizes, the swinging of connecting lines not at all will occur at only simple spiral curves but well can show overlays of diverse circled motions.

At earlier chapter 'Overlays' was mentioned e.g. by picture 03.02.03 which variety of movement pattern can results from the overlaying of only two circled motions, only by varying turning speeds or turning directions and radius.

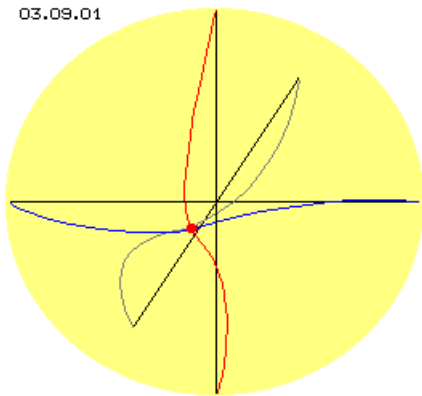
So the connecting lines from Free Aether to the centre probably won't take most short way but will build loops or even 'eyes' (e.g. like at rope turned unsteady or e.g. one can see at 'trunk' of tornados resp. water vortices). It's also quite sure, the connecting lines from the centre to different directions of the periphery are rather different resp. neighbouring aetherpoints at comparable positions within the Potential-Vortex-Cloud must not and will not behave same kind.

Common to all Local Aethermovements is only that principle of movements within Potential-Vortex-Clouds: at the centre exists most intensive swinging motion, towards outwards the motions become weakened. All movements occur synchronously into three dimensions same time. 'Astronomic' large balancing areas are demanded (up to the relation of one to millions). Within this general movement pattern no total symmetry exists, opposite each Potential-Vortex-Cloud will be really an individual.

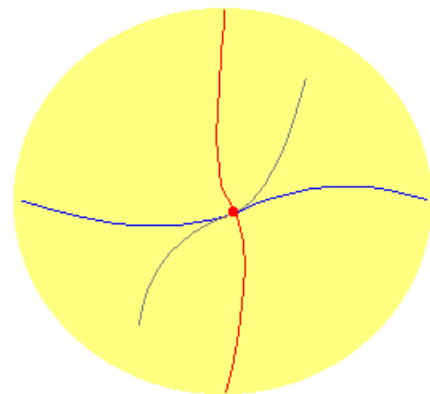
03.09. Movement Drive

Variable Pattern of Motions

At previous chapters were described movements within Potential-Vortex-Clouds. At picture 03.09.01 this 'cloud' is marked yellow and three axes of the coordinate system are marked black. There are drawn connecting lines (blue, red, grey) between an aetherpoint near the centre and six 'ends' of these axes. A simple animation visualizes the swinging motion of the aetherpoint and connecting lines.



These movements are characterized by a 'vertical tumbling axis' between two poles. A 'wave' seemingly is running around at the equatorial plane, which really results of phase-shifted circled movements around 'the horizontal' axis, however with differing characteristics. At the diagonal directions (between vertical axis and horizontal plane) the pattern of swinging movements are merging from one into the other shape (here not drawn).

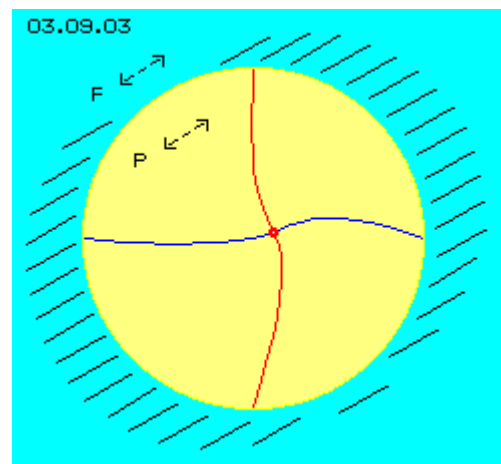


Towards outside the Potential-Vortex-Cloud not at all looks like a perfect symmetric unit, but shows different pattern of motions into any direction. Even into same direction, the shape of motions is changing on and on. Generally valid only is, all movements occur into three directions same time.

This motion unit is embedded within the general swinging of the Universal Aethermotion. At the 'border' of the potential vortex cloud both momentary motions meet. For short moments, both motions can shown into likely or into opposite directions.

Trembling throughout

At picture 03.09.03 schematically is shown a Potential-Vortex-Cloud (P) and its internal movements are symbolized by two connecting lines. Around this cloud is Free Aether (F). Instead of its most complex pattern of movements, here simply is assumed the Free Aether is only moving diagonal to and fro.



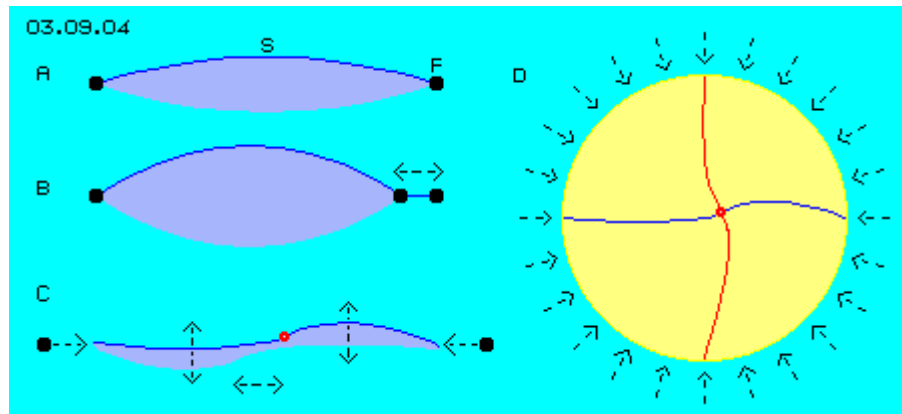
At earlier chapters I used the comparison (fitting only by parts), the Bounded Ether relates to Free Aether like ice to water. Transferred to the situation here it's obvious, that 'ice/cloud' naturally does same movements in general like all 'water/ether' does. So at first, that Potential-Vortex-Cloud trembles within the space (resp. relative to fictive stationary coordinate system) like all aether around same kind.

These individual swinging motions within the Potential-Vortex-Cloud thus occurs within universal co-swinging. Relative to quant-small universal trembling, the relative wide-reaching swinging of Potential-Vortex-Clouds is 'strange' indeed. At this chapter now is to check, how the transition of that small-scale to large-scale motions works. Above this it's to check why these local movement pattern can exist opposite to the universal movement pattern at all.

Movement Pressure

At picture 03.09.04 at A schematically is shown a connecting line (S, blue) with a simple swinging motion inclusive its area of movement (light blue). Free Aether (F) at both ends of that 'violin-string' swings comparably minimum distances, so here marked as a (nearby) resting aetherpoint (black).

If the swinging of the connecting line at that very moment occurs into a direction corresponding to the momentary motion of Free Aether, a synchronous swinging for that short moment is possible. As soon however the motion of the connecting line is



different to the Free Aether motion (or even opposite to), resistance comes up. The Bounded Aether can not carry out that motion, only some further inside of previous given 'border' this motion is possible. Outside of that border, the 'whole universe' moves at its Spiral-Cluster-Track, i.e. effects of this actual contrary motions can only occur inside the Potential-Vortex-Cloud.

By comparison of previous violin-string would result the situation marked at B: fixing point between string and support is shifted a little bit towards the bulge (here towards left) - with known consequence of 'higher tone'. If however the momentary swinging motion of the Potential-Vortex-Cloud again runs conform to the universal movement, this limitation disappears. So the fixing point of the string is shifting to and fro.

At this picture at C, previous effect is transferred at a bended and winding connecting line (blue). The available area for swinging motions periodically is shortened from both ends. If the connecting line has only short distance, its spiral shape must be adapted. The amplitudes of the swinging internal of the Potential-Vortex-Cloud thus become larger, there comes up stronger amplifying of movements at outer areas and also of central swinging motions (marked by double arrows).

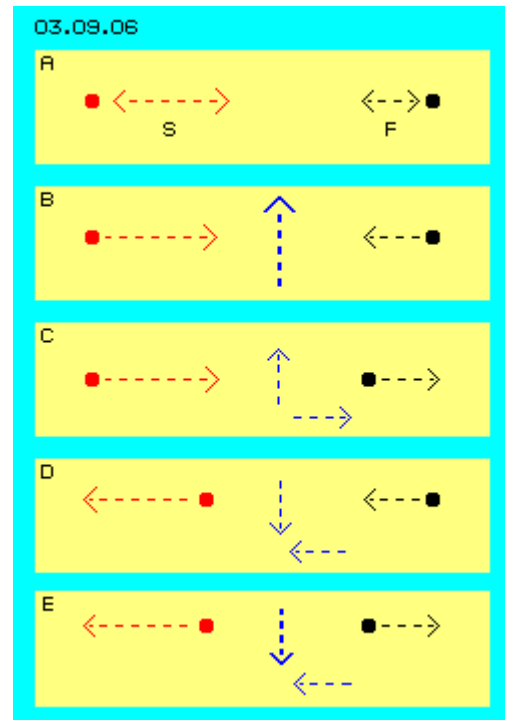
At this picture at D, the complete cloud schematically is shown. This 'pressure' periodically is given from all sides at the sphere. From different directions and at different times, The Free Aether resists versus the momentary motion within the Potential-Vortex-Cloud, i.e. only further inside the necessary balancing movements can occur. So the surrounding 'massage' of the Free Aether continuously is driving and pushing the internal movement processes.

