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Structural formation and mechanism of action of Gravitational quanta and Electromagnetic waves from their generating "Zugs".

ANNOTATION

This work will describe the structural formation and mechanism of action of Gravitational quanta and the entire spectrum of Electromagnetic waves from their generating "Zugs".
It is a continuation of the work **1701.0488** with some clarification and addition.

DESCRIPTION

In the mentioned work, a model of particle $L^{\wedge}S$ was built in the form "plum pudding J.J." representing a primary particle of matter, in the form of a hydrogen atom, and the places of its formation were presented in work **2208.0087**.

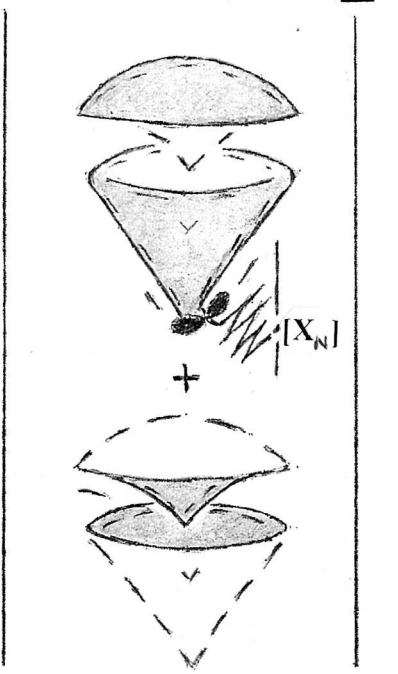
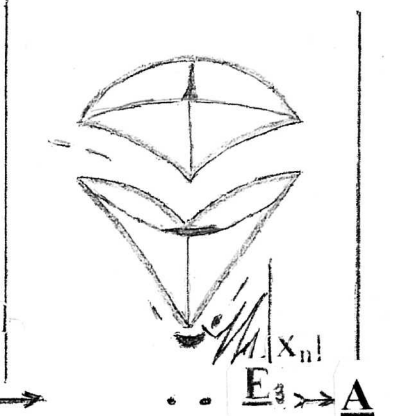
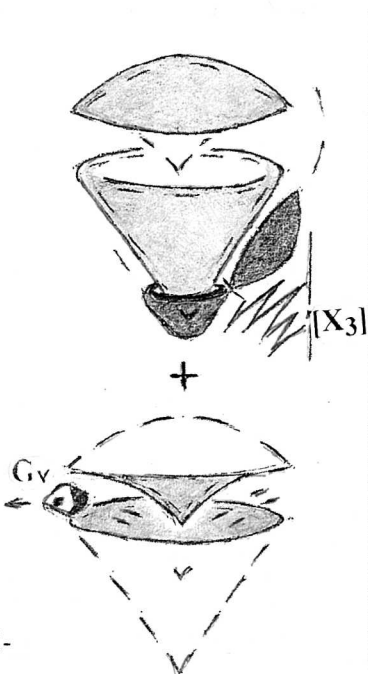
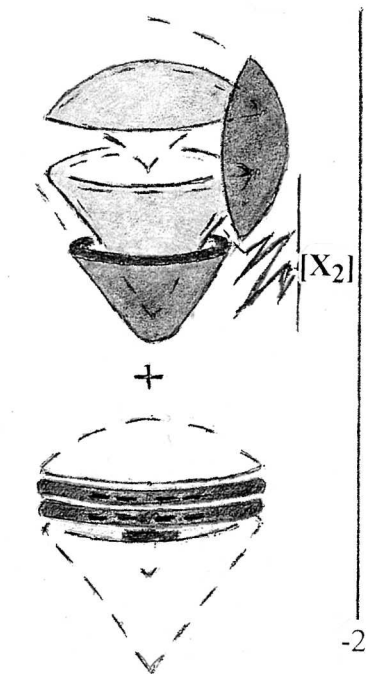
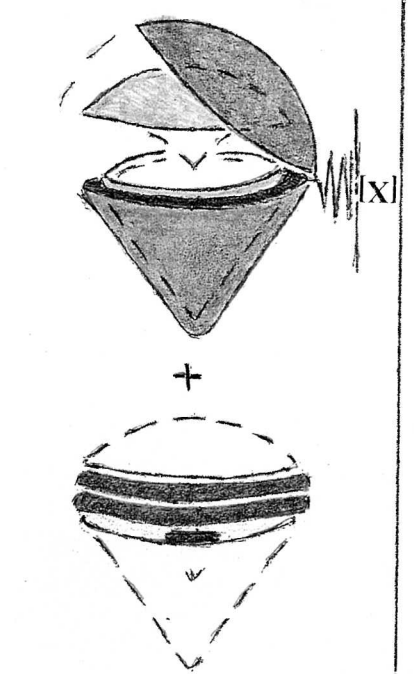
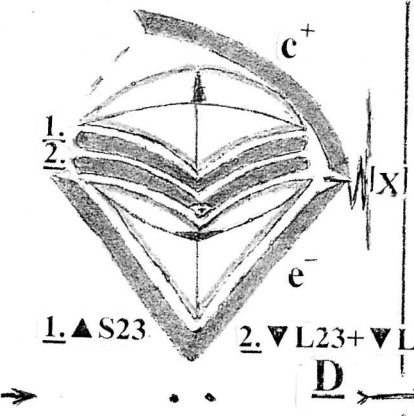
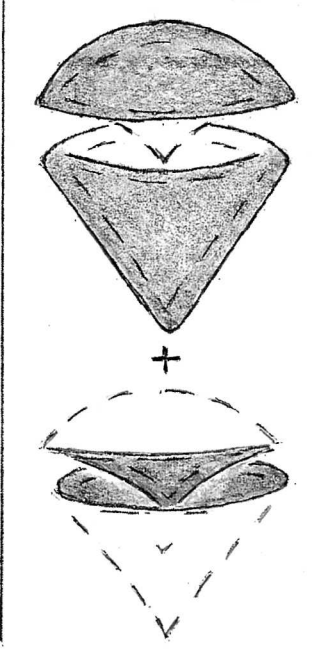
