

02. Universal Movement

These chapters were published in 2003. These chapters were reviewed in 2015 and reduced to relevant statements.

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| 02.05. | <u>No Standing Waves</u> | Prerequisites rarely exist in space. |
| 02.06. | <u>Spiralcluster</u> | Basics of movements of Free Aether
This is the most important chapter of this section. |

02.01. Basis and Objectives

Starting Basis

At previous part 01. Introduction to the Aether-Physics and -Philosophy was worked out, it's strongly to differ between real certain knowledge (and terms for naming these facts) and pure abstract terms (for logical handling and for communication). A theory may only be founded at real facts and (unspoken) further assumptions are to avoid.

By this understanding, as real certain knowledge is only valid, there is something existing and there is movement existing. This Something here is called aether and lastly only the ether can be in motion. The aether is single real substance, all other appearances are only the result of various aether movements.

As decisive criteria was worked out, the aether indeed is real a continuum. This means, the aether by itself is not build up by parts, but universe-wide it's one coherent substance. The aether is completely gapless and undividable, so the aether is neither expandable nor compressible.

Most limited possibilities

Naturally, the number of possibilities for movements is rather limited by these criteria. So at the following, at first is shown which aether movement possibilities are not allowed - practically all we know of the common material world.

At sciences, many affects are only named by abstract term of 'field', nevertheless (mostly unspoken) certain movements are assumed. Also these models of movements are not possible at the level of the aether.

However, it's just that limitation which creates the essence of nature-laws (like any law is a restriction of all theoretical unlimited possibilities). The strong ordered behaviour of the

nature couldn't exist by the voluntary movement possibilities within a world-of-parts, but it's determined by extremely restricted facilities of only one substance (aether) and its most restricting property (of indivisibility).

Universal

No doubt however, there is motion within the aether. Multiple kind of movements must really exist, so numberless most different occurrences are resulting of. On the other hand, there must exist one common basic kind of movements, of which other movements are deducible.

This movement must also exist there, where 'obviously' no material occurrences exist resp. 'no' physical forces are working - far outside at 'empty' space. The movement pattern there - like anywhere - is called Free Aether resp. here is named 'universal movement'.

This motion can not be a simple one, otherwise one would know a major axis or a centre within the space. This basic movement must be 'holistic', must turn around many axis resp. must show multiple centres. At earlier workouts, I called this kind of movement 'spiral clusters' with motions are un-repeated processes, nearby 'chaotic'. The criteria of this movement pattern are spiral tracks, around tumbling axis, steady varying turning points and radius and speeds. Most adequate picture of these movement tracks might be the band of DNA.

Finally at later chapters I recognized, the chaotic motion of the Free Aether simply results from the multiply overlays of all radiations razing through the space. The distances of these motions thus will be rather short. In comparison, the 'coarse-matter' appearances of the Bounded Aether are long distance motions, e.g. from the size of the electron up to galaxies. However, at the following chapters at first must be excluded all shapes of motions not possible within the aether.

02.02. No Shockwaves

Longitudinal Waves

Easy to understand and well-known shape of waves are these like the sound spreads. Molecules of air are pushed, locally compressed, this 'pressure-wave' runs through the air, until an ear registers the sound.

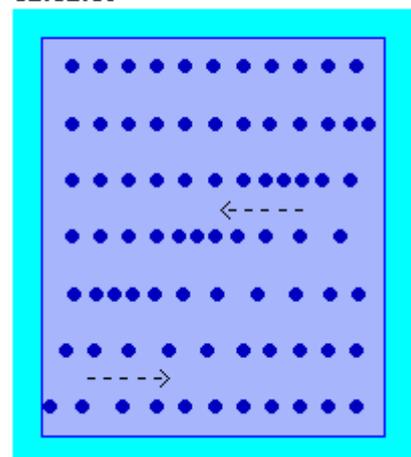
Characteristics of longitudinal waves (resp. shockwaves) are, the parts are swinging into spreading direction, i.e. the parts are forward accelerated, afterwards they come back to their old position. The speed of sound differs depending on medium.

Example Sound

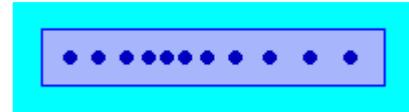
At picture 02.02.01 schematically is shows a section of a medium (e.g. gases or liquids) and some parts within are marked (linearly arranged, in reality molecules naturally would be in chaotic motions). At upper row, same distances represent normal spreading of molecules.