It's an open question (at least at the moment), why and how a Potential-Vortex-Cloud came up first time. However its further existence is well to explain. Nevertheless its existence is not save for all times resp. can be stable only by certain conditions.

Effect and Repercussion

At first however once more the mutual interactions between a Potential-Vortex-Cloud and the Free Aether are discussed. At picture 03.09.06 at A are marked a swinging aetherpoint (S, red) of a connecting line and a point of Free Aether (F, black). Simplifying is assumed, both are moving only horizontal to and fro. Different long ways are marked by different long arrows. Motions at the very moment can be into likely direction or into contrary directions. Four situations in principle are possible and shown at rows B to E. The resulting effects are marked by blue arrows between both points.

At B the red point resp. its connecting line momentary moves to right side and the point of Free Aether moves to left side. At that conflicting situation the aether 'suffers stress'. The red point wants to go right side, however is hindered, thus the connecting line has to swerve out, here marked by the blue upward directed arrow. At this situation, The Free Aether works as a motor reinforcing the amplitudes of connecting lines.



At C the red point moves to right side, now also the Free Aether momentary moves into likely direction. Also here comes up 'stress', because the connecting line wants to move further to right side than Free Aether allows. Also here the connecting line further inside must avoid the conflict by swerving out (marked by blue arrow showing upwards).

The Potential-Vortex-Cloud at this moment affects a thrust towards right side onto the Free Aether located there, into its momentary direction. Thus earlier delay of the Free Aether motion (see following situations) is compensated. At the other hand, the Free Aether indeed could take gradually the characteristic of the movement pattern of the connecting line, as this pressure towards right side in addition with the upward component results a motion more stretched (diagonal to both arrows, here right side up).

At D now the connecting line and the Free Aether are both moving towards left side, however different long ways. The Potential-Vortex-Cloud 'affects a pulling force' onto the Free Aether. Either the curve of the connecting line becomes flatten (blue arrow downwards) or the previous adaption of Free Aether motion (of situation C) now is compensated resp. enforced once more, as this point again swings at a track more stretched into direction of both blue arrows (here diagonal down left side).

At E both movements are contrary. The Potential-Vortex-Cloud still affects previous 'pulling force', so now the straightening of the connecting line is inevitable (marked by thick arrow downward). This situation again results more intensive amplitudes, thus enforces the swinging motions within the Potential-Vortex-Cloud.

Energy

The Free Aether works as a 'motor' not only like a 'buffer' (situation B) affecting stronger bending of the connecting lines, but also as a 'brake system' (situation E) affecting stronger back-swinging resp. stretching of the connecting lines. Same time, the internal pressure and pulling forces are back affecting onto the Free Aether. So in total, the Free Aether motions are not weakened by the embedded Bounded Aether. On the other hand, the motion pattern

of the Free Aether, gradually from outside to inside by minimum steps, is merging into the motion pattern of the Potential-Vortex-Cloud.

By these considerations, this 'motor' works force-neutral. Within the boundary areas occur changes of movement directions – normally demanding a corresponding input of forces by known physical understanding. However remember, e.g. the spokes of a wheel affect a steady change of the direction of the rim-masses - without demanding an input of forces. This redirection is simply done by tension within the material of the spoke, by cohesion, only by 'passive' resistance, by static 'not-moving' within spoke.

Here within the aether exists just this indispensable cohesion is the decisive property. Thus any 'stress' within the aether (by pressure or pulling forces) immediately results changes of motion directions (without any friction losses). There is no smallest change of the 'energy-amount' between Free and Bounded Aether. At their boundary areas only are meeting diverse movement directions, which lastly confirm each other by mutual equal interaction.

Entropy

By common understanding of science, the universe exists of parts. Between parts indispensably occur losses by friction and finally the 'heat-death' of the universe is inevitable (often described by bad term of 'entropy').

Within the aether however, motions are loss-free and also the motions within Potential-Vortex-Clouds are running on and on. The consequences are contrary to the common entropy-statement: there is no tendency to more 'death' but more life can come up. The Potential-Vortex-Clouds show more specific movement pattern up to really individual characteristic. From these individual pattern can not result more uniform motions at the ambient aether. Opposite, only the energy of Free Aether can merge into more or larger or complexer Potential-Vortex-Clouds. So the universe as a whole gets more diversified structures on expenses of weaker universal aether movements.

Resonance

Previous giving and taking of interactions within the boundary-areas of Potential-Vortex-Clouds remembers at resonances. Also by resonance, 'energy-transfer' or transport of movement pattern occur without losses. Also within the aether all interactions work resonant and harmonic - so not every kind of Potential-Vortex-Cloud can exist steady.

This 'selection' of Potential-Vortex-Clouds occurs totally real at their boundary areas discussed above. For example, only if the four phases of picture 03.09.06 occur in regular sequence, that building-up and mutual harmonizing of swinging movements can be stable. Otherwise a local movement pattern will be 'kneaded' until fitting to the surrounding motions pattern.

The resonance is a well known occurrence e.g. of acoustics, where 'tuning' occurs via the medium of air. Resonant appearances are also known e.g. at electromagnetic occurrences, where abstract 'fields' are assumed to be the medium. The resonance within the aether by itself is based on real substantial motions and is much more compelling, because without any spreading or friction (opposite and inevitable at acoustics). All electromagnetic appearances lastly are real movement pattern of aether, e.g. to detect by abstract 'fields' affecting right angled to each other, i.e. really to explain only by real necessity of synchronous balancing aether movements into three dimensions same time, like described before.

The resonance within the aether is so restrictive to delete all movement pattern not-adequate. Their contrary movement phases result extreme building-up of swinging. If at opposite side of a cloud exists no adequate balancing pressure, the boundary area becomes extreme un-regular and finally will 'explode'.

Some movement phases within that cloud might be identical to momentary motion of the Free Aether, i.e. these movements disappear without any effect. Momentary contrary motions result balancing movements of diverse kind. Fitting sections of these motions again disappear into the motion of Free Aether. Each remaining motion is 'kneaded into fitting shape', until the whole disharmonic cloud completely disperses into the Free Aether.

This process of dispersion provides no additional energy to the Free Aether, i.e. its movements are not accelerated. The movements of the original cloud are only deformed by the resistance of the Free Aether, until lastly all movement sections are (no longer resonant, but) identical to the Free Aether. If energy would be lost by that resistance, corresponding amount of energy would be compensated by integration of fitting movement rests into the ambient aether. If this dispersion-process results no energy-surplus for the Free Aether – so, logical opposite, it won't cost energy to keep running all resonant Potential-Vortex-Clouds on and on.

The Spiral-Cluster-Tracks of the Free Aether result of many overlays, i.e. consists of many adequate sections of motions. So there are lots of movement elements, which naturally are most resonant to the movement pattern of the Potential-Vortex-Clouds.

More or less Harmony

Up to now, the local aether movement was considered theoretically isolated and these clouds as a whole were assumed to be stationary within the space. At following chapters, diverse real Potential-Vortex-Clouds are discussed and it will become obvious, countless clouds of most different size are overlaying and are wandering through the space. These clouds are physical occurrences (from the electron up to galaxies), however can also be appearances of 'fine matter'.

'Material' Potential-Vortex-Clouds are relative coarse movement pattern, i.e. between the Free Aether and these movement pattern are relative large differences of movement shapes. Fine-material Potential-Vortex-Clouds demand much less 'deformations', i.e. are much smaller overlays of the Spiral-Cluster-Tracks of Free Aether. These clouds thus are much easier to build up than coarse-matter clouds (it's much easier to produce the idea to lift a stone than to raise up a real stone). 'Spiritual clouds' can also reach out much wider (as any Potential-Vortex-Cloud theoretically has no real border). Naturally the 'mental' appearances can affect 'material' Potential-Vortex-Clouds (like naturally overlaying 'physical' clouds mutually interact).

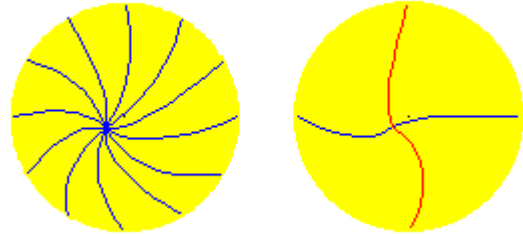
This means, the Potential-Vortex-Clouds are surrounded not only by pure Free Aether. As a cloud wanders through the space, it runs through Free Aether of most different 'colour' resp. is influenced or is moving through other big Potential-Vortex-Clouds. Depending of each character of these clouds, the wandering cloud is involved by most different affects. These impacts occur at the boundary areas of Potential-Vortex-Clouds however could also impress the whole character of the cloud.

