

A different view on the nature of physical phenomena

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ABSTRACT

This paper presents a fundamental particle $L^{\wedge}S$ in the form of a "plum pudding J.J." blank, all of whose properties reflect the basic physical phenomena of nature, as well as its evolution from the source of formation.

KEY WORDS

fundamental particle, ,electromagnetic wave, gravitational quantum, atomic structure, neutron

DESCRIPTION

I. Formations

We will consider the increasing, limited action of the pressure forces of the **HII** and **HI** regions on their boundary in the interaction of their thermal environments $(TE, TP)^+$ and $(TE, TP)^-$: the values of their temperature **TE** and pressure **TP** .

These may be areas of the location of "Globules" or areas from the manifestation of the actions of intense flows - emissions, in the nuclei of active and ordinary Galaxies .

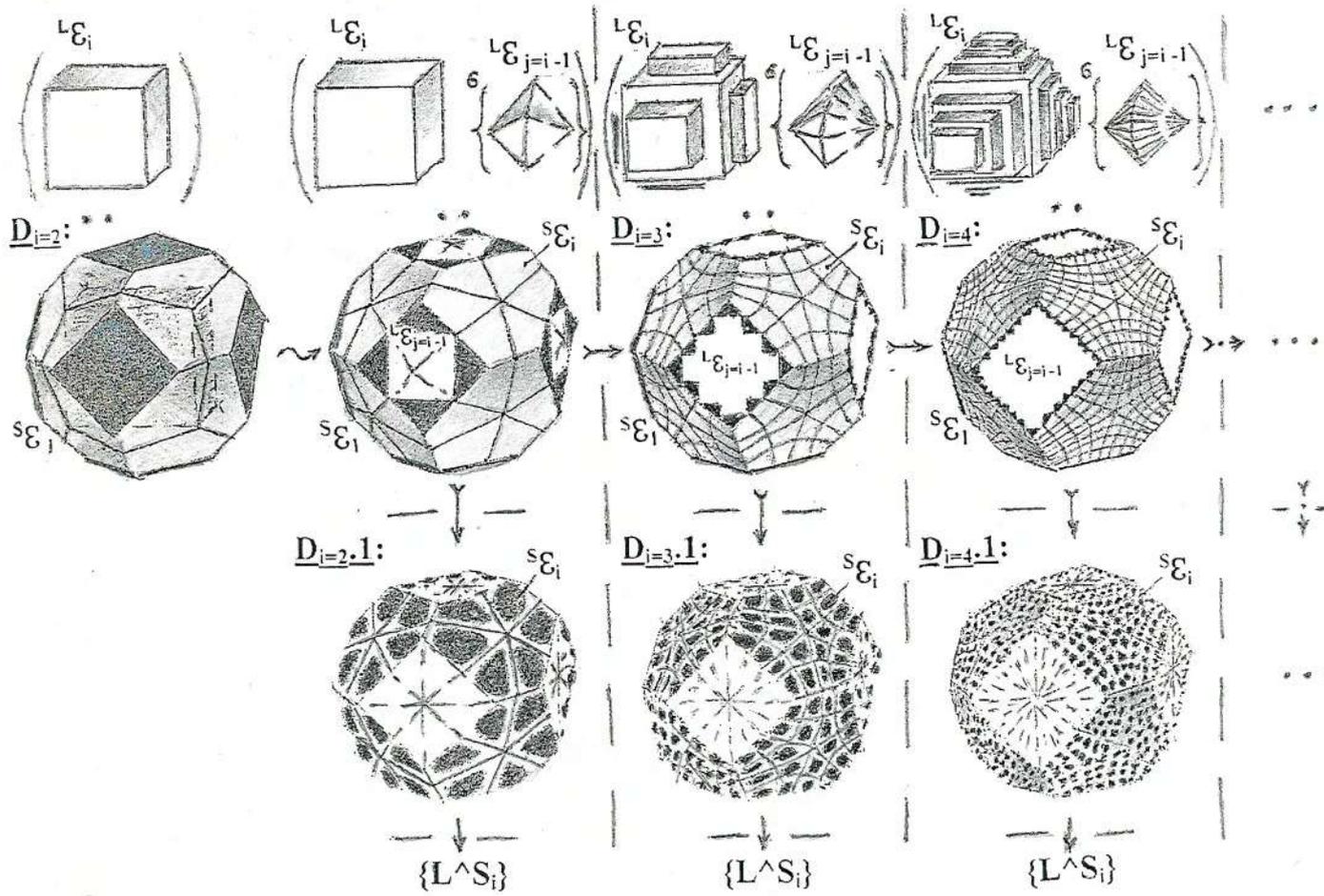
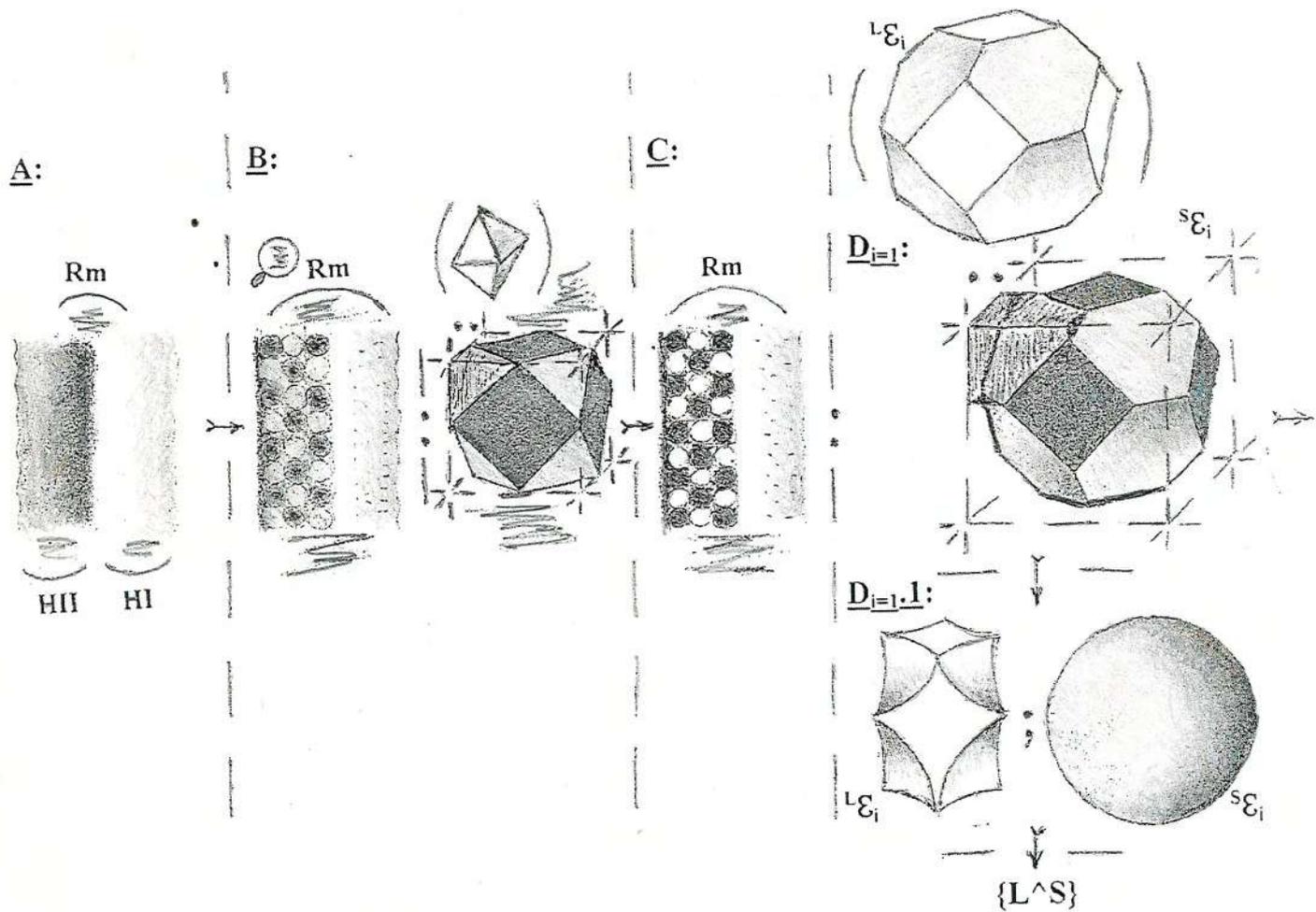
This action highlights new formations (**Rm**) , for example, dense nebulae of " Rims " on the border of "Globules" , with their additional compaction by compression and rarefaction by stretching, forming the degree of action of reaction forces.

There is a "threshold level of strength" of this formation: $(TE, TP)^{\oplus}$; $(TE, TP)^{\ominus}$, equivalent in its direct and inverse proportionality to the value $|c|$, from which deformation "cracks" are formed in this formation, by means of adjacent "mixing elements" formed from them in the places of its compression.

This is exemplified by a fragile vessel that cracks from the cooled liquid poured into it and continues to undergo "compressible fragmentation", depending on the degree of cooling received .