If a source of sound produces an additional motion from right side, a pressure front (marked by positions of parts more narrow) will move from right to left through the medium (as marked by the arrow upside). Afterward the compression of the medium will disperse, i.e. the parts will swing back again to right side (as marked by the arrow downside), until lastly the starting situation exists again.

02.02.01



So, an area of higher density (moving through space) is followed by an area of less density, until lastly the differences of pressures are equalized again. At this animation, this movement process is visualized: one (sound-) movement from right to left is followed by second balancing movement back to right side.



Only at Level of Parts

This kind of movements demands the existence of gaps between the particles respective demands a compressible medium. At least there must exist some elasticity of the material, so parts can swing like shown above, e.g. by spreading of sound within solid bodies.

The aether however is a gap-less and part-less substance, no 'aether-parts' swing ahead and back, there are no areas of more or less density, there is no elasticity (by previous understanding) within the aether substance.

So the shape of longitudinal waves is impossible within the aether. This kind of waves only are possible as occurrences of the material world (like previous molecules of fluids or stable bodies) resp. these waves are restricted to the materia of parts. Within the medium of aether however, this kind of movement is not allowed.

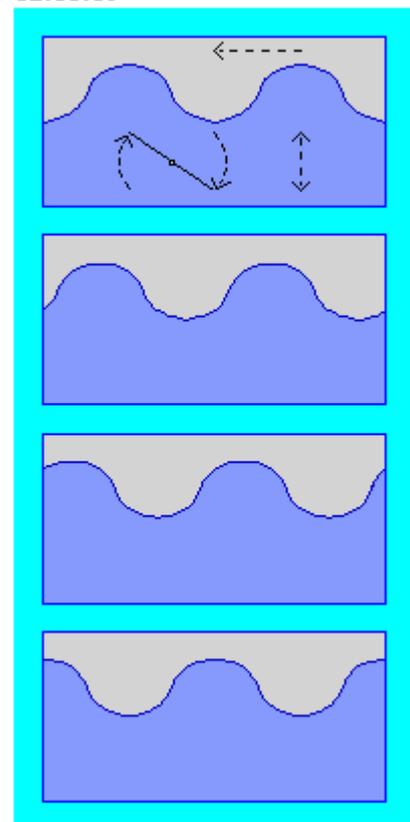
02.03. No Crosswaves

Transversal Waves

Second well-known shape of waves is the circled spreading of waves at a water surface. This movement e.g. is started if a stone is thrown into the water. The water below of the stone is pressed downside, compensated by waters aside moving upwards. Upward directed stone-movement also takes upward the neighbouring parts of water further outside (at larger distance to centre of waves).

Based on gravity, afterward this hill of water falls down (deeper than the normal level of the water, based at its kinetic energy of the falling motion), thus again it's moving up the waters aside of. The ring-shaped water-hills and -valleys thus wander outwards (radial to the wave centre). Based on friction within the water-medium, finally the differences of levels will decrease, i.e. the swinging motion will fade.

02.03.01



Characteristics of these cross-waves (respective transversal-waves) thus are, the parts swing cross (here up and down) to the spreading direction (radial outward from the centre). The motions up and down are accelerated and decelerated again between 'dead-points' of movements.

Example water waves

Picture 02.03.01 schematically shows a section of a water tank with simplified marked waves at the surface. Right side of this picture, a wave motion could be initiated by the stone above. The wave (hill like valley) moves from right to left side (marked by arrow upside). Three more phases of motion are drawn below. The animation below visualizes this process by some moving pictures.

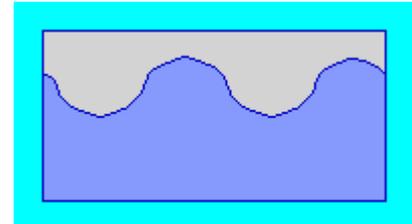
The movement cross to the spreading direction is marked by vertical double-arrow. If one valley and one hill is regarded same time, the motion could also be looked as a rocking motion (marked by up- and downward swinging seesaw).

No Dead Points within the Aether

These movements are well known by the mechanics of solid bodies and the water-particles here behave analogue to movements of solid bodies. Above this, transversal waves (e.g. Hertz-Waves of electro-magnetism) are a common shape of waves. However within the aether by itself, movements like these are impossible - because the aether don't allow dead points.