That cloud could be influenced 'positive', i.e. mutual changes in motions pattern could affect better resonance, so both exist by better 'harmony'. Opposite, a cloud naturally could be affected 'negative' by some surrounding conditions, up to previous dispersing of the cloud based on disharmony. These effects occur between clouds of the 'material world' and also between clouds of the 'spiritual world' - however these effects of mutual influences occur between clouds of coarse and fine pattern same kind.

03.10. Potential-Vortex-Clouds

Various Swinging

At first part of these workouts was discussed why the universe has to exist of that gapless stuff called aether. At second part was discussed the swinging movement of all aether at its narrow, most complex spiral-cluster-tracks. At previous chapter was discussed the principle of locally limited movement pattern. At this animation schematic are show these motion processes.



This special motion of Bounded Aether all times borders on Free Aether, where its small-scaled trembling seems nearby resting in comparison with large-scaled swinging of the Potential-Vortex-Clouds. At previous chapter was point out, without that 'trembling' of the Universal Aethermovement no transition to the tracks more stretched could exist. If the whole universe would be without that background motions, also no local pattern of motions could occur.

At this animation left side is shown a cross sectional view at the equatorial plane. Outside around is the 'resting aether'. Towards inside the motion intensity increases, i.e. the swinging motions are of larger scale. This picture points out once more, between the centre of motions and the border areas are demanded large areas of balancing motions.

At this picture right side is shown a cross sectional view through the longitudinal axis of this Potential-Vortex-Cloud. Around this axis motions are 'tumbling', while at equatorial plane the connecting line are swaying. These swinging motions are rather different, thus the cloud not at all is symmetric to a central point. These motions are resulting of multiple overlaid circled motions, where from outside to inside come up motions of each larger radius. None of these motions can occur only at one plane, but must run into all three dimensions all times. Connecting lines thus are not only these simple curves like marked here, but build various 'loops or eyes'.

Within that motion's principle sketched resp. visualized here, thus many variations exist up to really individual motion pattern. This principle can be deduced as a theoretical necessity, however its absolutely compelling within the real gapless aether. The concept of Potential-Vortex-Clouds up to now were assumed to be stationary within space, so at first were described only as theoretical model. Now is to examine which real Potential-Vortex-Clouds are existing within the universe.

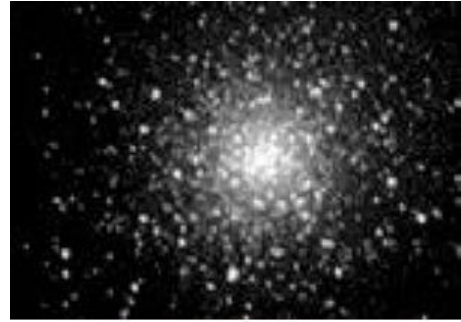
All Occurrences

Answer for this question is quite simple: within the gapless aether can exist only that pattern of local limited motions - so all appearances in principle are likely. There is only one single kind of real matter, called aether. There is only one kind of motion in general, at these Spiral Cluster Tracks of Universal Aethermovements. There is only one kind of Local Aethermovement, by the principle of Potential-Vortex-Clouds.

(This statement is wrong. Finally some years later I detected multiple possibilities for local motion pattern. So also the following statements are not completely valid).

The most large examples of these clouds are to see at heaven by millions, in shape of galaxies. The real aether motions of these occurrences we can't see, however we see the accumulation of stars within their wide balancing areas.

These pictures show diverse shapes of galaxies. Upside a sphere-shaped assembly of stars is shown, i.e. within that cloud all connecting lines are rather likely resp. all motions are similar. The picture at the middle shows a galaxy with pretty spiral arms, by which the turning motion is obvious - however there is no real turning-around within the aether, but only a motion swinging around. Many galaxies have only few arms, the picture below for example shows galaxy with only two arms, witch in addition are braked.



At astronomy is assumed, diverse shapes of galaxies represent different stage of development. By sure, galaxies wander through space and are affected by diverse influences, up to collisions between galaxies. As mentioned at previous chapter, within the universe come up more different shapes and structures all times - quite opposite to the law of entropy and its prediction of heat-death of universe at a whole.

Null Attracting Forces

The science of astronomy assumes the accumulation of stars within galaxies is founded on attracting force of materia-masses and at the centres are assumed mighty 'Black Holes'. All theories of astronomy indeed are based only at two assumptions: gravity-constant and at light-speed. Because the calculations with these factors and 'common' materia don't fit, 'dark energies' and other (pure fictive) factors were introduced.

By sight of the gapless aether, the processes are explained quite other kind. There are no attracting forces at all, the aether is an un-dividable unity, it must not be kept together because that substance by itself can not drift off. There is no other aether within a centre than anywhere, but everywhere is likely aether by same density. The aether at the centre is only swinging at some larger distances than at outer areas.

Like described at previous chapter, the mass of Free Aether around a galaxy affects some pressure by resisting momentary contrary motion phases and thus is affecting more intensive swinging of connecting lines, resulting previous overlays, loops and eyes. Into these areas also stars are 'floated', so the connecting lines become visible by these stars (and star's dust).

It exists no gravity in shape of attracting force (and no other strong or weak attracting forces exist). Nevertheless exists a tendency for accumulations based on differences of small-scaled and wide-reaching motions. Within a galaxy-cloud the potential-vortex affects the effect well known by any teacup (where coarse matter accumulates at the centre after stirring around). Mind you: the result is comparable, however not the process between 'particles' (rotating potential-vortex within a teacup) and of the aether by itself (potential vortex of Bounded Aether swinging into three dimensions simultaneously).

Attraction seems to exist just by the collision of two galaxies, as stars and dust are 'drawn' from one galaxy to the other at spiral tracks. The real cause however is based at the principle of Local Aethermovements: the receiving galaxy now not only is surrounded by Free Aether, but the delivering galaxy represents stronger resistance (at least phasewise) by its contrary motions. 'Stress' within the aether comes up between both galaxies, only to disperse by more intensive twisting connecting lines between. The stars and other material parts swim or are floated towards the dominating galaxy by these additional vortices.

Stars and Masses

Naturally also the motion principle of stars are Potential-Vortex-Clouds. Also the Sun don't exist of 'special materia' but only of common uniform aether. The Sun has no 'mass' more weighty than at surrounding areas, because the aether nowhere shows different density. The Sun still shows inertia, however based only at its movements. All aether of the Sun, however all aether of whole volume of inevitable balancing areas in addition, is moving synchronously. That total kinetic energy of the total Sun system represents its inertia - or represents also its 'mass'.

The cloud of the Sun represents a rather small vortices system within the comparably huge vortices system of its galaxy. These stars simply whirl around within the vortices of the balancing areas of galaxies. Based on previous described pressure of each zone 'more calm' (resp. areas of stronger resistance based on contrary motions), stars prevailingly are driven into zones 'more turbulent', into these areas of spiral arms of a galaxy.

Within the centres of vortices now the connecting lines of all directions meet. Already by theoretic considerations of previous chapters was pointed out, these motion's pattern are not uniform. By outer influences, these movements of diverse connecting lines become even more different. Also by stars embedded within spiral arms, these connecting lines become individual structures. All these different connecting lines meet at the centre, so naturally there comes up most heavy 'stress' within the aether. At the one hand, stars are shifted into radial direction, at the other hand the centre is a rather 'hot spot'.

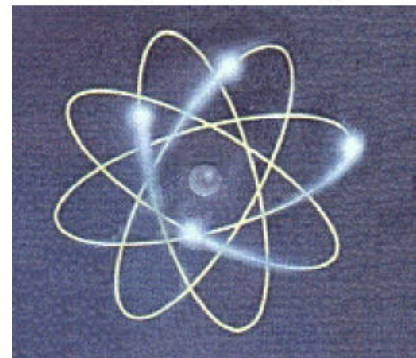
That's valid for centres of galaxies and likely for centres of stars: the Sun 'glows' as vortices must be 'kicked off' for reducing stress. This process is comparable with earthquakes, where dammed-up tensions are compensated. The aether is not elastic, each 'tension' immediately must be compensated by balancing motions. Commonly that's called 'radiation', which can show diverse shapes, in principle however again behaves like any Potential-Vortex-Cloud, however not as 'stationary' vortex, but jerky jumping ahead within the space.

Planets and Circulating Waves

At the Sun system (schematic view at this picture upside) no spiral arms are visible, nevertheless the area of synchronous motions within balancing areas reach wide out into the space - much far than the 'outer end' of the Sun system commonly is expected. That total area is the Potential-Vortex-Cloud of the Sun. The central hot core is only a tiny spot, where from all radial directions 'swinging lines bang together'.

At previous chapter was shown, the balancing motions into direction of poles show relative simple cone shape. This tumbling around the axis only is necessary for balancing the motions at 'sloped' equatorial plane. Much more complex are the balancing motions within the horizontal plane, because there are larger differences of central swinging motions towards the Free Aether. That's why previous slings and eyes of connecting lines prevailingly come up within that plane.