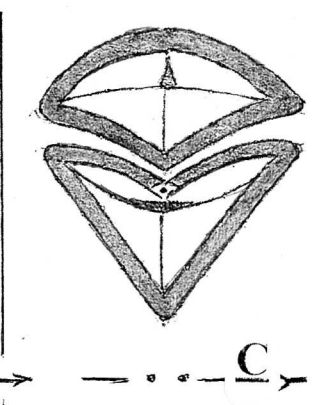
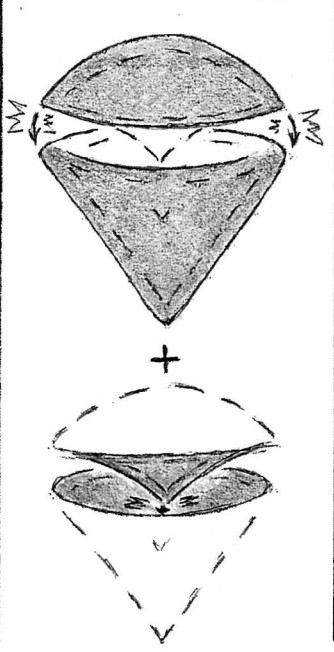
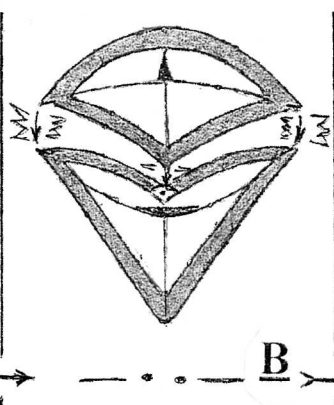
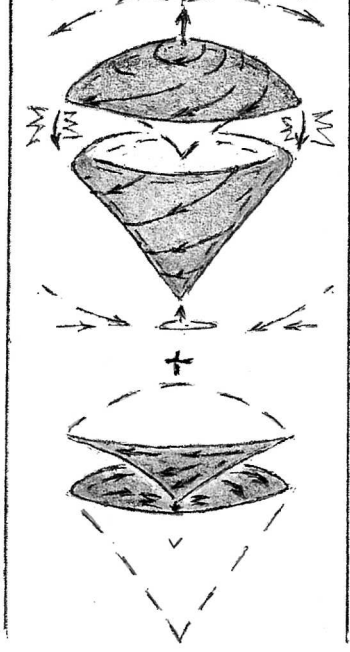
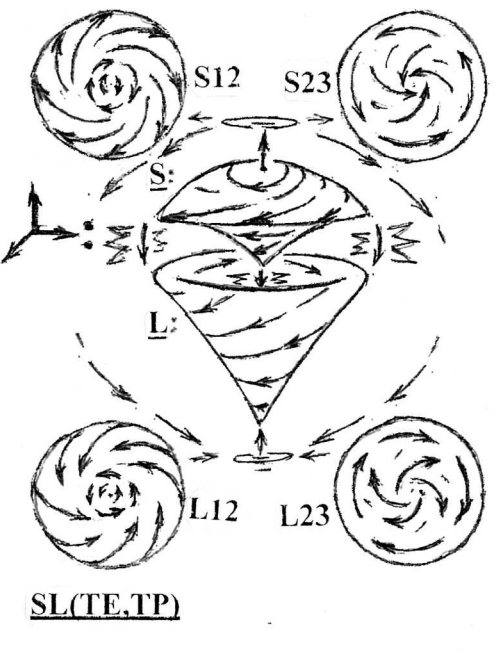
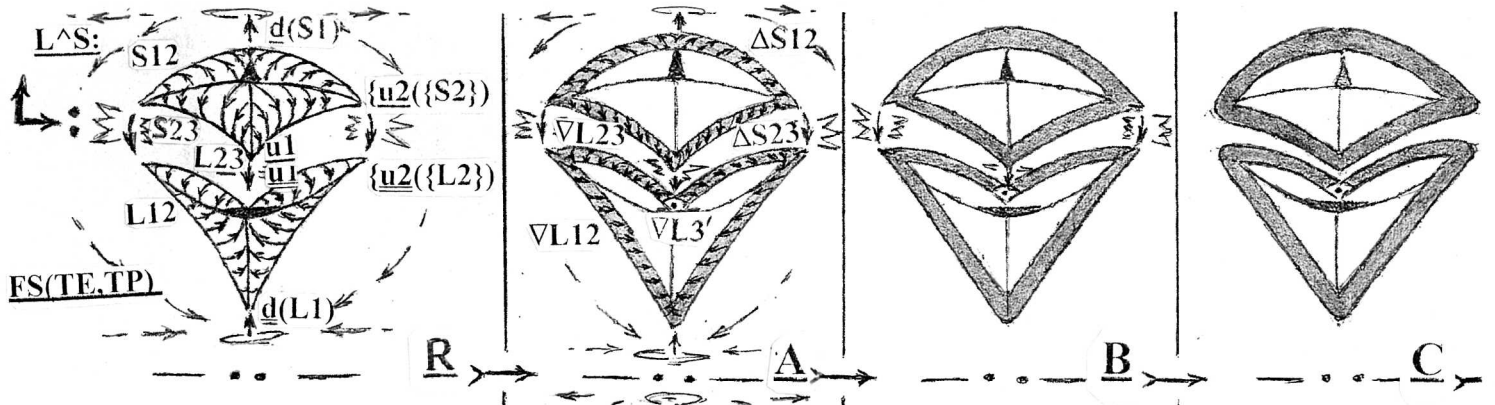
It is based on the "thermal medium" (**TE**) with its vector component "temperature pressure" (**TP**) : (**TE,TP**), which determines by its filling, with their approximate extreme value, the structure of a given particle.