All aether is in steady movement. As everything with anything is coherent, there can't be any 'portion' of aether without motion. In addition, there are no separated 'components' of aether, that e.g. could do these abruptly changing of motion directions (change of up and down). Within the ether, only continuous movements are possible.

At these water's movements, indeed any motion is 'dead' at upper and lower point. The motion is not finished in total, because the gravity is affecting, levelling potential energies of heights. These 'gravity-forces' however, at the final end, lead to death of all movements - when waters rest silent again.



No Heat-Death

The known considerations about the 'heat-death' of the universe are quite consequent. Within the material world is nothing done without spreading- or friction-losses. So finally, all movements are levelled down to most low common level. So at the area of material world, indeed energy can be 'destroyed' as opposite directed forces are resulting to null.

Opposite to that point of view, the universe appears really creative by steady production of diversified structures (and thus building up energy-differences). That's a clear approval for the fact, the substance of the universe can not be build up by particles, but the aether must show properties quite opposite to these of the material world.

If the amount of energy within the universe should at least be constant, so this matter of fact can only be founded at 'unusual' properties of the universe-wide aether. Only by it's property of gap-less-ness, no single motion can 'get lost' or can compensate to null.

. As within the aether nowhere a standstill can exist, within the aether no transversal waves (with periodic standstill) are possible (also not by additional turnings, see next chapter). 'Aether-Waves' show much more complex shape (like discussed at further chapters).

02.04. No Circle, Straight Line, Torus

Linear Movement

Movements in straight direction are everyday's experience by the handling of solid bodies like at processes of many machines. At picture 02.04.01 for example, a 'Boxermotor' schematically is shown at which two pistons move linear within the cylinders (accelerated and decelerated like the stroke movements of water waves above).

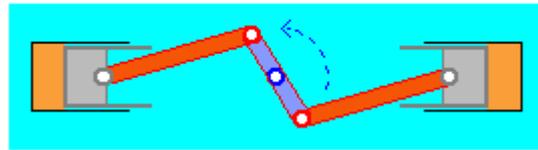
Materials are moving relative to each other at surfaces between the pistons and cylinders. However, just these border surfaces are not available within the aether, because the aether is 'border-less' (internal) universe-wide. So no aether-portions can shift alongside each other, and not linearly by guarantee.

Fluids exist of particles and between 'flux-bands' exist border-faces, so movements in different direction or of different speed can glide alongside each other. Also the aether is 'soft' like gases or liquids and motions within the aether well are possible, even without friction losses. Opposite to fluids however, the aether is a real continuum and thus does not allow such relative movements between neighbouring particles at border-surfaces.

Circled Movements

This example also shows a circled motion as the central crankshaft (blue) is turning around the system axis. Naturally also there are border faces moving alongside each other, e.g. the outer end of that crank versus the surrounding area (here air or oil, like at any turning wheel). Above this, an other essential point of view is demonstrated by this example.

02.04.01



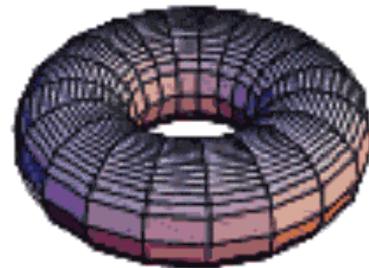
Whenever a body is moving at a circle track, the motion steady is changing the direction. Here e.g. upside left), the 'masses' must be shifted aside (like the connecting rod (red) via piston presses the air to left side). This process occurs at both sides of this boxermotor, in principle however at each direction around the centre of circled movements.

Same fact is valid at the aether, however the circled movements have not to kick-off only (light) surrounding air, but all around is the aether of same 'hardness'. So whenever an aether point (remember: mental unit instead of not existing real ether-parts) is moving at a circled track, same time other aether points must be moved aside (analogue to mechanical example of connecting rod above). However, nowhere are 'free gaps' for immediate storage of surplus volumes of aether. That's why these simple circled movements (at even level) are not allowed for the aether by itself.

Outside-inward

Often are discussed movements in shape of a torus (general design is shown at picture 02.04.02) as an alternative model of atoms or as carrier of energy etc.. Indeed, the combination of movements around the central axis of system plus the movements around the (round) axis within the ring results most interesting movement pattern.