The consequences of this deformation lead to the destruction of this connected "element-by-element" formation and the formation of particles from them: upon reaching equality of the action of the reaction forces in them with the action of the forces of the pressure in question, with subsequent deformation by "rounding" the shapes of these "mixing elements" as a result of their reaction forces, or to the subsequent, renewed process of their "fragmentation" from the current state .

Let us demonstrate and describe this entire process in the routes of passage of "cracks" with the formation of particles from the specified formation :



The fig. **A** schematically shows the "Globule" region of regions **HII** and **HI** from $(TE,TP)^+$ and $(TE,TP)^-$ with the formation **(Rm)** highlighted.

As their values approach $(TE,TP)^+$ to $(TE,TP)^\oplus$ and $(TE,TP)^-$ to $(TE,TP)^\ominus$, the "contours" of the "mixing elements" on the compressible boundary region **HII** in **(Rm)** begin to appear in it (**Fig. B**).

And upon reaching $(TE,TP)^+ = (TE,TP)^\oplus$ and $(TE,TP)^- = (TE,TP)^\ominus$ they will already form these connected elements (**Fig. C**), S_{E_i} and L_{E_i} , the image of which is shown in (**Fig. D_{i=1}**).

Their "non-rounded shapes" are a consequence of the "delayed" reaction of the forming **(Rm)** to the pressure under consideration.

Further, if the reaction forces of the resulting formation **(Rm)** have not reached the forces of the pressure in question, then this process will be resumed in continuation from the current position (**Condition I**):

$$D_i \rightarrow D_{i+1}$$

, otherwise, at a certain stage (**i**), it moves to its final stage – the formation of particles (**Condition II**):

$$D_i \rightarrow D_{i.1} \rightarrow \{L^{\wedge}S_i\}$$

More details .

At stage **D_{i=1}** the resulting formation **(Rm)** will consist of connected elements $\{S_{E_i}\}$ and $\{L_{E_i}\}$ in their "compact" mixing.

And at its final stage – the fulfillment of **Condition II** (**Fig. D_{i=1.1}**), the connections of the elements $\{S_{E_i}\}$ are broken as a result of their "rounding" by the force of their reaction: since the "balls" they receive lose their connections .

The disintegration of elements $\{S_{E_i}\}$ within their "coatings" and rotational structural formation of particles $\{L^{\wedge}S\}$ occurs.

And the fulfillment of **Condition I** leads to further deepening of deformation "cracks" (**Fig. D_{i=2}**) with the formation of new – level (**i**), "mixing elements" S_{E_i} and L_{E_i} ; $L_{E_{j=i-1}}$ - adjacent to $\{L_{E_1}\}$, in S_{E_i} starting with the manifestation of their "contours" in approaching their final stage .

Cubic and Octahedral images of the elements L_{E_i} and $L_{E_{j=i-1}}$ are the result of the resultant forces $\{L_{E_1}\}$, and the images $\{S_{E_i}\}$ are a "mesh" from the result of their "fragmentation" along these "edges" of the route during their own "compression".

Completion of stage **D_{i=2}** - completion of the formation of "mixing elements" occurs when the values of the quantities $(TE,TP)^\oplus$ and $(TE,TP)^\ominus$ from the formed elements $\{S_{E_i}\}$ and $\{L_{E_i}\}, \{L_{E_{j=i-1}}\}$ reach the following "threshold strength level": $(TE,TP)^\oplus = (TE,TP)^{\oplus i}$ and $(TE,TP)^\ominus = (TE,TP)^{\ominus i}$.

If **Condition II** is satisfied, then the transition to **D_{i=2.1}** – the formation of particles – will be performed $\{L^{\wedge}S_{i=2}\}$ of this (**i=2**) level, otherwise the transition to a new – next, level will be performed: $D_{i=2} \rightarrow D_{i=3}$.

And the cyclical process will continue : $D_i \rightarrow D_{i+1}$.

The newly formed elements $\{L_{E_i}\}, \{L_{E_{j=i-1}}\}$ represent a "scattered symmetrical growth" on their previous levels from the result of their resulting forces, and the images $\{S_{E_i}\}$ will represent a "grid" from their "fragmentation" along these "faces" of the route in their own "compression".

We obtain a complete picture of the chain of formation of specific "level" - (i), particles $\{L^{\wedge}S_i\}$ (reference : $L^{\wedge}S_{i=1} = L^{\wedge}S$).

The structure and properties of the "level" particles after $\{L^{\wedge}S\}$ remain "open" in the description .

And the existence of discrete "threshold strength levels" is based on the existence of its first, the existence of which is based on the formation from it of functionally normalized particles $\{L^{\wedge}S\}$ with discretely manifesting properties.

Let's move on to the description of the particle $L^{\wedge}S$.

1. Education.

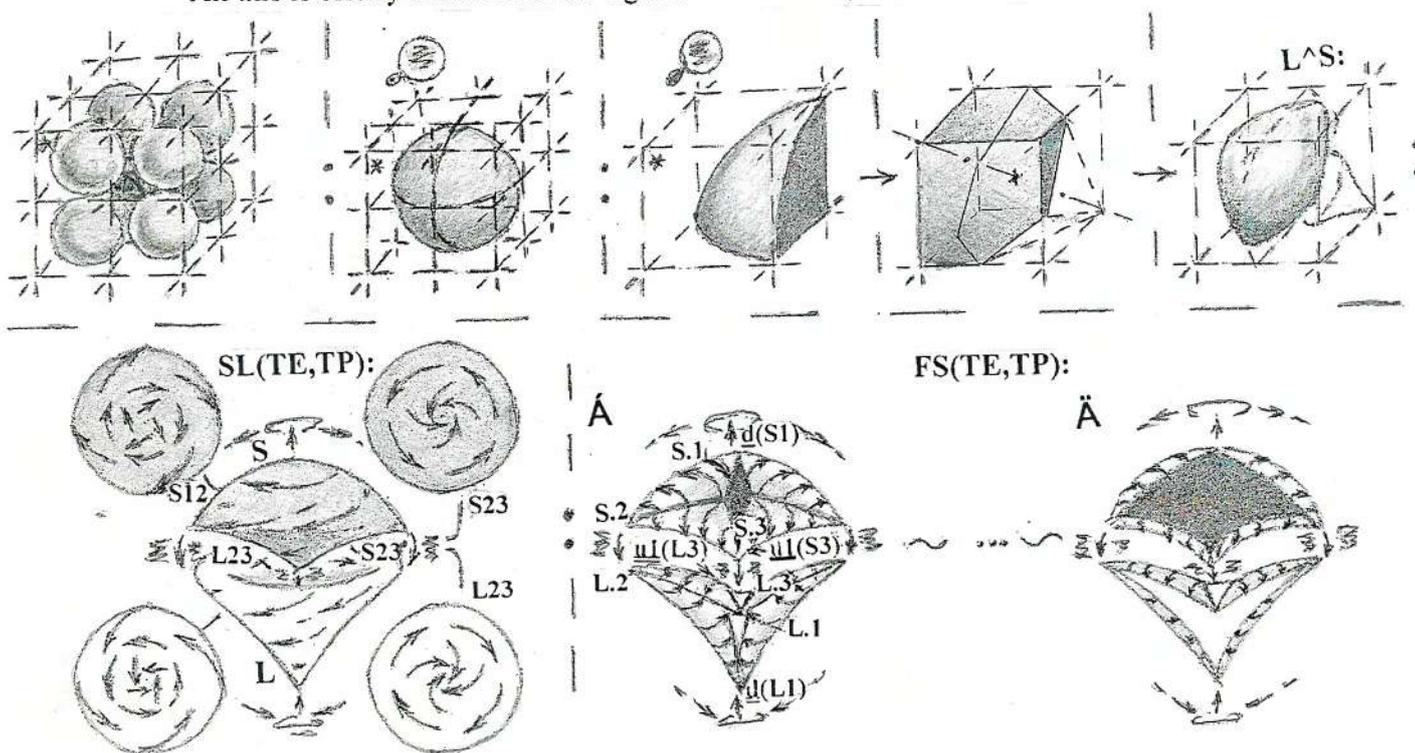
As already indicated, the disintegration of the "balls" $S_{E_{i=1}}$ occurs within the boundaries of their "coverings" with increasing concentration $(TE,TP)^{\oplus}$ in their adjacent vertices and rarefaction $(TE,TP)^{\ominus}$ in their center.

This leads to the rotational structural formation of elements S - "proton" and L - "formative" from these "fillers" in a quadratic normative value from them (which determines the decay characteristic $S: E=mc^2$).

Their structural appearance was determined by the reaction of this decay.

And it can be constructed logically.

All this is briefly reflected in the figure:



Here is presented the "complete" (\hat{A}) structural image of the particle $L^{\wedge}S$ with the expansion of its homogeneous "clot" of axial form to the maximum position - the "compact" (\check{A}) variant.

These forms and their intermediate variants are equivalent to each other in their outgoing axial structural continuity and the result of the action, so any of them can be used.

2. Structure of elements.

The structure of the elements S and L was formed in the axial rotational compression/rarefaction of their fillers along the diagonal – the center of the "source" and the top of its covering, thereby forming their "layer-by-layer" images $SL(TE,TP)$ in the "skeletal" from $FS(TE,TP)$.