The "activity" of a particle $L^{\wedge}S$ with its subsequent interaction is carried out through (**TE, TP**), obtained from structural continuation, into the environment, from the externally open areas of the surface of its constituent elements **L** - "formative" and **S** - "proton": $L1;\{L2\};L3$ and $S1;\{S2\};S3$, from "quarks" : $\underline{d};\{\underline{u}2\};\underline{u}1$ and $\underline{d};\{\underline{u}2\};\underline{u}1$.

And the elements **L** and **S** themselves have the "polar" action of their (**TE,TP**) : (**TE, TP**) and (**TE,TP**)⁺, with respect to each other.

Let us present an image of a particle $L^{\wedge}S$ from (**TE,TP**) in the "skeleton" $FC(TE, TP)$ and "layer-by-layer" $SL(TE,TP)$ structure of its formation in rotation and its step-by-step cyclic functioning with the following description :

Fig. R; Stages – A,B,C,D,E_i :



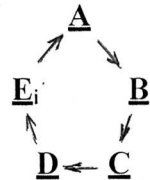
The particle $L^{\wedge}S$ is in interaction of : \cup , its elements S and L (Fig.R) :

- $\underline{d} \cup \underline{d}$: through $S1$ and $L1$ from the outer surface of the elements when passing through the external environment of this particle ;

- $\{\underline{u2}\} \cup \{\underline{u2}\}$: through $\{S2\}$ and $\{L2\}$ from the boundaries of the surfaces of the elements ;

- $\underline{u1} \cup \underline{u1}$: through $S3$ and $L3$ from the inner surface of the elements ;

and a continuous step-by-step cyclic process is performed :



A : The interaction of elements S and L in $L^{\wedge}S$ leads to structural weakening – "swelling", of their surfaces :

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

B,C : The continued "weakening" of these surfaces by this interactions leads to consistent blocking of the sources of their contact .

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

$$\Delta S23 \rightarrow \blacktriangle S23; \nabla L12 \rightarrow e^-; \nabla L23 \rightarrow \blacktriangledown L23 + \blacktriangledown L3', \text{ with the resulting "activity": } c^+ \div \{\underline{u2}\} :$$