Like shown at chapter 'Circulating Waves', phasewise shifted circle-motions result the appearance of a wave turning around the centre - and within some of these overlaid vortices the planets float around the Sun. Like shown at previous chapter, overlaying circled motions outside are rather small and increasing towards inside.



That's why these apparent waves (visible by embedded planets) outside move slow and further inside turn faster around the Sun.

Also planets can be Potential-Vortex-Clouds with corresponding wide balancing areas around, however only if core is gaseous. Planets of solid material behave like stable vortices, which need balancing areas not thus large. Nevertheless our earth won't end at its surface, nor at its outer atmosphere, but finally outside of its 'magnet- and gravity-fields'.

At any case however, planets inclusive their 'aura' represent stronger resistance within the motion system of the Sun. The connecting lines between the Sun and planets thus are moving more intensive. The swinging motions e.g. between the Sun and the earth builds 'streak' of vortices resp. real streets and rolling cylinders, at which heavy 'storms' occur.

Each planet is bound by special connection to the Sun, however also planets resp. their wide influenced areas 'meet' by steady other constellations. Grave influences naturally result e.g. by overlays of 'great conjunctions' - much more than only bad dreams by full-moon.

These 'disturbances' appear prevailingly at the equatorial plane, correspondingly heavy motions hit the Sun from these directions. Less overlaid and less wide resp. less fast are the balancing motions of connection lines into axial direction towards the Sun. That's why the apparent wave (not visible because there are no planets near the Sun-axis) runs around the Sun relative slow - well visible by the slow turning of Sun surface near the poles (ca. 35 days per revolution) opposite to the relative fast turning of equatorial areas (one revolution within only 25 days). Only by this point of view, deduced of the understanding of the aether as single real matter with its unique property of gaplessness, this phenomena is to explain.

Building Site Atom

The model of atom still valid is deduced from the motion system of the Sun and planets (see schematic drawing upside). The logical inconsistency of this understanding is well known. The alleged attracting-, repulsive-, centrifugal- and centripetal-forces up to 'paste-particles' can not explain these appearances sufficiently. Quant-physicists hunt for sub-elementary-particles, work with pure fictive terms and are 'proud' these ideas are not to be grasped by 'normal' understanding.

Without doubt exists one elementary 'particle', commonly called electron. This is a rather simple Potential-Vortex-Cloud, like previous described theoretical model, with relative simple curves of connecting lines. Nearby same kind will be the hydrogen-atom (which does not really fit into the periodic system of chemical elements). These both 'material parts' are the absolute majority of all appearances within the universe.

It's absolutely clear, there are no concrete solid bodies of any special materia with clearly defined boundaries. Absolutely certain, these appearances are nothing else than local pattern of aether motions within the general movement pattern of all aether all around.

Atoms don't have a nucleus of special parts, but are build throughout of just normal aether. Atoms (more weighty than hydrogen) are larger Potential-Vortex-Clouds or are assemblies of diverse electron-clouds. Potential-Vortex-Clouds have individual character, 'materia' is not simply build by absolute uniform 'brick-stones'. If the Potential-Vortex-Clouds (e.g. electrons) meet each other, as a rule, at outer surfaces phasewise exist contrary motions. At the aether between comes up stress - so these clouds show 'repulsive forces'.

Only by special conditions, these clouds can 'cooperate', e.g. if motions alongside their axis become synchronous twisting movement. Then these clouds at these sides partly are protected versus the general pressure of Free Aether. Also larger assemblies can come up. Sometimes one cloud adapts the shape abruptly to fit with an other cloud, so 'energy

radiates'. Sometimes that assembly works only if the clouds are pushed strongly together, i.e. this combination demands 'energy'. The cohesion of these molecules is more or less strong resp. weak, depending on the geometry at mutual boundary faces.

The 'mass' of chemical elements is not determined by its nucleus (because there are no special elementary particles). The whole formation however includes all volumes of involved areas of complex swinging motions: the tiny centre of swinging motions, diverse involved electron clouds, above this also the balancing areas further outside (practically the 'aura' around any assembly of Potential-Vortex-Clouds). If vortices systems collide, they meet at these outer areas resp. already between its most outer borders comes up previous described 'repulsion'. Atoms show different structures of surfaces, different 'bulky' to each other, thus mutually showing different resistance. This resistance of vortices systems – that means the terms of 'mass' resp. 'inertia' by which they keep distance to others or force the movement direction.

Pervious / impenetrable

If one directs a small Potential-Vortex-Cloud - a photon – towards a chemical element, it can penetrate into that cloud until meeting strongly contrary motion, so the mini-vortex of the photon is rejected. This will occur at this or that spot of actual bending at a connecting line. Based on this mirror effect, 'uncertainty-theory' was deduced with its unlucky story of escalating really unbelievable and improbable dis-conclusions (up to the assumption, the observed 'wave-particle' would observe the operator of the experiment, e.g. at well known double-slot-phenomena).

These (wrong) judgements essentially are based on the fact, common physics as a rule observe only the 'core' of an appearance. One knows there are some 'fields' around an occurrence, however one does not consequently include it into the considerations resp. one assumes these 'aura-aspects' only as abstract (side-) effects, instead understanding just these appearances as totally real und absolutely necessary motions of the aether.

At radiations or electromagnetic waves for example, only the centre of swinging motions is judged as real appearance - however the extremely wider and inevitable balancing areas around are not included in the considerations. At atoms and atomic compounds for example, most important are judged the 'atom-weight' and the 'valence-electrons', based on separated particles, however not sufficiently is considered the total structure of these complex vortices systems.

At analyses of elementary particles the research is concentrated on the detection of new sub-particles, instead of seeing these appearances as demanded bending and winding of connecting lines. One can not penetrate into these vortices systems without disturbing it (at extreme case comes up most extreme 'stress' within the aether, e.g. in order to hit 'holes' into the undividable aether, e.g. at the attempt of splitting the atomic nucleus).

Smaller Potential-Vortex-Clouds can float within larger vortices rather problem-free. That's the dominating process within galaxies and Sun systems. Likely Potential-Vortex-Clouds however have likely strong movements and based on many momentary contrary motions they are mutually impenetrable, are even repulsive, if they can't dock onto each other at suitable faces. This is the dominating process within the area of 'material bodies' (from electron via atoms und molecules up to the variety of its accumulations).

This coarse appearance of parts are our concrete world of experiences, within which we come along rather easy. These experiences however are hindering the recognition of that other 'world', existing not by separated parts but existing by mutually penetrable swinging motions. We well know that possibility of penetration of well known physical occurrences, e.g. of some kind of radiations or 'fields' in general.

Hologram and Focus

Classic physics however expel all other occurrences into the 'dubious' meta-physics. The dominating process of 'fine matter' clouds is the easy penetration of Potential-Vortex-Clouds through others. It's clear, 'fine-matter' swinging motions can overlay all other movements without problems. If that kind of 'spirit' meets materia, naturally come up changes of movements for some moments and both clouds mutually are affecting each other.

Moimentary contrary motions however are not so 'massive' and not of equal 'forces' to repulse the whole fine-matter cloud already at the boundary areas of a coarse-matter cloud.

Fine-matter clouds (like all others) in principle must be closed potential vortex systems. These clouds however can be much wider, because they show movements only gradually other kind than Free Aether, so the Universal Aethermovement affects much less concentrating pressure. Naturally fine-matter clouds also show less repulsion momentum versus other fine clouds, i.e. these 'spiritual' clouds will overlay multiply.

Fine-matter clouds thus practically overlay all Free Aether. Previous Spiral-Cluster-Tracks are omnipresent within the universe, however will practically nowhere be of 'pure' shape. Universal Aethermovements have order-function, e.g. because previous Potential-Vortex-Clouds of 'material world' can steady exist only when sufficiently resonant to these basic swinging motions.

Analogue are 'spiritual' clouds omnipresent (at least within wide areas of the universe), based on their far-reaching extension. As already discussed at coarse Potential-Vortex-Clouds, all motions within the wide balancing areas depend on motions at the centre of cloud (and are depending on circumstances at outer border areas). These 'informations' thus are stored everywhere within a cloud, practically like stored within a hologram (however not uniform, because motions differ within different regions of cloud, so the direction towards the core is to recognize from all sides).

Based on its large extension, the clouds of 'spiral content' can also show order function, thus affect other 'ideas' like material occurrences. This influence however is not so massive and thus not compelling like the Universal Aethermovments. If however clouds show 'mental readiness', are attentive resp. focussed accordingly, these clouds can be sensible receivers, i.e. synchronous swinging can come up, based on principles of resonance - and can even recognize the 'core of matter' by registered impulses.

Opposite, mental swinging motions of a local 'cloud' naturally can be included into motion pattern of a wide-reaching cloud, depending on intensity of its behaving in general. These mutual influences can become rather massive (nearby of 'material' hardness), if many like-minded enforce each other by resonance.