02.04.02



Mostly well-known smoke-rings are presented as clear example, by which e.g. a candle is blown off at some metres of distance. The motion medium here is the invisible air and within that air-vortex the visible smoke-parts are enclosed.

The aether-medium however can't move that kind, because no aether volumes can be pressed through that central small hole (in order to expand later). At that torus, the border surfaces are shifting alongside each other. However the aether-continuum has no internal borders at all.

At the level of material occurrences, movements at circles or straight lines or outside-inwards etc. are well possible, however such motions are not possible for the aether by itself. The aether is not only a 'materia a little bit different', but is the unique real existent substance with unique properties. The aether has to be quite other kind, e.g. may not show the possibilities of movements like any 'vulgar' materia.

02.05. No Standing Waves

Blackbox

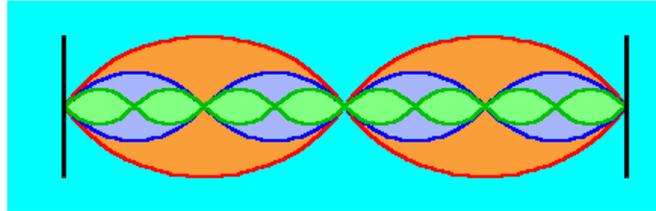
Physicians often abandon concrete explanations of physical occurrences (for example of electric respective magnetic forces or gravity) and work with 'dummy-term' of fields. Nevertheless, the forces of fields are calculable by known formula (and so far the abstract term is useful), however the essence resp. the real background of these occurrences remain unexplained.

As a 'blackbox' even less precisely defined, often is used term of 'standing waves'. For example, electromagnetic waves are described as existing of fields, above this however and in addition a 'standing' wave demand certain prerequisites (mostly not defined or not spoken about).

Technical Application

Standing waves technically are used in many applications, effects were achieved, which otherwise wouldn't be possible. However, the installation and continuance and usage of standing waves are bound to very narrow parameters.

02.05.01



At picture 02.05.01 schematically is shown as an example, how three waves could be build up standing 'in space'. Inevitably necessary is the arrangement of mirror surfaces (black vertical lines) exactly positioned corresponding to the wave length. If the distance is a multiple of the wave length, 'standing nodes' come up (like at this picture). If the distance is an odd multiple of the half wave length, the wave is mirrored completely. Above this it's absolutely necessary, the mirror surfaces are exactly right angled to spreading direction of the waves.

So standing waves can exist only by directed radiation of a certain frequency in relation to exactly adjusted mirror surfaces. If these conditions are not given, no standing wave will result but just normal jumbled reception (German 'Wellensalat' which means 'wave's salad'). Concerning the technical realisation, these demands are fulfilled without problems by many units (i.e. at systems more or less closed) and the wanted effects are achieved.

Natural Realities

However, standing waves meanwhile are also assumed to be responsible for occurrences within the 'free nature', i.e. within open systems respective at no laboratory-like conditions or at circumstances not fixed by mechanical equipments.

For example, some explorers assume standing waves as source of gravity. Other physicians assume the electrons around the atom nucleus being standing waves. Lastly, the (unsuitable) theory of global scaling was based on the existence of standing waves within whole universe. There are more ideas of other scientists, assuming standing waves as source of many occurrences.

In my opinion, many of these considerations don't care about demanded prerequisites (transmitter, frequency, spreading direction, mirror surface). For example, at wide space these prerequisites merely exist (wandering transmitters, irregular frequencies, distorted spreading, meanwhile reflected radiation, not resting or not right angled mirror surfaces etc.).

So standing waves of natural sources can not exist within the aether of the universe wide space and especially not near to celestial bodies. Nevertheless all technically used standing waves naturally are lastly based on aether movements.

Mirrored by Nothing

Just this problem of mirroring demonstrates the confusion of understanding. At the one hand one thinks by abstract fields, on the other hand one assumes ideas of mechanics (by inadmissible analogy). So there is assumed on and on (or even unspoken), waves could be mirrored at 'diluted areas'.

Most simple mechanical example of a waves can be build by a rope. Swinging movements by the hand are done at the front end of the rope, while the rear end is fixed at a wall. It's quite easy to produce standing nodes.