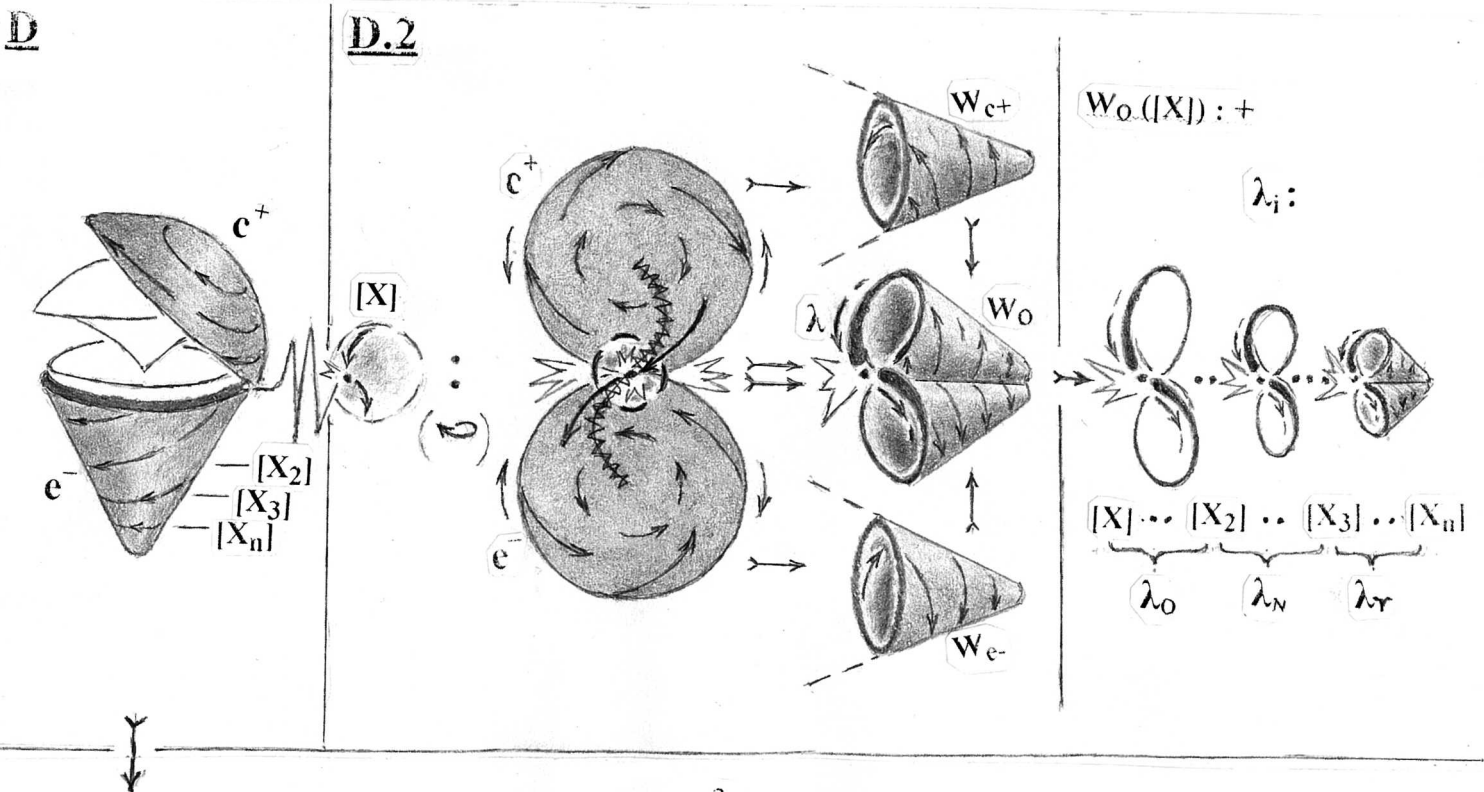
$$\blacktriangle S23 \div \underline{u1}; e^- \div \{\underline{u2}\}; \blacktriangledown L23 \div \underline{u1}; \blacktriangledown L3' \div \underline{u11} .$$