Overstep the Mark

I realize putting off many reader by this 'sweeping attack', especially nature science oriented readers (if at all they took 'torture' to reading so far). Without any doubt many phenomena are not to explain by common physics and I mentioned only some of at previous examples. It's up to each reader to check his special themes by that point of view of gapless aether and inevitably deduced possibilities and necessities of movements.

I'll make workouts by separate parts and many chapters to every subject mentioned above. This will take months and years. I would appreciate if others would develop precise ideas to diverse problems, based at these starting points and based at their profound knowledge. At any case I thank for hints in advance.

Metaphysical oriented readers might already understand by previous statements, that and why and how these recognizable connections between 'spirit and materia' are based at

really physical level of the substantial medium aether - and not at all are only sloppy sentimentalities or esoteric stuttering. However I can do precise workouts to that 'Aether-Philosophy' finally after description of the Aether-Physics - and I hope for many intuitions in the meantime.

At last sections I used some 'empty words' e.g. like mental readiness, spirit, ideas, focus, sensible, receiving etc. At later workouts I'll try to define precisely also these appearances by concrete structures of motions. Some of physical like mental terms are already clear for me, concerning other problems I still need further 'dropping-in' of ideas. For example the Potential-Vortex-Cloud of the term 'will' seems rather essential - and not easy to crack.

I well realize, for many readers these intensions are highly strung nature. That's why next chapter comes back to quite real stuff, nevertheless absolutely unimaginable or unbelievable: scales of sizes of our world. On the other hand it is to talk about, how Potential-Vortex-Clouds can move through resting aether, e.g. the light. Lastly it's to talk about these solid bodies, e.g. the rotating earth, at following chapters.

03.11. Wandering Potential-Vortex

Gaping Void

The movement processes of aether within aether might be unbelievable to readers, even there are motions of similar kind well known, e.g. quite real at liquids and gases. Indeed unimaginable, i.e. totally outside of our concrete world of experiences is the scale of macro-like micro-cosmos. At picture 03.11.01 at A 'nulls' schematic are marked at a scale of distances.

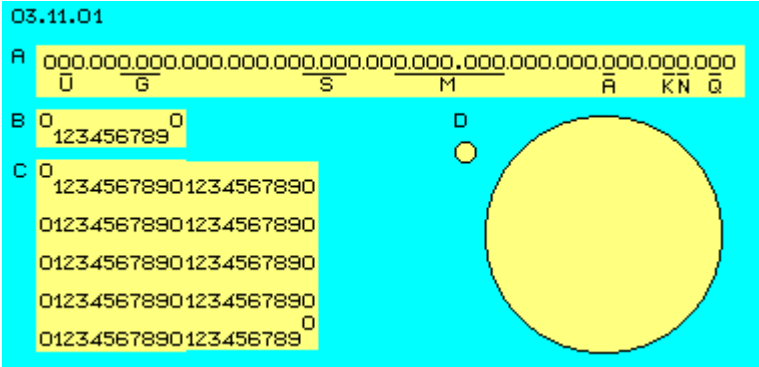
'Human measure' of metre (M) is chosen as starting point. Mostly we handle bodies of decimetres or centimetres, however our natural possibility for differing already ends by millimetres. Only with technical equipment are measurable the micrometres and already the nanometres are the border of technical operations. Atoms (A) should be ten billions smaller than our metre, once more ten thousand times smaller should be their cores (K), ten times smaller elementary particles (N, e.g. nucleons), these build by hundred times smaller sub-elementary particles (Q, quarks).

Nulls-behind-decimal-point (or 10^{-17} or 10^{-18} etc.) are easy to write, in reality however each further null means dividing the previous smallest unit into ten parts (like marked at B).

If we go ahead by metre-steps, we can easy reach out for ten, hundred and thousand metre. Most people don't like to walk

ten kilometre, only some few want to run hundred kilometre. So our natural real experience already ends by kilometre. Longer distances we prefer to rid by motorcar or airplane.

Nulls-ahead-decimal-point stand cool one aside next at this scale. Easy five nulls ahead, already the region of celestial bodies (S) is achieved, once more twelve nulls guide to galaxies (G), only further four/five nulls the universe (U) probably ends. Each null means, each step has to be done ten times (like marked schematic at C). Our practical experience is one-after-the-other, so we tend to read nulls like an addition, while each time the values are multiplied.



We have a 'sure' feeling only for addition, estimations concerning multiplication or square mostly are wrong. At D for example, two circles are shown, the radius of the wide circle is only ten times larger than the radius of the small circle - however the small face fits into the large face one hundred times. If this additional null same time is valid for three dimensions, one null means factor 1000 (or if universe and previous 'clouds' are assumed to be spheres, still three third of 1000, so each next null represents a volumes by factor 750).

Atoms thus are smaller by billions than our metre and what we normally call materia are miniscule tiny particles within comparably vast space, consisting of emptiness or of nothing or at least of no matter, so at a whole nearby nothing within nearby unlimited nothing - by common understanding. Opposite, also large material bodies nearby are nothing resp. at least miniscule tiny matter within the emptiness of the universe, e.g. the total common materia is merely five percents and the remaining rest should be a dubious 'dark energy or matter' - by common understanding.

Basis in Question

Nobody is able to get a real idea of these minimum-small and huge-wide distances and volumes. So it doesn't really matter, how much digits ahead or behind the decimal point each appearance should define - it's all times an incredible really astronomic relation.

The size of the universe is deduced of gravity affecting at earth - and it's absolutely not sure, whether this absolutely not constant value is valid within all wide regions of the universe. The second factor of calculations is the light-speed like measured at the earth with its (supposed) linear spreading - however that speed nowhere is constant, is different within different medias, light is bended and refracted. Third assumption is, red-shifted light frequencies are based on movement directions and movement speed - however also this occurrence could have an other reasons.

So at a whole it's rather questionable (and known, however merely published) whether it's reasonable and realistic to make projections at many decimal digits far out into the macro-cosmos, based at these few and not sure factors. Opposite, the size of micro-cosmos seems to be more precise - if the uncertainty of researches concerning (suggested) particles is neglected resp. there are reduced at only mathematical operations without any concrete relation to real experiences (and also this problem is well known, nevertheless explanations of common world-view mainly are based at pure mathematical attempts).

Minimum Swinging

At schematic drawings of Potential-Vortex-Clouds of previous chapters, the central swinging was drawn extreme large in relation to the circumference of the whole cloud. Swinging can't exist by these relations. At galaxies or sun systems or atoms, all times are many nulls between the core and the total extension. The radius of outer 'border' of these Potential-Vortex-Clouds is larger than the core at least by ten thousands, by millions up to billions.

Again it might be unbelievable for us 'coarse-matter-objects', these minimum differences of motions within the aether could have such importance. On the other hand, if the universe would not exist of gapless aether, but would be build up by particles - why should be necessary these 'crazy-wide' spaces between of nothings? The emptiness of the outer space could be 'explained' as a consequence of big-bang: However this strange effect is only based at previous mentioned projections. The necessity of the emptiness of the micro-cosmos, these strange distances between tiny particles, however is not to explain by common understanding.

Only if the aether is assumed to be substantial and to be a gapless continuum, the aether can not move any kind, these large differences of distances between and inside of



movement pattern are inevitably demanded, at such gigantic tall appearances like at minimum small occurrences.

That's why I pointed out all times, the balancing areas between the motion core and the outer boundary areas of clouds must be extremely large. So previous drawings show only distorted view - like any picture e.g. of galaxies like atoms can show the relations only overdrawn (not only this photomontage of moon and earth).

I leave it to experts, which scale of relations of core and total volume of Potential-Vortex-Clouds might be valid. This question has no real answer, because the outer borders never are sharp (like commonly suggested at material bodies). At any case however, the differences of ways of motions in relation to the diameter of a cloud will be really 'astronomic' thus far out off our experiences. Following example might probably give a good impression.

Along of straight road are parking 320 cars. Some drivers are searching their car a quarter of an hour, until the last car, thousandfivehundred meter ahead. These cars would fit into a parking cube of 20 by 20 by 20 metre (however without place for driving). At the centre of that huge-stuff, something is trembling one millimetre back and fro - by 10.000 millimetres distance to the outer walls. This will be the minimum relation between the motion core and the total volume of the local aether movement. If at the centre something swings around one volume-unit, there would be involved inevitably (within a sphere) 6.000.000.000.000 volume-units of balancing co-swinging motions.

If only one more null is assumed, thousand times more cars would fit into that gigantic cube of twohundred metre edges - for months a driver could search for his car within. At real Potential-Vortex-Clouds also some more nulls could well be demanded for the central motion within a cloud - so at the middle will be some special 'trembling' nearby not to recognize within the huge balancing area, reaching extremely far out to common and even finer 'trembling' of surrounding Free Aether.