The "layer-by-layer" structural image of the elements was determined by the process of their axial rotation during formation, and the "skeletal" one by their compression / rarefaction and is reflected along the axial cut of the previous one.

The type of formation of elements is formed by symmetrical axial forms: S.1; S.2; S.3 and L.1; L.2; L.3, their structural directions in the "skeletal" image, open – by gap, at the boundaries and "special" points of their "layered" structural surfaces: S12; S23 and L12; L23, with power images: from almost round – in the initial sections, with a transition to a pronounced spiral - in the final sections.

These intermittent sections: S1; {S2}; S3 and L1; {L2}; L3, with their open, ongoing structurally "polar" actions – "quarks": \underline{d} ; $\{\underline{u}2\}$; $\underline{u}1$ and \underline{d} ; $\{\underline{u}2\}$; $\underline{u}1$, and determine the contact - interaction, of their elements through the environment – having previously completed their formative transition into it, thereby showing their "activity".

And the interaction: \cup , of these elements: S with L, and determine the particle $L^{\wedge}S$:

- $\underline{d} \cup \underline{d}$: through S1 and L1 from the outer surface of the elements;

- $\{\underline{u}2\} \cup \{\underline{u}2\}$: through {S2} and {L2} from the boundaries of the surface of the elements;

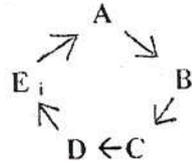
- $\underline{u}1 \cup \underline{u}1$: through S3 and L3 from the inner surface of the elements.

The distance arrangement of interacting particles S and L in $L^{\wedge}S$ is determined by the structural distinctiveness of their interacting "quarks" and depends on the state of the environment.

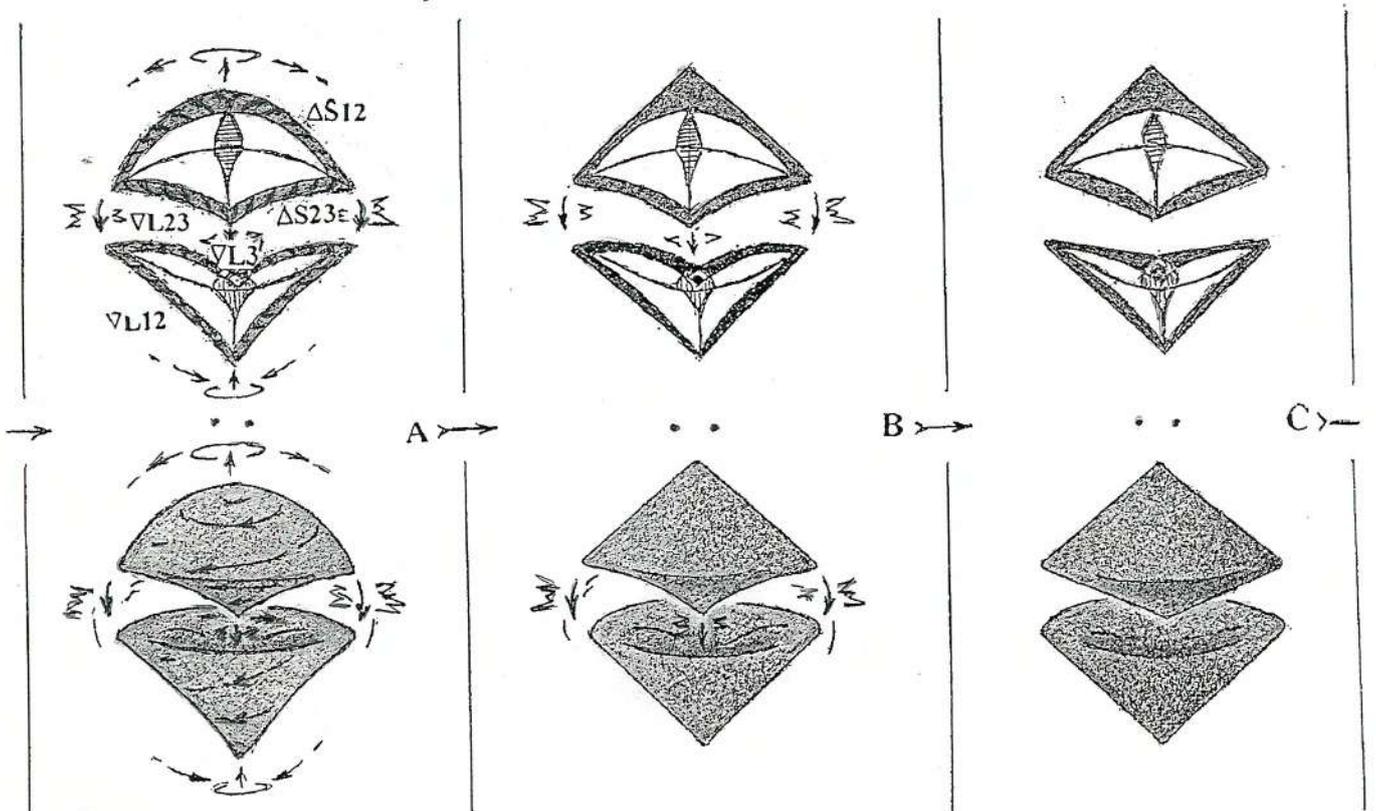
And in a free state the particle $L^{\wedge}S$ represents a hydrogen atom – H.

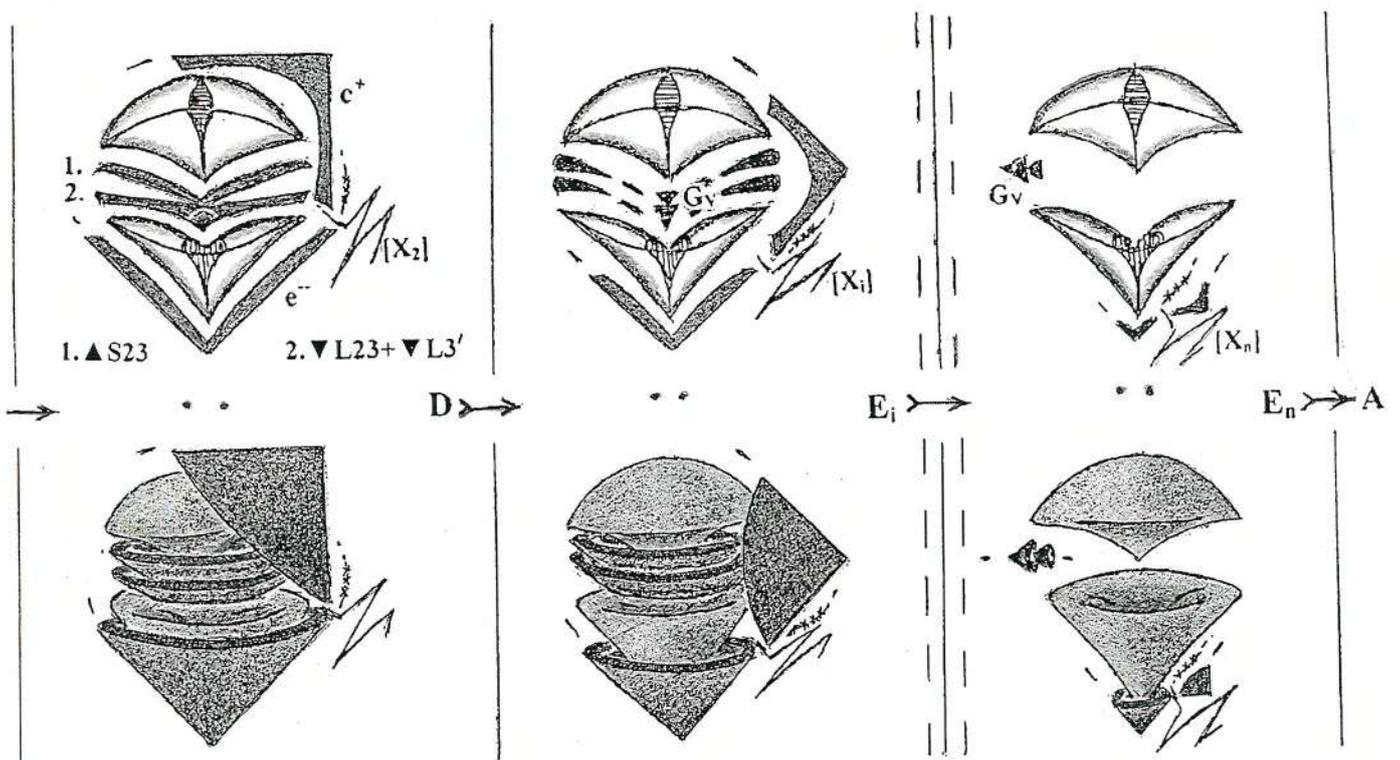
3. Functioning of the particle

$L^{\wedge}S$ particle is always in a state of continuous step-by-step cyclic process:



Let's describe it, presenting the overall picture in Fig. :





A : The interaction of elements S and L in L^S leads to a structural "weakening" of the layers of their surfaces, which entails their growth and compression, respectively :

$S12 \rightarrow \Delta S12$; $S23 \rightarrow \Delta S23$ and $L12 \rightarrow \nabla L12$; $L23 \rightarrow \nabla L23 + \nabla L3'$

B, C : The continuing "weakening" of these surfaces, to the conical shapes of their coatings, leads to the consistent blocking of the sources of their contact from $\underline{d}(S1)$ and $\underline{d}(L1)$.