This picture of a wave (by some skill) is also to achieve, if the rear end is loose. The wave runs through the rope - however it does not come back by mirroring, but because the hand at the frontside end affects a remarkable pulling forces. If also the front end would be loose, the wave would run out of the rope at the rear end and never ever would come up standing nodes.

So it's only the stability of the rope and the pulling hand, that makes the wave run back again, even the rear end is a 'vacuum'. At (electromagnetic) waves of abstract fields however is just negated any medium would be involved (capable to take pulling forces). This mixing-up of abstract terms (inclusive negating a concrete medium) and experiences of the mechanical world (with only partly fitting analogy) inevitably results insufficient understanding.

Demanded conditions for building up stable existence of standing waves, thus at the universe are not given. The following chapters however will show an alternative 'standing wave' omnipresent without spreading nor mirroring.

02.06. Spiralcluster

Local Movements

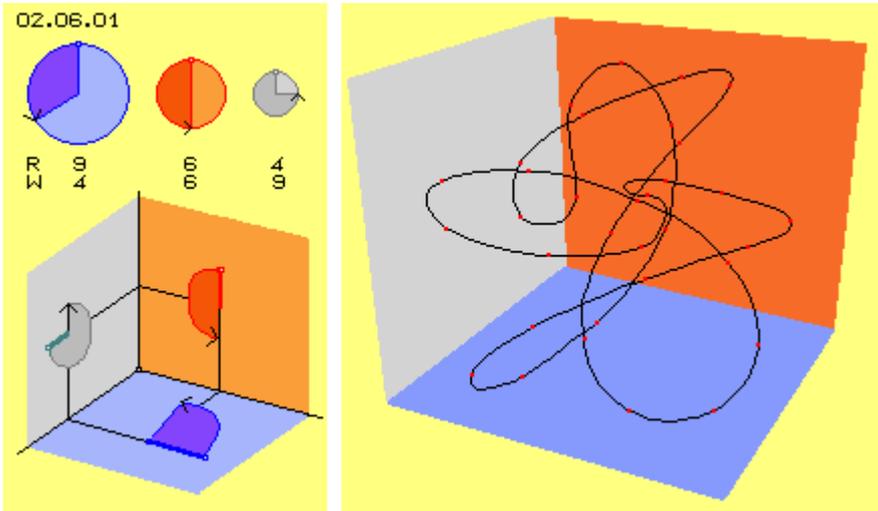
At previous chapters were excluded these movement shapes which are not possible within the aether substance by itself. There are no aether portions that could move relative to others, neither as longitudinal nor transversal waves, neither purely circled nor straight linear, neither outside-inward nor by standing waves.

Movements of that kind are only possible at material level of occurrences. The clear differing between movement possibilities within the aether versus these of the aether occurrences is essential, because it's inadmissible to transfer experiences of the material world by analogy (or unintentional) onto the quite other conditions which are valid at the quite different substance of the aether.

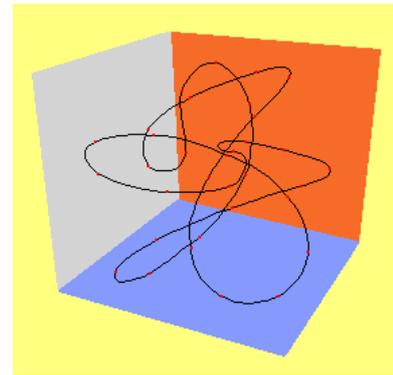
Naturally exist previous waves and circles, straight and twisted movements and also standstill within the world of material occurrences. However, these are secondary appearances, here called 'local movements' and described at following third part. Here at first however, the universal movements of the aether must be discussed.

Universal Motion

As a background for all local ordered motion pattern, the Free Aether must be swinging within itself. The motions of the Free Aether are resulting from so many overlays, so its tracks show rather chaotic. Picture 02.06.01 shows a first impression of these 'spiral-cluster-tracks'.



movements with different radius (R) and different angle-speed (W) are overlaying each other by right angles. An aetherpoint within that space will run at the resulting track shown right side at this picture. The animation visualizes the progress of that motion-mixture.