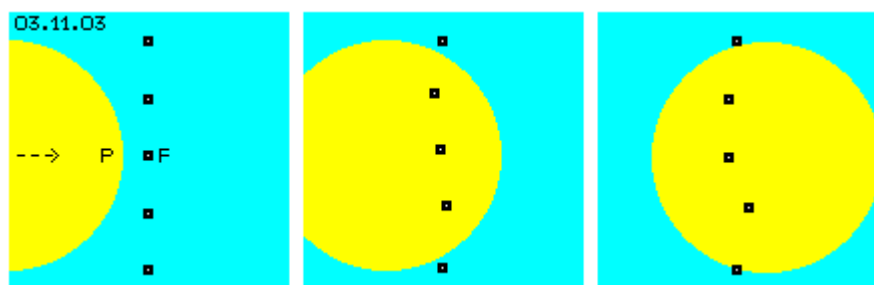
Wandering Vortices

At first chapters of Local Aethermovement, the motion process of Potential-Vortices was demonstrated by clouds 'stationary' within space. Lastly at previous chapter was included these vortices systems could also wander through the aether, e.g. like galaxies or atoms or single electrons are moving within the space. Thus the really 'resting' Free Aether would only be located outside of galaxies.

Within the spiral arms (these bended connecting lines) of galaxies, the aether is moving at wide swinging motions. Within that whirling aether, the celestial bodies are floating. By previous mentioned pressure, these bodies not only drift within the aether but now also are moving relative to the surrounding aether. Lastly e.g. the earth rotates also around its own axis and e.g. materia above or at its surface again shows relative motions. Thus indeed, all vortices systems and also the solid 'material' bodies perform multiple overlaid motions within the space.

At picture 03.11.03 now is shown a single Potential-Vortex-Cloud (P, yellow), moving from left to right at these three parts of picture. The resting aether (relative to this motion-ahead) is marked by five black points (F). This 'Free' Aether does only the Universal Aethermovement at short distances, so here is assumed to be stationary.

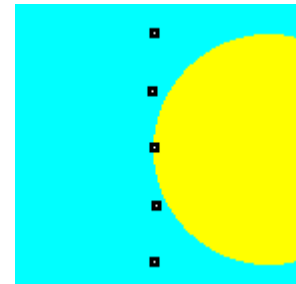
Motion-ahead of the cloud was started by any cause (e.g. collision of galaxies, other reasons are



mentioned below). The aether volume of this cloud thus shows kinetic energy in addition to its internal movements. However, there is no 'mass' (and even not by sharp borders with fix contour) moving through the Free Aether. Wandering through space is only this motion pattern of a complex vortices system.

Previous three pictures are parts of this animation, which visualizes the movement processes. These five observed points of Free Aether take the motion pattern of each connecting line of the Potential-Vortex-Cloud, while this system moves through its local position. Only phasewise these points 'dance' corresponding to the motion pattern of this part of the cloud.

The aether points quite upside and quite downside at the outer boundary area of the cloud are merely involved by the vortex passing by. Only the points between, for a short moment do some other kind of motions than normally they move. Based on the principle of Potential-Vortex-Clouds all neighbouring points do corresponding balancing movements. If this cloud passed by this region, again the motion pattern of Free Aether nearby unchanged is going on and on.



At this Potential-Vortex-Cloud no connecting lines are marked. It doesn't matter which direction the Potential-Vortices wanders, whether by one pole ahead or diagonal or at equatorial plane or even rotating or tumbling. At any case all internal motions occur synchronous into all directions same time. And at any case, the aether outside of the boundary areas of a cloud move like Free Aether at Spiral-Cluster-Tracks, as usual.

Only Structure wandering

'Coarse-matter-humans' again do hard to accept this idea: at no times solid bodies with its masses move through the space, but 'only' the structure of aether-vortices wander through space resp. not through the abstract space, but quite really through aether relatively resting.

All appearances are certain pattern of motions within the uniform aether. The aether at all places is relative 'stationary'. Free Aether is moving only within the scale of its universal movement at Spiral-Cluster-Tracks. Bounded Aether of large vortices systems move at wider tracks (however still within limited regions) e.g. within the area of swinging motions of connecting lines. Embedded into these large Potential-Vortex-Clouds are smaller ones, floating and wandering within - however only that kind, the involved local aetherpoints behave like other motion pattern demand, and only for short time of passing through.

'Coarse-matter-people' do hard to leave the idea of solid particles and stable bodies. By 'normal' understanding, all times something moves relative to other stuff, e.g. even within a river the material water moves ahead relative to material ground. At the level of aether - and materia and material bodies lastly exist of nothing else than aether - no thing moves forward, no portion of aether-volume moves far, but only the pattern of motions wander far ahead, nothing else, nothing more, nothing less.

It's hard to find an example of material world fitting to this process. The best example might be a vortex within a stream. Water flows down a brook and all parts of water do same vortex-motion at one special place, e.g. initiated by a stone. This pattern of the vortex is stationary, the water flows through that vortex during its normal wandering downward of stream.

Exactly like this, a aether-vortex moves ahead within resting aether - only by view vice versa. By view of the observer (e.g. one water particle) floating within stream, he (it) moves into direction of the vortex, does its dancing motions for short moment, afterwards this vortex disappears - by view of observer - upward within the brook.

Also small wind-whirl rushing ahead at street (by nearby calm air in general) could be a good example. For a stationary observer (resp. one point of Free Aether) this appearance is analogue to the previous one: there is an air-vortex coming towards him, he is forced to perform partly that vortex-motion pattern for short moment, afterwards the whirl-wind runs off further ahead its track. After some moments, everything is quite calm, like before.

Inertia

Now naturally the question comes up, why a Potential-Vortex-Cloud should be able to 'press' itself steady through the aether. The cloud has to impress its motions pattern onto the resting aether for short time - and afterwards everything should be like before, the vortex should go on walking ahead without delay and the resting aether should 'rest' like usual at its place.

By common view of material occurrences it's clear: the inertia inherent mass keeps constant the speed and direction of a moving body. It's clear, a particle in motion through nothing (e.g. through empty space of common understanding) can move on and on (or e.g. within air its speed is only reduced by friction). It's also clear, for stopping a forward movement of a particles, a force is demanded corresponding to the original impulse resp. to the kinetic energy of this mass in motion.

However it's not quite clear, why particles also resist vehemently versus each change of motion direction, as thereby the speed is not reduced and aside of the track is nothing to hinder a change of direction (besides e.g. previous air). Why for example, should be demanded enormous centripetal forces for the 'acceleration' of mass into a steady circled track?

This is not really to explain by evasive term of 'inertia inherent to mass'. When observing basic aether movements of 'mass and its motion', the reasons for their constant speed and direction is well to explain. By view of the material world and its particles, inertia without any loss is possible only theoretical resp. in reality losses by friction are inevitable. Only if the aether is understood as real continuum, constant of energy not only theoretical but also really is valid.

Jerky ahead

At previous chapters was stated, the Bounded Aether at its outer border areas is involved by the Free Aether. The Free Aether resists versus momentary contrary motions of connecting lines and thus affects centripetal pressures. These affects are balanced by motions more intensive further inside of the Potential-Vortex-Cloud by stronger amplitudes. These pressures are compensated at phases of momentary motions into same direction, lastly resulting stable Potential-Vortex-Clouds if sufficiently resonant. By these pressures of all sides, the clouds in principle become sphere-shaped, however with differing motions into different directions.

If now this cloud is moving ahead in addition, all internal motions have impressed an impulse into that direction in addition. At the front of the cloud, thus phasewise results higher resistance of Free Aether. At these phased, the cloud is decelerated at its forward motion. The connecting lines are compresses and balancing motions right-angled must come up. If now next moment the motions show into likely directions, that 'tension' can escape into correspondingly stronger forward motion.

So at a whole, the cloud will show some more pulsating internal motions, even its sphere-shape could be compressed and expanded pulsatingly. At a whole, thus a Potential-Vortex-Cloud won't fly ahead like a bullet by constant speed but moves jerky ahead within the aether.

Also at classic physics is assumed, motion ahead of sphere within ideal gas theoretically is without friction. Increased pressure at the front side immediately spreads into all directions, thus also to the rear end of the sphere exists likely high pressure. The sphere thus is pressed ahead from its rear side just as strong as it's blocked back at the front. Nevertheless at real gases resp. within a medium of particles in general, spreading losses are inevitable.

Only if the aether is assumed to be a gapless medium, constant kinetic energy exists also in reality. Now one could imagine, a Potential-Vortex-Cloud at its front side pushes the aether aside and this 'overcharge' of aether escapes backwards behind the Potential-Vortex-Cloud. This far motion of dislocation however doesn't exist, because this process would demand shifting of material at border faces. So the comparison of ballistics (like photon-particles commonly are understood like bullets) doesn't fit and also the comparison of aether with an ideal gas doesn't work.

Lossfree constant of kinetic energies of forward directed motions is only to understand by phasewise and total 'intermediate storage' by more intensive internal swinging motions right-angled to the motion direction. Depending on the momentary situation concerning likely or contrary motions, pulsatingly occurs motion of pushing-ahead, alternating with building-up of internal swinging cross to motion direction.

So (at the moment) it doesn't matter which side ahead a Potential-Vortex-Cloud is wandering through the resting aether: all times the connecting lines into movement direction are compressed / expanded and cross to that direction balancing swing-motions show pulsating amplitudes.