D : As a result, their fragmented "weakened" surfaces break and peel off: $\Delta S12 \rightarrow c^+$:

$\Delta S23 \rightarrow \Delta S23$ and $\nabla L12 \rightarrow e^-$; $\nabla L23 \rightarrow \nabla L23 + \nabla L3'$, with its resulting "activity": $c^+ \div \{u2\}$:

$\Delta S23 \div u1$ and $e^- \div \{u2\}$; $\nabla L23 \div u1$; $\nabla L3' \div u11$.

Where c^+ is a "positron", e^- is an "electron", $\nabla L3'$ is a "boson": obtained by "weakening" $L3(L.3)$.

And the remaining surface of elements S and L the L^S particle will remain inactive until its surface structure is "combed" from the result of the "cut".

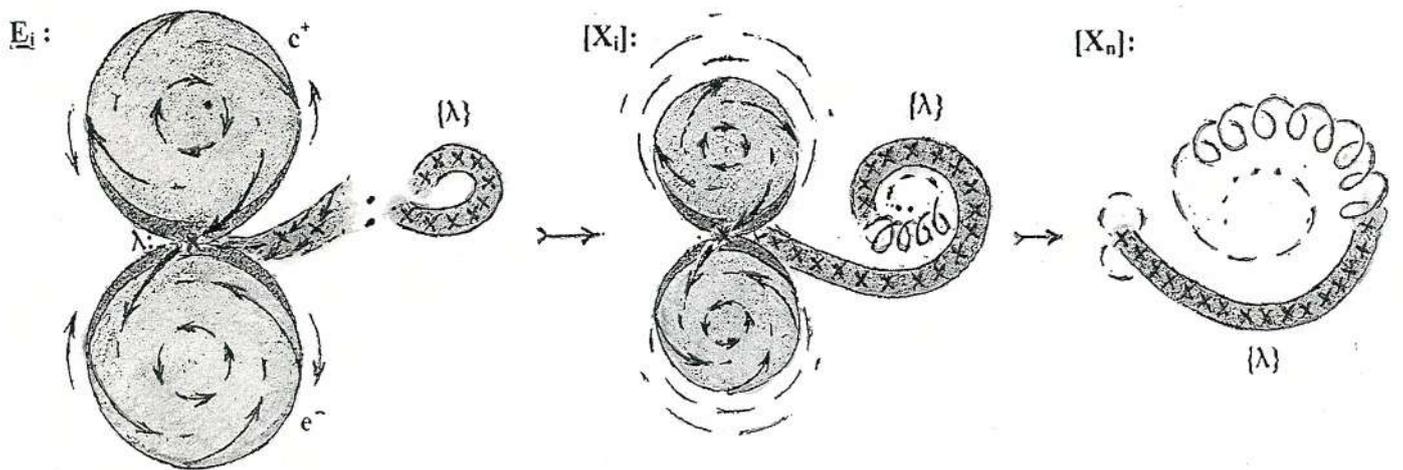
Subsequent events of this step process will occur simultaneously on the external - description Da, and internal - description Db, parts of the surfaces of the particle L^S .

Description Da.

"Activity" c^+ and e^- through $\{u2\}$ and $\{u2\}$ lead them to object connection.

If there are no additional conditions to this, then such a connection in their rotation, by the degree of "activity" of their connection, leads them to a "stage-by-stage" annihilation (passing steps E_i) from their common point.

It represents the unwinding into a "crawling snake" of additionally "weakening" "point" interactions - elements of the quantum λ , forming an "electronic orbital" $\{\lambda\}$:



And its complete image will be determined by the functional structure of the set $\{L^{\wedge}S\}^*$ - the atomic type of matter .

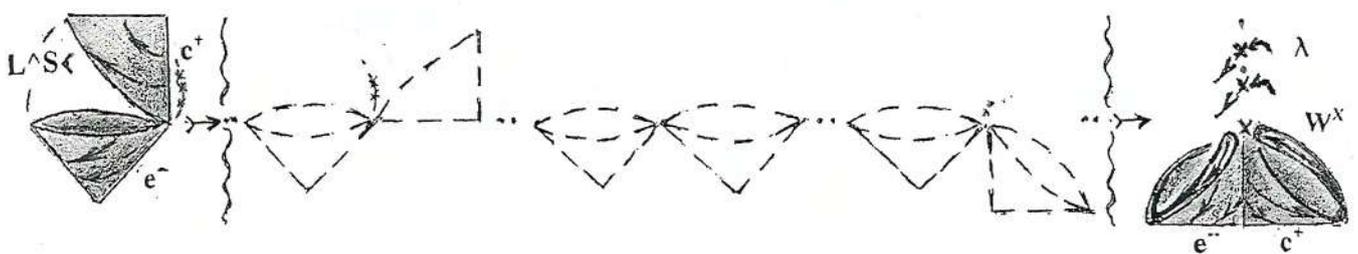
This emerging "crawling snake" in the fading "activity" of its elements λ passes into the process of "complete" annihilation from the initial place of its formation.

The process of "complete" annihilation is a "short" stage that transforms the fading "activity" of sources into a structural-phase form of space (TE, TP) , which is a "Vacuum" filled with "activity".

And the path of its passage is determined by the structural appearance of the source itself and determines its properties - electromagnetic and so on .

And if in the described process of connecting c^+ with e^- from $L^{\wedge}S$ to them in some section $[X_i]$ an additional connection is formed with another object that has a homogeneous connection with it with a different frequency of its passage, then the result of this connection is from the "alignment" of its frequencies leads to a change in the images of these objects - a change in the arrangement of their constituent elements .

An object with c^+ and e^- from $L^{\wedge}S$ has a maximum frequency of its connecting passage - as a result of the continuous formation of a "crawling snake" from its λ , which means its change is only possible in a "smaller" direction - with a reversal of the image of its constituent objects into Zug form W^X and completion of the formation of a "crawling snake" :



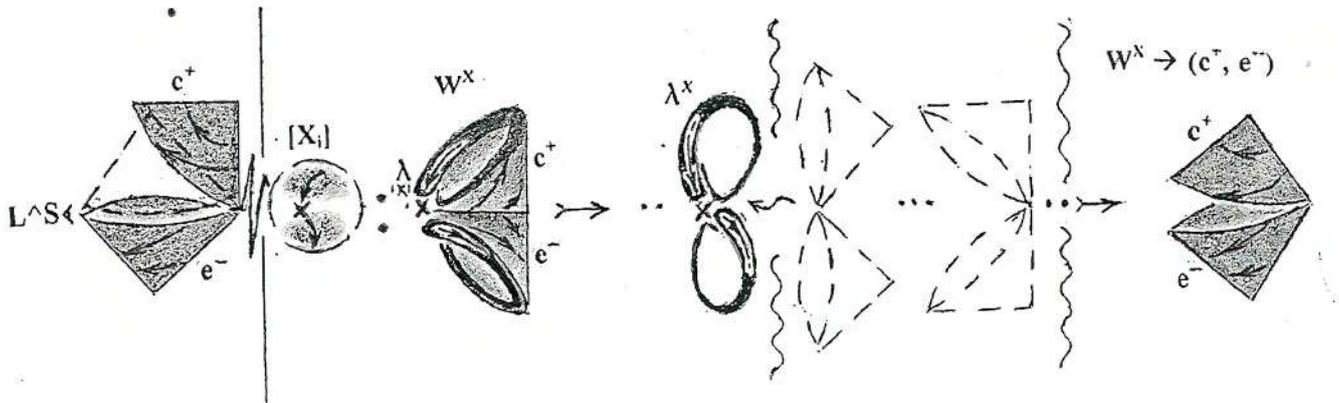
The edges of the conical bases of the W^X components are structurally open and, through their continued "activity," expand into the surrounding environment .

This means that they will interact through a contact located at a distance Δ from the common point of the bases of their cone images c^+ , e^- and will be identical in their action to the original image .

This contact, by means of an additional "weakening" of the bases of these conical images - in the direction of expansion and compression - outward and inward from their edges. brings the edges of these bases to a single vector direction of interaction .

It represents the element of quantum λ in W^X , discretely obtained and then discretely separated in an ongoing process of "complete" annihilation from its conical components c^+ , e^- .

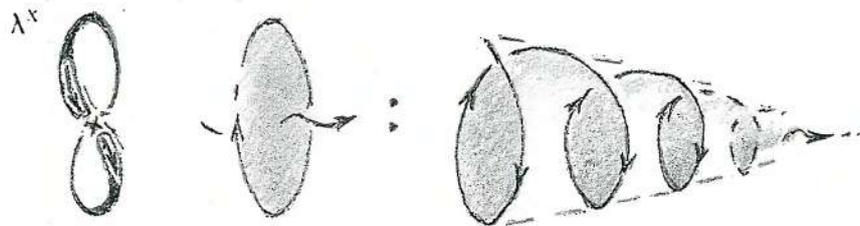
Thus, from W^X we obtain a connecting object with an object: e^+ with e^- from L^S , on $[X_i]$ its section with a "minimum" passage of the connecting cycle – as a result of the discrete formation of its λ :



This connection, on the part of W^X , leads to the "increasing" of the passage of its connecting cycle – the reversal of its constituent elements into the form of an image of the connecting object: e^+ with e^- from L^S .