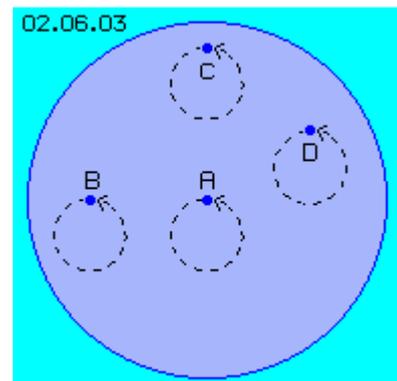


After each short section, the track is turning into an other direction. The turning-radius is steady varying and also the speeds are changing at the merging sections of the track. The turning-axis is 'tumbling' within the space. Instead of previous fictive example of three circling motions, in reality many radiations of diverse kind are racing through the space into any direction and are crossing at every spot within the aether. As a whole, the resulting motion within the aether appears chaotic, nevertheless its only the summary of each single ordered motion pattern of electromagnetic waves. Suitable instruments well can sort out a hidden swinging pattern from that 'jumbled interference'.

The aetherpoint observed keeps its local area all times. Even its running around at confusing tracks, finally it comes back to its starting place. So that motion-cluster might really represent a 'standing wave' within the space. Pattern like these might reach far out and be long lasting, so they determine e.g. all movements within a galaxy. A 'stroke component' for example builds the regularity for the revolutions of planets around the Sun. At the other hand, a local area of the aether takes the tiny motion pattern of a photon only for a short moment.

Synchronous Swinging

At previous pictures an aetherpoint was observed which is moving at three circles same time. The aether is a coherent whole, i.e. each aetherpoint is bound to every neighbouring aetherpoint without any gaps between. If previous aetherpoint is moving at his track, all neighbouring aetherpoints are forced to move parallel at similar tracks.

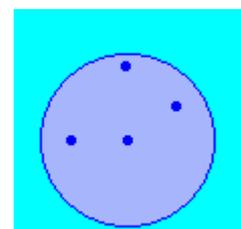


Picture 02.06.03 shows a simplistic example. An aetherpoint A is moving at a circle track. An aetherpoint B at left side must move synchronous around his own turning centre. Analogue must move the aetherpoint C some above and the aetherpoint D right side. At these 'swing-motions' (opposite to the term of 'rotation') thus a neighbour left side keeps left all times, a neighbour upside of keeps above, a neighbour of right side keeps right.

That's the essential difference between the rotating motion of material particles and the swinging motion within the aether: at a rotating wheel, all parts are turning around one common fulcrum. Here within the aether, each aetherpoint is turning around its own fulcrum, synchronous and parallel to its neighbours. During these swinging motions, the distance between all aetherpoints keeps constant. The aetherpoint are never gliding at border faces alongside each other. The animation shows not only the four marked aetherpoints are moving parallel but the whole area of aether is swinging likely.

Unlimited far or locally concentrated

Such areas can be huge, e.g. far like the Milky Way or the Sun system. However, also there the aether does not rotate spacious around one center. Also within these 'whirlpools' the aether is swinging at an only narrow space. Only a common characteristic of motion (the 'stroke component') is pushing the motion-pattern of all atoms forward within the aether whirlpools. Only by that effect comes up the (illusionary)

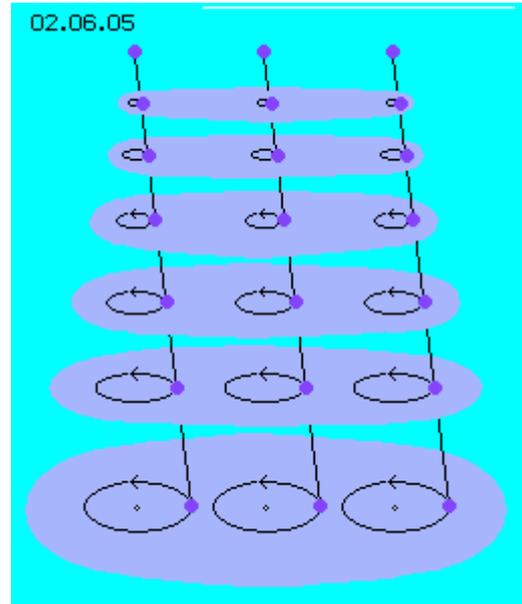


impression, material celestial bodies would rotate around the galactic center and around the Sun (details are discussed comprehensive at later chapters).

If indeed all aether is coherent everywhere without any gaps between, theoretical such swinging aether areas must reach from one end of the universe to the other end. In addition, also upside of and below of that swinging disc, all neighbouring aetherpoints must move synchronous. Thus the whole universe must swing likely. That might not be true, i.e. it must be possible the swinging motions are concentrated to a limited area.