Speeds

Dimensions at micro- and macro-cosmos differ extremely and also differing are speeds within. Our 'natural' speeds are some few km/h or m/s. We have concrete experience with the sound-speed of approximately 300 m/s. We also build machines with even faster speeds.

The earth wanders through the space, however we have no direct impression of. We register the seasons only as secondary appearances. The rotation of the earth around its axis is a concrete experience by day and night. However we have no concrete impression of the speed of that roundabout. Within 24 hours, one point at the equator moves some 40.000 km, that's nearby double sound-speed. Further up at globe, e.g. at Europe, we race along by sound-speed, thus by some 300 m/s - and don't feel anything about.

Light is incredible fast, we only can take theoretically, within one second light would run around the earth seven times, with some 300.000 km/s. It's above real imagination, the light with its 300.000.000 m/s is faster by million than the sound - which is extremely fast compared with our natural speed of movements.

So if we handle or move ahead any material body or if we rotate around with the earth even by sound-speed, this wandering of assemblies of Potential-Vortex-Clouds occurs by nearby negligible slow speeds, compared with the light-speed - and thus in relation to the motion speed of 'resting' Free Aether at its Spiral-Cluster-Tracks.

Light-Speed

The universe is so large, its distances are measured by light-years, thus by 300.000.000 m/s multiplied by more than 30.000.000 seconds of a year, thus this unit is some 10.000.000.000.000.000 m long - and the universe should be wide again some millions of such units. Light is un-imaginable fast in relation to our normal experiences. Nevertheless it's hard to understand, why motion should be limited to a certain value and light's travel through the universe should take so 'infinite' long times.

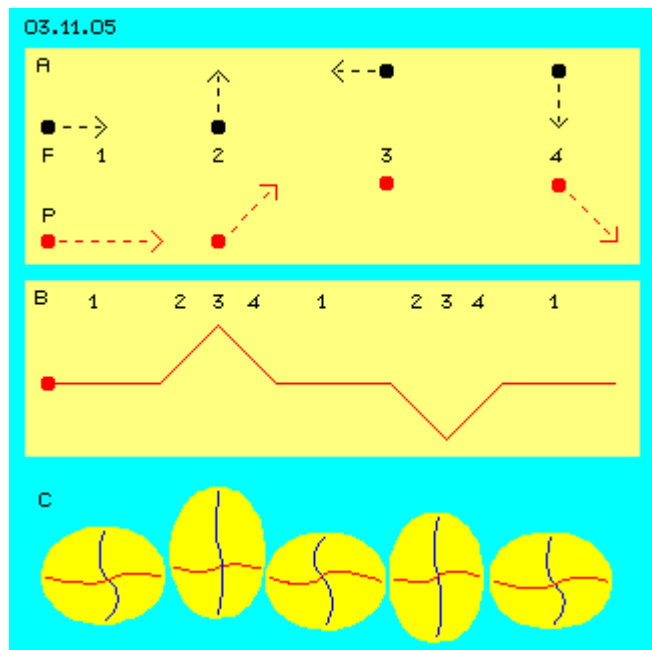
Light's speed can not be limited only by some abstract restriction, but the limitation must have concrete reason, which must be determined by the medium light is moving within. The light can not be transmitted by a 'vacuum', the light must be special kind of aether movement. Other motions (besides Universal Aethermovement) are locally limited, thus are Potential-Vortex-Clouds, which naturally can wander through the 'resting' aether (as separated clouds or repeatedly by likely clouds, or as assemblies of potential vortices, e.g. like the earth as a whole). A 'photon' thus can not be any particle nor it's represented by any wave, but photons are relative small Potential-Vortex-Clouds (because photons have nearby null or just no 'mass').

As light is so fast, it can not tumble somehow through the space (like mentioned upside, no matter which side ahead), but must move most best coordinated with Free Aether motions. That cloud must wander through the Free Aether with one pole ahead, because twisting around the axis is the motion less problematic (compared with tumbling swinging motions at the disc of equatorial plane). Nevertheless this little Potential-Vortex-Cloud shows phases with likely or contrary motions versus the Free Aether.

Hopping Photon

At picture 03.11.05 schematic are shown diverse phases. At A upside is drawn a point of Free Aether (F, black), where the arrows marks its momentary direction (1 to 4). Instead of its complex motion at Spiral-Cluster-Track here simply is assumed, it can move only to right side, then upwards, afterwards to left side and lastly back downside.

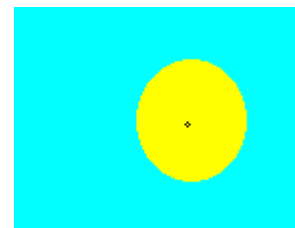
Below is marked a 'photon' (P) as a red point, which got an impulse for general motion towards right side (the reason for that impulse is mentioned later). The speed of the forward motion is assumed to be like the speed of the Free Aether point.



At phases of likely motion (1) thus that photon comes ahead rather far. If the Free Aether moves aside (phases 2 and 4), photon drifts also into this direction and comes ahead corresponding to its own speed. If the motions are contrary (3), the photon won't come forward.

At this picture at B, the way of that photon schematically is marked, based at this generalizing point of view. The photon walks forward by differing jumps, is also rocked sideward, some times even is resting for a short moment. The real tracks will not be schematic like this drawing (because Spiral-Cluster-Tracks are not symmetric like marked here), the real track of a photon indeed max look rather chaotic.

However not the total photon will be rocked like this, but the cloud would behave and move ahead like amoeba does. If the forward motion is decelerated at front side, balancing motions will be enforced into direction of momentary less resistance. The general sphere shape of the cloud will merge into rounded shapes, asymmetric to its longitudinal axis, by steady changing contours.



At this picture at C the changing shapes of the cloud schematic are marked while the cloud moves from left to right side. At this animation also are visualized that jumping-ahead, the resting-phase and the steady changes of the clouds outlines. This animation is rather coarse, nevertheless the real process of motions well could be likely (naturally with smooth transition of shapes and speeds).

Electromagnetic Waves

At the appearance of an 'electromagnetic waves' is well known: at the front side comes up an electric field for a short moment (here jumping-ahead of the twisting motion around the longitudinal axis), afterwards appears a magnetic field some aside (here more intensive swinging motions at equatorial plane, thus cross to the longitudinal axis, and shifted aside corresponding to the momentary motion of Free Aether). The electric like the magnetic field disappears periodical and appears further ahead and/or some aside the original axis. That strange behaviour is only to explain by previous motions within that real aether.

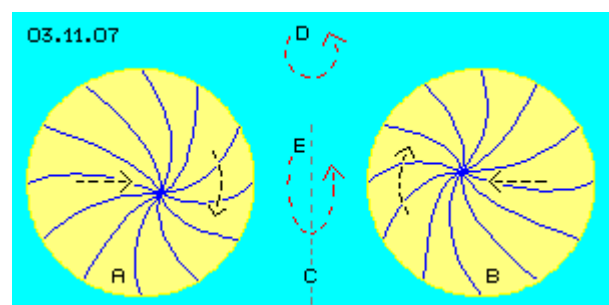
Photons thus are no particles and electromagnetism is not based on classic waves, and particle-wave-dualism can not exist but is only an empty word. At 'electromagnetic waves' are wandering the motion pattern of Potential-Vortex-Clouds through (relative resting) aether, nothing else, nothing more, nothing less.

The left turning pole is directed forward. The twisting motion around the longitudinal axis makes the front side aether moving at increasing larger swinging tracks (commonly called 'electric field'). If the equatorial plane of the cloud passes the local Free Aether, much wider balancing motions of radial connecting line are present there, i.e. the swinging motions cross to the longitudinal axis come up with the appearance of a circulating wave (commonly called 'magnetic' momentum). Afterwards, corresponding to the decreasing twisting motions (at the rear end pole) the Free Aether comes back to its normal motions at its common Spiral-Cluster-Tracks.

However this process is not quite continuously. If at front side are phases of momentary contrary motions, the vortex is compressed in its longitudinal dimension. Inevitably the resulting balancing motions cross to the axis will not be symmetric with same intensity into each direction, but intermediately they will escape into direction aside of momentary most less resistance. In general, the resistance around the equator is most strong (because of most large swinging motions). As soon as at front side comes up a phase of less resistance, intermediately deformed cloud will push ahead its tip again. Resulting of is that jerky jumping-ahead of electromagnetic waves with its asymmetric swinging cross to longitudinal axis.

Born by Stress

At picture 03.11.07 now schematic is shown the source of 'electromagnetic radiation' in principle, for example the 'birth of a photon'. Two Potential-Vortex-Clouds (A and B, here schematic drawn by cross sectional view) move towards each other (marked by arrows). Normally, this collision is 'cushioned' already at their boundary surfaces resp. both clouds repulse mutually, based on their contrary motion's phases. The connecting lines are compressed, thus their swinging motions are enforced. The 'internal tension' relaxes as both clouds fly off into direction of most less resistance.