It begins with the "build-up" λ : of a quantum λ^X , with its subsequent detachment and transition to an electromagnetic wave : optical $\lambda^X=O$ from $W^X=O$ on section $[X_2]$, and ultraviolet $\lambda^X=F$ from $W^X=F$; X-ray $\lambda^X=N$ from $W^X=N$; gamma rays $\lambda^X=\gamma$ from $W^X=\gamma$ on sections $[X_i]$ in continuation .

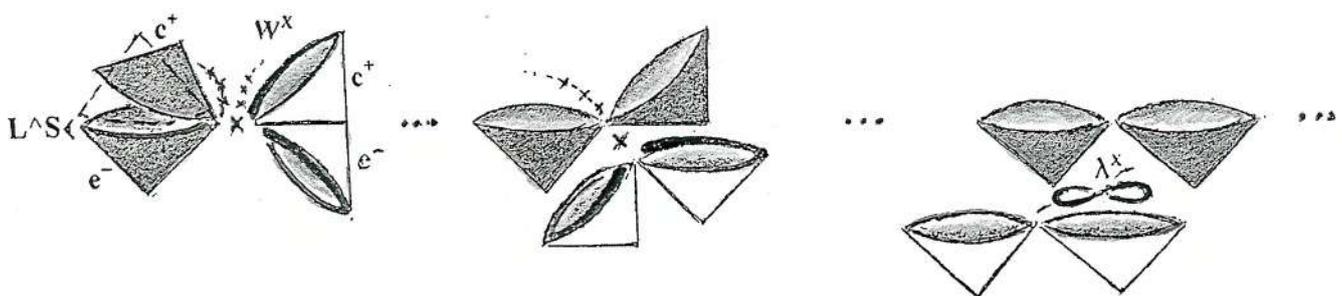
The transition of a quantum λ^X into an electromagnetic wave is the process of its "complete" annihilation, from the "stage-by-stage" in its receipt, taking the form of a spiral image :

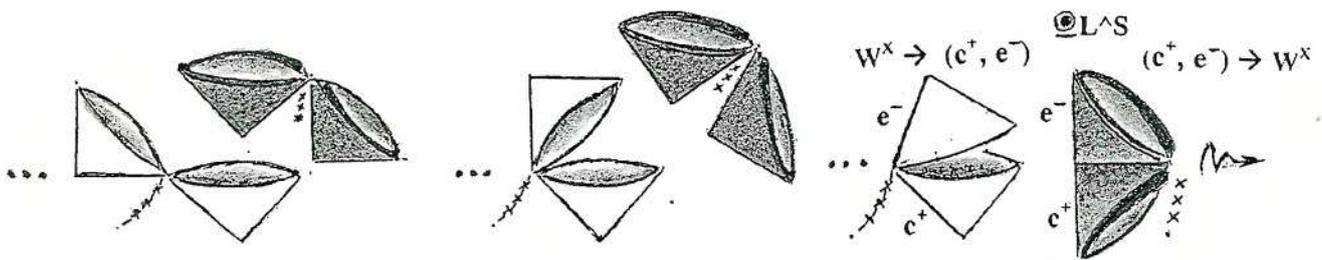


This form of image is determined by the "activity" of the quantum λ^X – in the circular advancing direction, from its structural form, in its annihilation .

And for the primary , "volumetric", optical λ^O this narrowed sequence of attenuation gives its spectrum .

And the picture of the described "transitional" transformations takes the following form :



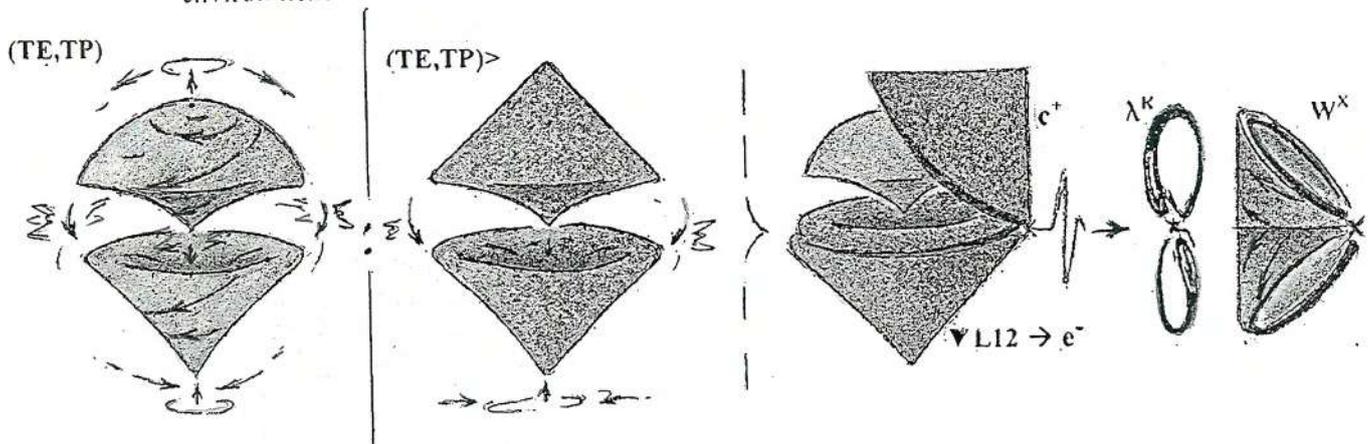


Result :

- if to the functioning particle L^S a connection with the Zug W^X is formed . then its electron - positron the couple will pass into the image of this Zug, and Zug himself will pass into the continued action of this pair, from his own, with the emission of a quantum – a electromagnetic wave .

Let turn to primary education W^X .

Let us consider the functioning of the particle L^S at a high value (TE, TP) of its environment :



When the value (TE, TP) of the particle's environment L^S is high , the "activity" of its $\underline{d}(S1)$ element S will be weaker than the $\underline{d}(L1)$ element L .

Therefore, its "blocking", with subsequent ones on S , will be completed faster .

As a result, we get a break : $\Delta S12 \rightarrow e^+$, followed by its connection with $\nabla L12$ via

$\{u2\} \cup \{u2\}$.

Their rotation will begin to differ – in the smaller direction at e^+ .

And this leads to the completion of the formation and rupture: $\nabla L12 \rightarrow e^-$, with the "cutout" of the quantum – electromagnetic wave: the first – infrared λ^K , and the formation of a Zug $W^X=0$ with the absence of the primary structural layer .

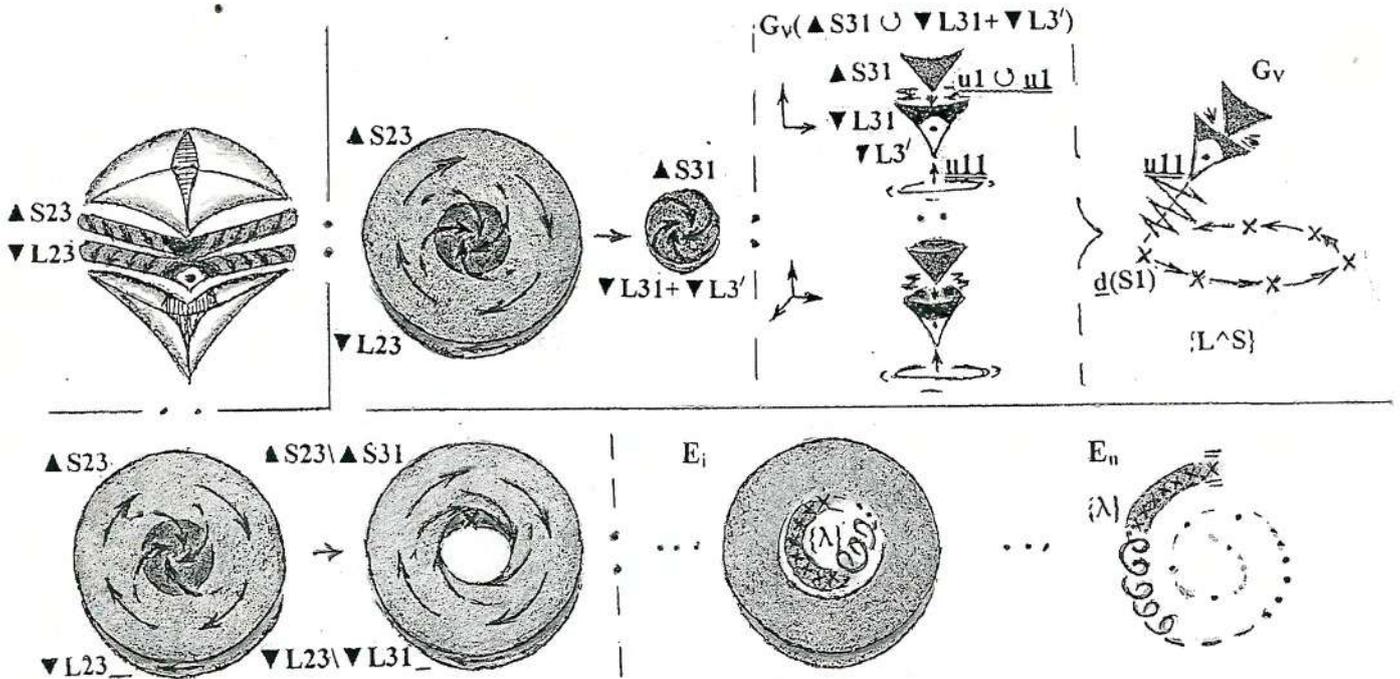
If the value (TE, TP) of the particle's environment L^S is even greater, then the infrared slice from W^X will be "more voluminous" - covering λ^0 and further, thereby forming Zugs of smaller sizes : $W^X=F$; $W^X=N$; $W^X=\gamma$, in continued.