Picture 02.06.05 again shows a simplistic example. Below is a swinging area where three aetherpoints are marked. The circle-arrows mark their circling motions. All neighbouring aetherpoints aside of and thus the whole aether-disc is a swinging area.

Upside at this picture are marked three 'resting' aetherpoints, standing stationary within the space. The connecting lines from the upper to the lower aetherpoints represent all neighbouring aetherpoints between. If the aetherpoints below are moving at each circle tracks, all aetherpoints of these lines must also move at circle tracks. However, towards upside the circles show each shorter radius. The intensity of the swinging motions thus decreases from bottom up. Nevertheless, all involved aetherpoints still keep mutual constant distance (what's inevitable characteristic within the gapless aether).



If this arrangement is mirrored downward, a swinging layer of aether is enclosed upside and below within layers of stationary aether. This kind of motion shape e.g. show the spiral galaxies. Even they are far extended, they build relative thin discs. Also our planets are moving within the thin plane of the ecliptic, so also the whirlpool of the Sun shows a flat lenticular shape. Each rotating planet, also the earth, is embedded within a swinging aether disc, identified by the tracks of moons. These discs also exist most frequent at minimum size: each photon is a flat disc and its motion pattern 'screws' spiral forward through the aether.

Upside at picture 02.06.01 are overlaying only three circling motions at right angles. Resulting are swinging motions into all directions. Each of their motion components can be reduced towards outside, analogue to previous picture 02.06.05. So local motion units can not only be flattened into one direction, but can be diminished towards outside all around. At the ideal shape of a sphere, the internal motions are merging towards outside into 'resting' aether all around. Most frequent occurrence of a perfect motion-sphere is the electron. Also the most frequent chemical element of hydrogen shows a similar shape. The atoms more complex are mostly no units of perfect sphere shape because their internal swinging motion are most differing pattern.

Universal

The basis of all appearances is the anywhere likely aether as it's the universal medium of global and local swinging pattern. At any place of the earth, for example, most different 'information' is stored in shape of certain real motion components: the regularity of 'material' motions within the Milky Way and within the Sun system. A special motion component causes the (seemingly) rotation of the earth. We don't feel anything about these movements, because the motion pattern of all atoms (naturally also of our body) are pushed forward likely within the aether-space. Opposite, we can feel an other swinging pattern, pushing all atoms

towards the earth center. Same time, the aether is overlaid by the photons of the light and many other radiations we can not feel nor register directly. So as a whole, the motions within the aether are mixed up by an 'incredible' scope.

A most important characteristic is the fact, the local motion-units are embedded all around within the 'resting' Free Aether. However, there are never sharp borders but only a smooth transition of balancing motions. Also the atoms have no clear borders. If atoms build ordered assemblies, e.g. crystals, also that additional order radiates into the neighbouring areas. Some atoms are radiating by itself with quite 'material' consequences, thus naturally also these motion patten must be manifested substantially.

Naturally all living being are surrounded by an 'aura'. Even materialists can not ignore the charisma certain people radiate. The brain-scientists are searching the areas where memory and intellectual capacities are located and done by chemical or electromagnetic processes. An especially nebulous appearance is the consciousness. Even stranger appears the subconscious with its facility to receive and handle much more information than the knows senses and the brain. There is no corresponding 'material' organism known. We western people got extreme ego-centric, so a 'group-consciousness' comes up only within arenas with artistic or sportive performance. Some times to 'grasp by hands'. Up to now one can not imagine how some species achieve incredible performances by 'swarm-intelligence'. At all these different cases: where are the data stored and how can these individual units take the information?

Some people are conscious prevailingly to be a spiritual being. For some it's quite natural to be an immortal soul. For me it's quite natural, all these items can not only be anyhow nebulous and can not take place only at any abstract dimensions. Here and now, the omnipresent aether has sufficient capacity for taking also the whole variety of mental and social and spiritual appearances of any kind and time. So it's my intention, these researches might be done with concern to the substantial basis in shape of this aether.

It's relative easy to demonstrate, the 'simple' appearances of material-physical world are based at that concrete primary matter. The nature-sciences would have great potential for development, if only replacing the fictive vacuum by the real substance of the aether and researching the diverse motion-pattern within.