If however this collision occurs by high speed rather vehement and if both clouds even are contrary turning (marked by bended arrows), 'stress' comes up within the aether between both clouds. At this picture, the aether should have to move down at left side and the neighbouring aether at right side should move

up. There is 'danger' for coming-up of border-layers (C, grey dotted line), where aether-volumes would be forced to shift resp. glide alongside each other.

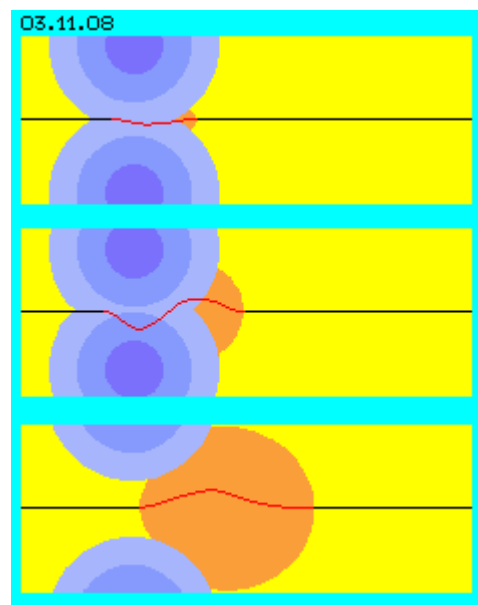
The Free Aether swings at Spiral-Cluster-Tracks, here schematic marked only by a circled track (D). Previous shifting can not occur within the gapless aether. Any 'tension' is only to avoid if the narrow motions of Free Aether become stretches (here, left side moves some further down), into both directions (thus short time later some further up at right side). Instead of previous schematic circled track thus results a track of elliptic shape (E).

The transition of previous circled track into that larger elliptic track can not be done abruptly, but only in shape of each wider spiral tracks. Above this, this motion can not occur only at one plane, but same time has to occur right-angled in addition. So there will come up a spiral cone shaped track, here at this picture with its tip coming out of the drawing plane. Like mentioned upside: a twisting motion around the longitudinal axis of front side pole 'is born'.

By this vehement collision thus a new Potential-Vortex-Cloud is 'pressed out' between both collision-partners. Its necessary balancing motions correspond to the motions at the faces of responsible partners, so the stress-situation disappears. The Free Aether between both clouds comes back to its original shape of motions, again swinging synchronous with its neighbours. Also this transition occurs smoothly and thus the twisting motions of the rear pole come to an end.

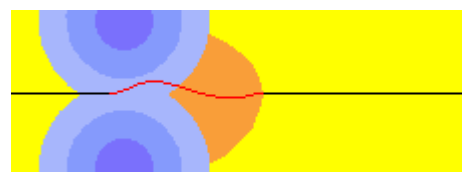
Exactly Fitting

At picture 03.11.08 are shown three phases of the animation below, which illustrates this process. Both collision partners (blue) here move vertical towards each other and its outmost areas dive into each other. Right angled to these motions, a photon (red) is pushed off. The horizontal connecting line (black) marks points of Free Aether, which intermediately become twisting along the longitudinal axis of the photon. These pictures again are highly overdrawn and can show process only schematic.



When we 'coarse-matter-bodies' see these blue objects racing towards each other, we instinctively expect crazy crash with destroying energies. Totally opposite is the situation within the aether. There do not blow up material substances through the space, here only fly away new movement pattern through the (resting) aether - of perfect shape, e.g. as a photon, strongly according to characteristics of the aether.

This photon becomes born only by corresponding stress situations (if internal swinging movements of clouds can not cushion a collision in time). Then the aether has to react by its most high speed for changing pattern of movements: transforming the Universal Aethermovement into the complete structure of a new Potential-Vortex-Cloud inclusive all necessary balancing motions simultaneously (and coming back to its original motion's pattern). This transformation of motions can occur only if both collision partners contribute fitting impulses for according motions (there can not come up something out of nothing, like e.g. 'virtual particles' of some theories of common physics).



As this new vortex directly comes out of the motion pattern of Free Aether, 'from birth' it is resonant to

Universal Aethermovement. Because it is similar to Free Aether, its balancing areas can be rather small (nearby mass-less photons). Because its motion's speed corresponds to the speed of Free Aether (only at tracks some stretched), it can 'screw-ahead' (like discussed upside) aether-conform - however not slower or faster but exclusively by light speed.

So by this aspect, the pattern of that Potential-Vortex-Cloud moving ahead, perfectly fits into the motion pattern of resting aether. This means however same time and inevitably, the speed and direction of a moving cloud can not be totally constant. There is practically nowhere Free Aether in pure shape, everywhere its original pattern is overlaid by diverse other pattern. Therefore e.g. the resistance at front side of the cloud is not completely symmetric, i.e. light is bended.

Naturally the light can be slowed down (if moving towards a non-symmetric overlay), thus e.g. the impression of red-shifted light appears. For example, motions of Free Aether within glass or water is shaped little bit other kind, so light comes along within these media some slower. The Potential-Vortex-Cloud by itself is unchanged, only its forward motion is delayed by differing resistances. Some later within the air, the photon pattern will run faster (will 'screw-ahead' corresponding to the characteristics of aether at this region).

Electromagnetic waves thus are a perfect interaction of resting aether and Potential-Vortex-Clouds running forward - where however the speed and direction completely depends on the 'status of resting' of the aether passed by. So the constant of speed nor its linear direction can be valid - with far reaching consequences concerning common understanding of physics.

Coarse Matter Vortices

Previous motion principles are only valid, if the aether is considered to be a gapless continuum. Locally limited movement system within the aether are only possible in the general shape of Potential-Vortex-Clouds. Pattern of Potential-Vortex-Clouds can wander through the Free Aether, either by light speed (if exactly resonant to Free Aether) or with any lower speed (like e.g. free electrons resp. like shown at picture 03.11.03 upside). Naturally also assemblies of Potential-Vortex-Clouds (e.g. atoms or molecules) or their accumulations (e.g. the earth) can wander through Free Aether or 'tumble-around' within any kind.

Finally at that level starts the 'material world' and are valid their physical laws and characteristics, e.g. of different density or heat. Materia is put together by numberless tiny Potential-Vortex-Clouds, materia by itself however is no Potential-Vortex (e.g. the earth rotates as a solid body resp. rigid vortex). Each of these 'material' accumulations has its own balancing region, thus borders at Free Aether without problems. Also the earth is embedded within a balancing region, e.g. with the appearances of earth-gravity and earth-magnetismus.

At previous chapters was mentioned, at outer boundary areas of Potential-Vortices exists smooth transition (from universal shape of motions to the coarse long-stretched motion pattern). Within these regions also exists that pressure of Free Aether, practically its phasewise resistance versus momentary contrary motions.

Also within the environment of compounds of Potential-Vortex-Clouds this stepwise transition exists and also previous pressure correspondingly. Resulting of is the appearance which is described as attracting force and commonly called gravity. However, attracting forces can exist at no case, within no medium (but is only a pure abstract idea within a fictive media of vacuum). A relative pressure (called gravity) exists only within the 'aura' of celestial bodies, only within a small boundary area of transition around material accumulations. Gravity thus is an occurrence locally limited, around all celestial bodies, however not affecting into the boundless space, even not working between Sun and planets.

At the rotation of the earth around its axis, no 'materia' is moving within space. Only the pattern of each single Potential-Vortex (this assembly of solid, liquid, gaseous, 'dead or living' occurrences) move ahead resp. around within the relative resting aether. The aether by itself is (nearby) not bothered by this process of passing by vortices. Inside of the earth however, the Free Aether between these narrow arranged clouds naturally is no longer quite 'virginal'.

Viewing from outside onto border areas of Free Aether towards the earth-materia, the Free Aether is 'brushed' by earth rotation all times same direction. The aether there is not transported far away, nevertheless that 'wind' of passing-by motion-vortices results some small swinging vortices of Free Aether, parallel to the earth axis. These vortices don't reach far into the earth. They reach outward - as far as earth-magnetism exists.

Radiation from the Sun deforms this 'field' of earth-magnetism and opposite, 'hard' radiations are affected by this field. Small swinging motions or earth-magnetism naturally overlay the motion pattern of the aether within the 'aura' of the earth, naturally also previous 'gravity' deforms the aether of this region. Thus naturally the light moves other kind near celestial bodies than the light is moving at the 'out-back' of the universe. The light already is diffracted at any sharp edge - however not based at Relativity-Theory (and abstract mathematics), but based on quite real aether motions of most diverse shape (which are not to describe by simple 'world-formula').

Detailed Descriptions

Previous mentioned movements of wandering Potential-Vortex-Clouds could only be described in general by few examples. Each of these (and further) appearances are detailed by new parts and many new chapters. Finally here were mentioned some examples of motion and rotation of material bodies, which are only secondary occurrences of aether movements. Also these subjects of 'classic physics of material world' demand further detailed descriptions by separated sections.

Nevertheless some readers already got sufficient stimulations for developing own ideas to their special subjects, based at the real aether-continuum and its inevitably resulting motion-pattern and occurrences.