We obtain primary formations W^X .

And its interaction with the object: e^+ with e^- from L^S , on $[X_i]$ its section will occur after the annihilation process of this object moves to this section .

And at the end of the "Description Da" we can conclude that everything in the observed space is, basically, Zugs, and light with other quantum-wave manifestations are formed, briefly, at the moment of interaction of these Zugs with matter.

This explains the corpuscular-wave properties of radiation .
Description Db .



The “activity” of ▲S23 and ▼L23 through $\underline{u1}$ and $\underline{u1}$ leads them to an object connection in the middle of the interior of the particle $L^{\wedge}S$.

But the resulting nucleus - “boson” $\nabla L3'$ with its adjacent structure $\nabla L31$ is “cut off” from $\nabla L23$ together with its interacting $\Delta S31$ from ▲S23 , the result of its “activity” $\underline{u11}$, forming a Gravitational quantum $G_v(\Delta S31 \cup \nabla L31 + \nabla L3')$.

And the remaining “cut” layer of the object, having the shape of a truncated cone contour : $\Delta S23 \setminus \Delta S31$ and $\nabla L23 \setminus \nabla L31$, goes into the process of annihilation – in the likeness of an “electron orbital”, from the common “oscillating” point of the ring “activity” of these components in the cut .

This is due to the distinctiveness of the conical shapes that complete them - more “flat” in $\nabla L23$.

The completion of this process will be the release of G_v from the particle $L^{\wedge}S$. The gravitational quantum G_v moves in the direction of its free “activity” $\underline{u11}$ from the $L^{\wedge}S$ that gave birth to it .

And on its way, encountering the action of the “activities” of the material set $\{L^{\wedge}S\}$ it slows down and goes into oscillatory rotation, from $\underline{u1} \cup \underline{u1}$, covering with this the set of particles $L^{\wedge}S$ from $\{L^{\wedge}S\}$ by its “activity” $\underline{u11}$.

And this activity will already come from the “oscillatory” field created G_v .

This is how the effect G_v on matter is carried out .

Let us omit its numerical solution .

Now consider the Description of Db at a high value (TE,TP) of the particle’s environment $L^{\wedge}S$:

(TE,TP)>



The "activity" of $\blacktriangle S23$ and $\nabla L23$ through $\underline{u1}$ and $\underline{u1}$ leads them to a "dense" connection on the surface with the latter, which has not yet been "formed".

Their rotation will become different - smaller for $\blacktriangle S23$.

This means that their "alignment" from the resulting connection leads to detachment :

$\nabla L23 \rightarrow \nabla L23$, with a cut "before the taking shape" of the Gravitational quantum G_v and the formation, from the remaining "slice", of Radio Zug W^R ($\blacktriangle S23 \setminus \blacktriangle S31$, $\nabla L23 \setminus \nabla L31$) with their release from the particle $L^{\wedge}S$.

We also note the possibility of additional emission of radio waves from the primary layer W^R , in the likeness of "infrared" radiation, which may represent "relict radiation".

Radio Zug W^R is a layered shape of a conical outline in truncation from : $\blacktriangle S23 \setminus \blacktriangle S31$ and $\nabla L23 \setminus \nabla L31$, with its ring "activity" from the ring interaction of these components in the formed slice G_v .

"Activity" W^R is manifested by the discrete radiation of its "spiral snakes" - "rings in motion", from its elements - point interactions λ .

They are formed in the similarity, described earlier, of their annihilation process on the Δ layer of "activity" W^R , caused by the environment (TE,TP) - having the distinctiveness of its state in its impact on this "activity", transferring this Δ layer to different conical contours.

And the formation of an Electromagnetic Radio Wave: λ^R , occurs during interaction W^R with an object that has a different - "higher" degree, the frequency of passage of this connection.

And the resulting assortment $W^R = \dots$, with different wavelengths, is formed in the similarity of formations $W^X = \dots$

Concluding the descriptions of the sections, we note the "omission" of premature descriptions of the details of the routes for the passage of "activities" in the described connections.

4. Atomic structure.

Consider a set of atoms covering a significant range of their properties:

- radioactivity;
- types of electron "orbitals";
- structural features;

- excess mass ;

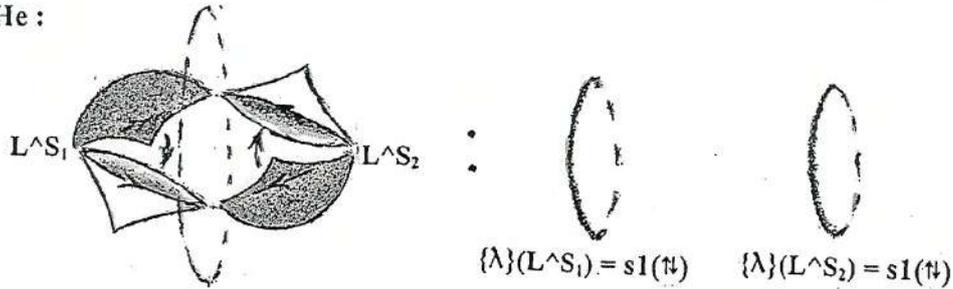
These will be: Isotopes of Helium (He); Oxygen (O); Beryllium (Be); Carbon (C).

- And the Hydrogen atom (H) has already been mentioned .

A. Isotopes of Helium (He).

One of the possible connections of two particles $L^{\wedge}S$ gives the Helium (He) atom :

He :

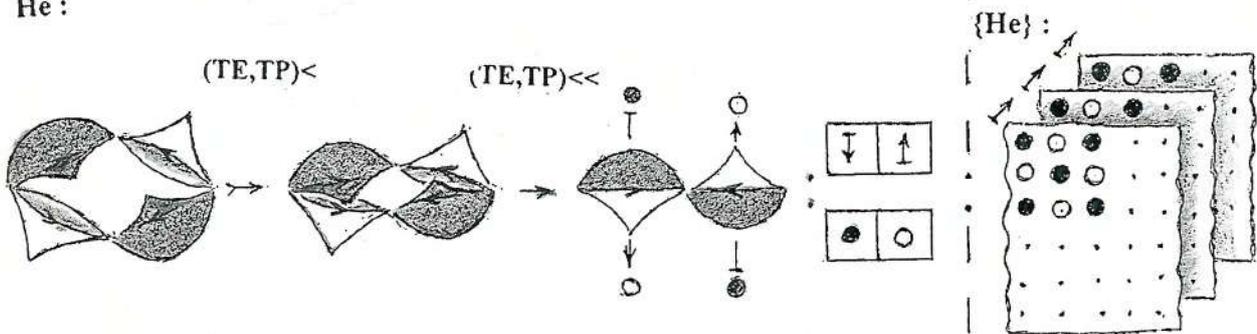


Angle of connecting inclination of elements S and L in each $L^{\wedge}S$ from He does not interrupt their interactions $\underline{u1}(S3) \cup \underline{u1}(L3)$, with the passage of cyclic processes of these particles and the formation from them of two identical “crawling snakes” - “electron orbitals” : $s1(\uparrow)$ and $s1(\uparrow)^*$.

Decrease: $<$, values $(TE,TP) : (TE,TP)<$, environment He leads to a decrease in the connecting angles of its elements S and L from $L^{\wedge}S$.

And at some stage: $(TE,TP) \ll$, He will move to the image of interaction from the standard forms of particles $L^{\wedge}S$, through $\{\underline{u2}(S2)\} \cup \{\underline{u2}(L2)\}$, with their opposite orientation in location :

He :



This interaction is “correct”, but not sufficient - in the symmetrical relation of the connection.

This “drawback” eliminates the “weak” structural - phase space $(TE,TP) \ll$, the environment of the gas set from He, allowing in to implement its homogeneous continuous connection in $\{\text{He}\}$.

We obtain the set $\{\text{He}\}$ – liquid state .

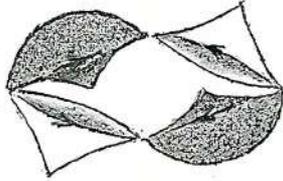
It is formed even when they approach $L^{\wedge}S$ to the standard form .

And already in the combination of its $L^{\wedge}S$ from standard forms, it assumes a superfluid state, allowing any of its particles to move in the direction of its homogeneous direction, without a reverse reaction to this, with deformation of the overall appearance, thereby exhibiting the ability of “leakage”.

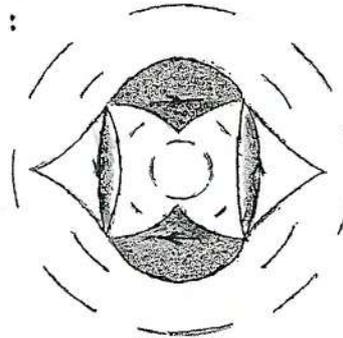
Now let's change the angles of the connecting inclination of the elements S and L in each particle $L^{\wedge}S$ from He by 90^0 .

We get the particle α (Alpha) :

He : •



α :



Such a change breaks the connection between $\underline{u1}(S3)$ and $\underline{u1}(L3)$ from S and L for particles $L^{\wedge}S$, and hence the subsequent passage of their cyclic processes with the formation of "electrons" and so on, thereby "destroying" the particles themselves into their components in the compound.

And their "polar" interaction of "quarks" covers the outer and inner parts of the α - particles without making any additional changes.

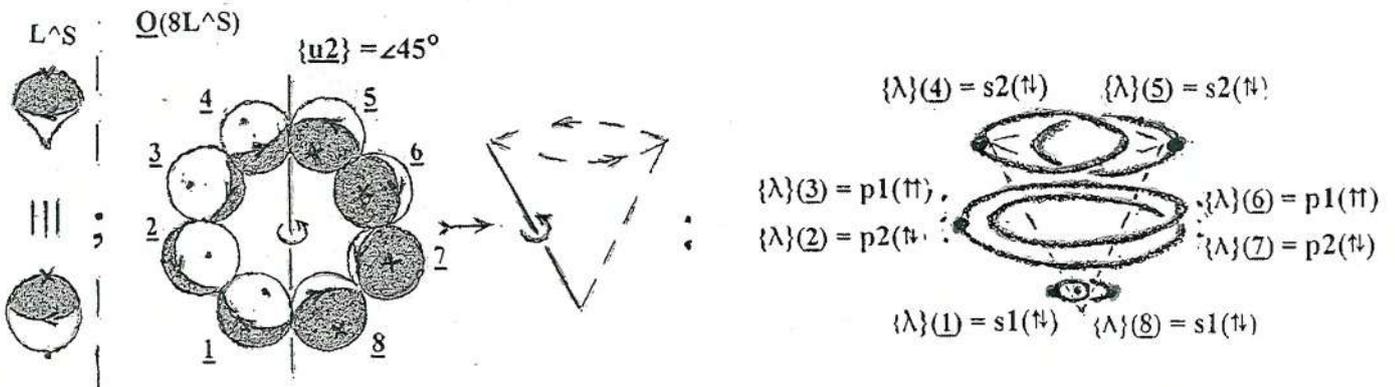
And if we take into account that radioactivity is a "bombardment" of "burns" and "hypothermia" from the action of free "quarks" of the elements S and L, then α - particles it will be absent.

b. Oxygen (O).

For the convenience of multiple representation of $L^{\wedge}S$ particles in an atomic structural compound, we will depict them as "spherical coatings" with the application of acting "quarks" on them.

The stability of a structural atom from its constituent set $\{L^{\wedge}S\}$ gives the identity of the angles of connections from $\{\underline{u2}(S2)\} \cup \{\underline{u2}(L2)\} : \{\underline{u2}\}$, each of its particles.

For $\{L^{\wedge}S\}$ of 8 particles - atom Oxygen (O), it will have the following form:



This "arbitrary" shape can be changed while maintaining the equality of the angles of the connections of the particles in $\{L^{\wedge}S\}$.

This atom already has a variety of forms of its "electronic orbitals".

Let's stop at them.

Let us construct the route of movement of each particle of an independent Oxygen atom, which rotates in the image of the result of the action of its resulting "activity".

The "creeping snake" they form - $\{\lambda\}$ will pass along this route, determining their electron orbitals.

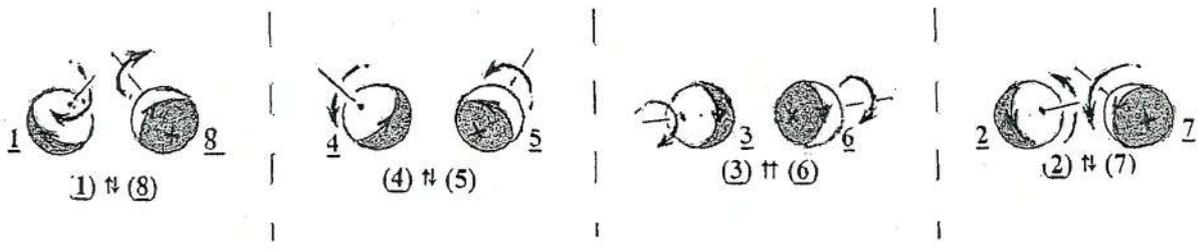
The image of an atom **O** will always look like this : two of its particles directed "inward" of its image, their opposite two - "outward", and the remaining ones - in pairs in "opposite" directions .

• This arrangement of particles leads to the own rotation of the image (**O**) along a conical surface with the top from the "internal" direction of the particles, and the base from their "external" direction .

As a result, we obtain the following routes of atom particles (**O**) with the types of their "electron orbitals" :

- located at the apex of the cone – "small" circular shapes related to : $s1(\uparrow)$; $s1(\uparrow)$;
- located at the base of the cone – "large" circular shapes related to : $s2(\uparrow)$; $s2(\uparrow)$;
- located on the lateral of the cone – "loop" forms related to : $2p1(\uparrow\uparrow)$; $2p2(\uparrow)$.

One opposite pair with $2p1(\uparrow\uparrow)$, in a "lateral" arrangement (**O**) of greater tilt with the same "electron orbital" , does not differ in mutual rotation, and therefore will have a "spin" - $\uparrow\uparrow$:

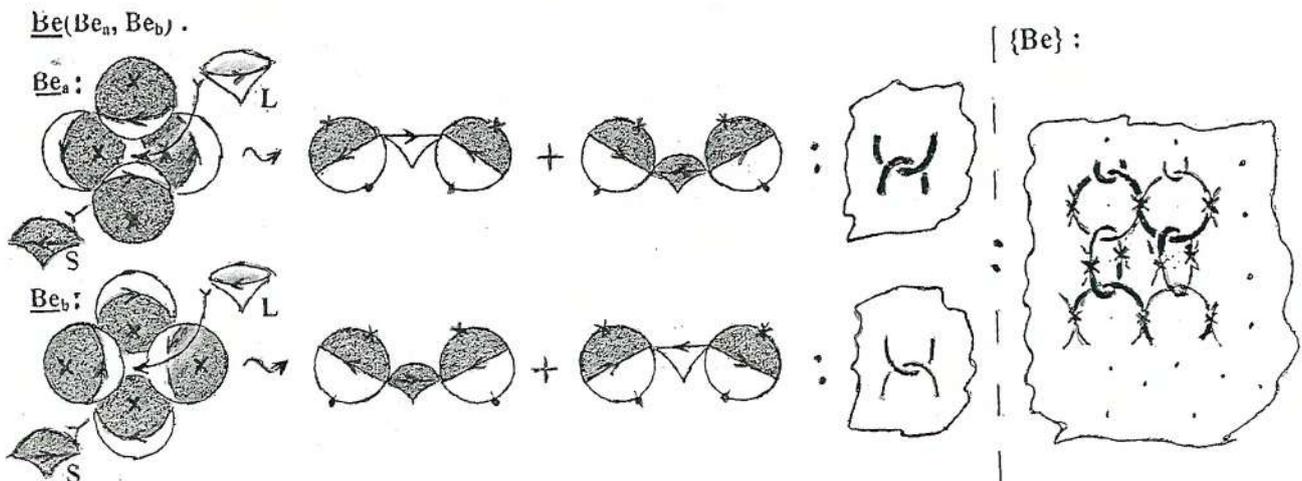


This is a figurative representation of "spins": $\uparrow\uparrow$; \uparrow , in identical "electron orbitals" , is used in all atomic designs .

c . Beryllium (Be).

By adding to the structural compound of an atom, from particles $L^{\wedge}S$, individual elements **S** and **L** give this atom "excess" mass .

An example of this is the Beryllium atom Be, which consists of four particles $L^{\wedge}S$ with an additional compound of the elements **S** and **L** , which determine the "excess" in its relative mass – " 9. " :



The substance **{Be}** has a "hard" form – a solid state .

Directivity: \nwarrow , its constituent particles will be :

- two $L^{\wedge}S$ are directed "inward" of the form Be :

However, for the element **L** of this particle there is a "threshold" for this action, determined by the type of its "weakening", and then the deformation of its structural part comes into effect, shown in Fig. (N3).

This element disintegrates into the following forms:

- - "inactive" **Antineutrino (An)**;
- "capacious" **Electron (e⁻)** ;

,and the element **S** - "proton", having lost connection with **L** discards its entire "energy" shell Fig.(N4) .

In this way the image of the "neutron" is destroyed.

Now let's return to the continuation of the article: **1. Formations.**

We described a process in which the values of $(TE,TP)^+$ and $(TE,TP)^-$ from a formation (Rm) were less than the value of its "threshold strength level"

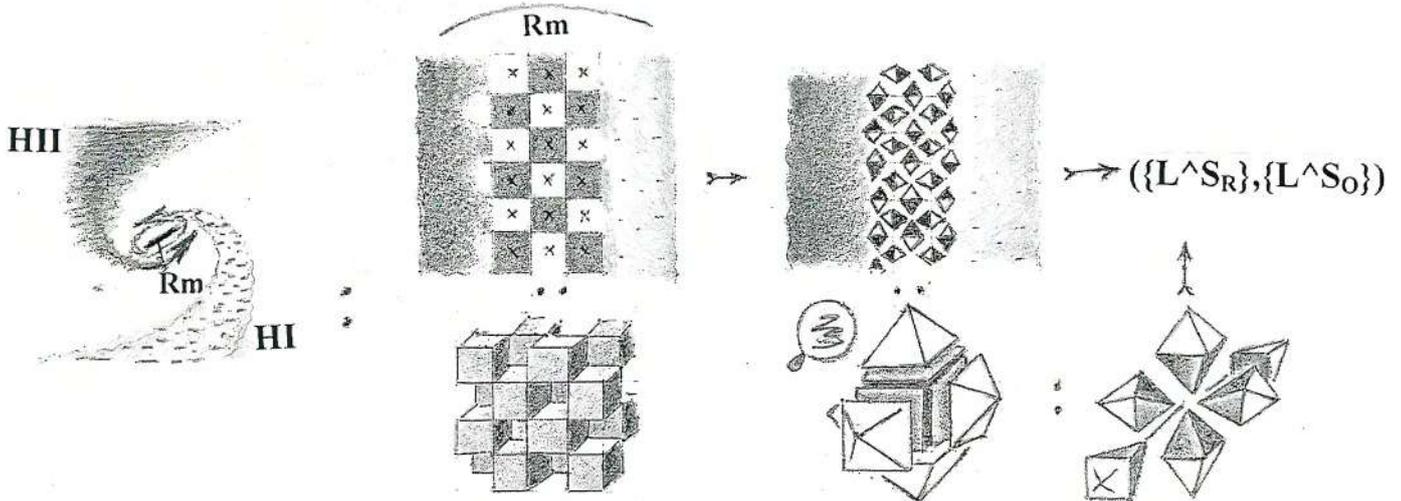
Now let us consider the effect of pressure on this formation with these maximum values :

$$(TE,TP)^+ = (TE,TP)^\oplus ; (TE,TP)^- = (TE,TP)^\ominus .$$

And the higher values accepted - up to the subsequent threshold level, will be brought to the process under consideration, since the interaction of their heterogeneous environments takes place along a single temperature scale, including the accepted values preceding them, which distinguish the sub-object in (Rm) , which will be the initial one in consideration .

This can happen in the nuclei of galaxies .

Such a process under these conditions forms, without any preparatory actions, the manifestation of "contours", adjacent "contact" ones – unconnected with each other, distinctive – of a "cubic" image, "mixing elements", smaller in size and with greater concentration, disintegrating into particles :



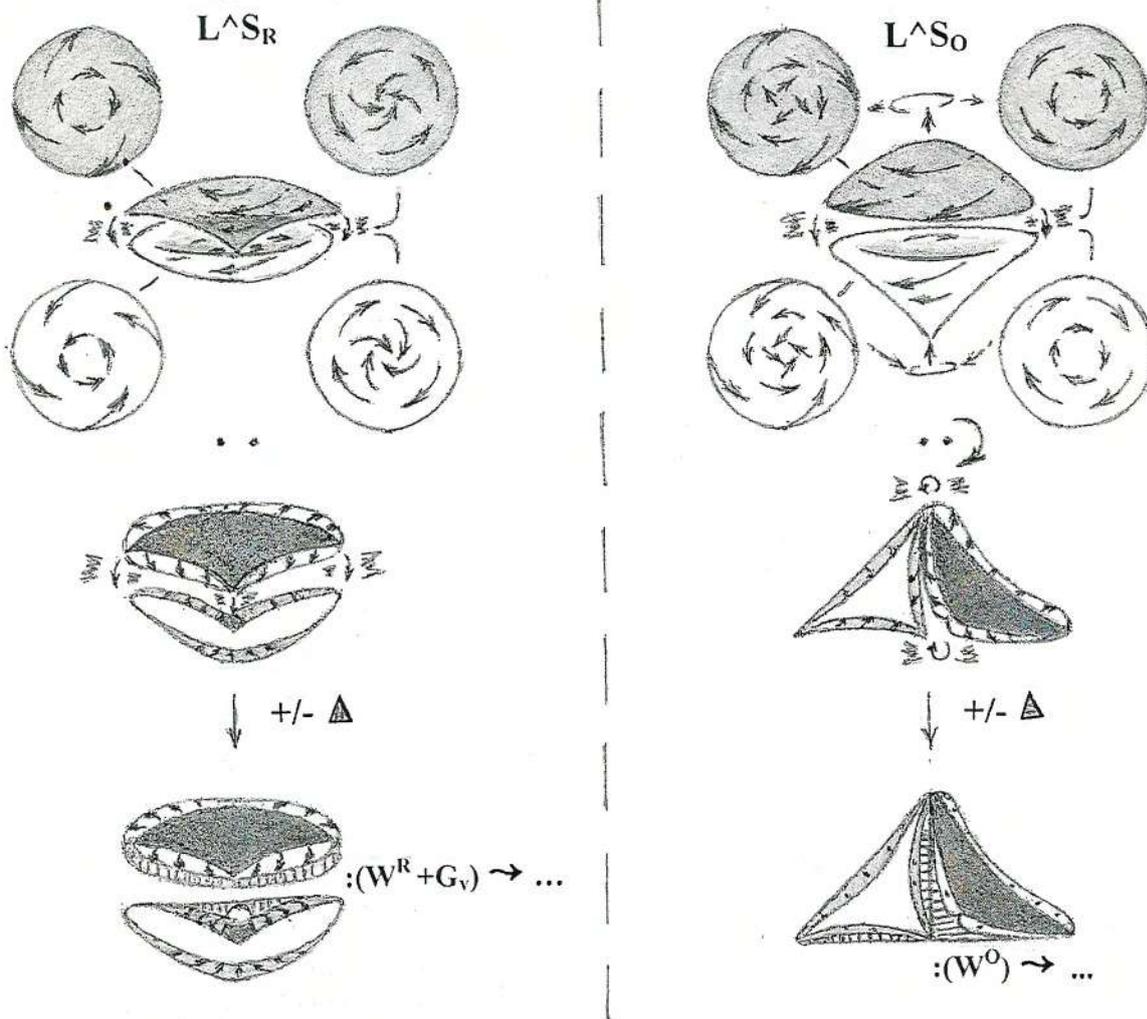
Two types of particles are formed (with the possibility of forming a third) :

- L^S_R : radio particle;
- L^S_O : optical particle;

, obtained from the result of the directed action of the pressure in question :

- from the **HI** side ;
- from the **HII** side ;

And their formation takes place in the similarity of L^S , as parts of its structural subset :



By their appearance, these particles seem to have structurally "dismembered" the particle L^S , and by their actions they repeat its properties :

- particle L^S_R "produces" gravitational quanta G_V , "internal orbitals" or "Zug" $\{\rightarrow\}$ quantum Radio waves : $W^R \{\rightarrow\} \lambda^R$, from the result of the interaction of "quarks" $\underline{u1} \cup \underline{u1}$; $\underline{u2} \cup \underline{u2}$.

- the L^S_0 particle "produces" "electron orbitals" or "Zug" $\{\rightarrow\}$ quantum Optical waves : $W^{(O,F,N)} \{\rightarrow\} \lambda^{(O,F,N)}$, from the result of the interaction of "quarks" $\underline{d} \cup \underline{d}$; $\underline{u2} \cup \underline{u2}$.

And the manifestation of the listed electromagnetic waves at enormous distances confirms the existence of such particles, since the passage of such a distance by these waves themselves and the "Zugs" that generate them is unlikely.

Continuing the description, we note that if the initial values (R_m) differ by an order of magnitude from those used in the description, then the process under consideration will proceed from their nearest threshold level $(TE, TP)^i_{\oplus}$; $(TE, TP)^i_{\ominus}$ according to the sub-object allocated to it from (R_m) with the formation of "similar" particles - complementing the described "main" ones, of the same level of nesting (i).

All of the above leads to the conclusion about the unlimited possibility of forming new "level" particles representing the stages of "Evolution into Depth" - (D_n).

And the "source" of their formations - areas (R_m) with the manifestation of pressure on themselves, are the result of the activity of the Nuclei of Galaxies, which have a certain maximum value from unlimited, on the thermal scale, "threshold" levels, and the particles formed from them cover all levels up to these values.

And if we take into account the existence of multiple Galaxies with different “threshold” levels of the maximum values of their Nuclei, then we can assume the existence of an ordered **“growth” Evolution** in them.

Then we will obtain a “slice” of the picture of the **“level-cumulative” Evolutionary process Dn** in the region of growth of extreme values of the thermal environment.

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