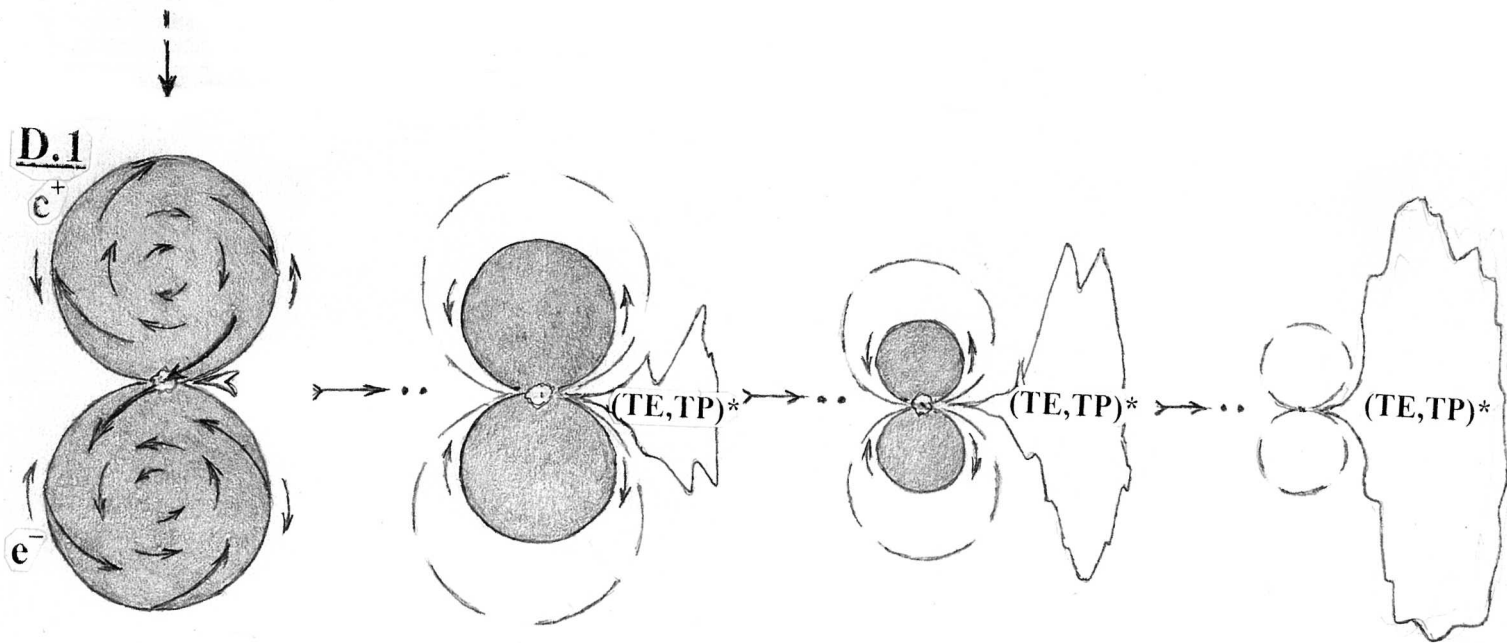
Where c^+ is a "positron", e^- is an "electron", $\Delta L3'$ is a "boson".

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

Subsequent events will occur simultaneously on the external : description of **D.a**, and internal: description of **D.b**, the fields of elements S and L of the particle $L^{\wedge}S$.

D.a :

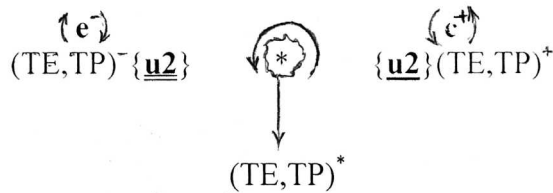




Let's turn to step **D**.

"Activity" e^+ and e^- lead them to interact.

If there are no additional conditions for this, then such interaction with rotating e^+ and e^- leads them to "complete annihilation" (Pis.D.1; steps E_1, E_2, E_3) from the point of their connection :



that is, everything that is filled with e^+ and e^- : $(TE, TP)^+$; $(TE, TP)^-$, passes into the external environment - $(TE, TP)^*$, particles through the region of their connection point.

The process of "complete annihilation" of all described objects is justified by the formation of the $L^{\wedge}S$ particle itself from the medium $(TE, TP)^*$ in a certain state.

And if during the indicated interaction e^+ with e^- an additional homogeneous connection is formed to them **[X]** (Fig.D.2) with an object that changes the moment of influence of its contact by changing its: rotation or other substitution of the contacted action, then e^+ and e^- will receive a "cracks" : $\frac{1}{2}$, transferring them to a cone-shaped form: W_{e^+} ; W_{e^-} , in its mutual connection.

An Optical "Zug" Is Formed: **Wo** (W_{e^+} , W_{e^-}) (Fig.D.2) .

The edges of the conical bases **Wo** are structurally open and expand into the environment with their "activity".

This means that they will interact through a contact located at Δ a distance from the common point of the base of their cones W_{e^+} and W_{e^-} .

It additionally "weakens" these contacting areas, bringing the remaining part of the edge of the base of the cones to a single vector direction .

This defines the element λ of the structure **Wo** .

Such an interaction and **Wo** itself will be similar in its properties to the previously presented **[X]** and can replace it when interacting e^+ with e^- .

And this will cause a response in **Wo** – tearing off its element λ .

We obtain an electromagnetic Optical wave λ_i .

It can be either single or multiple and interact through its contactable connection.

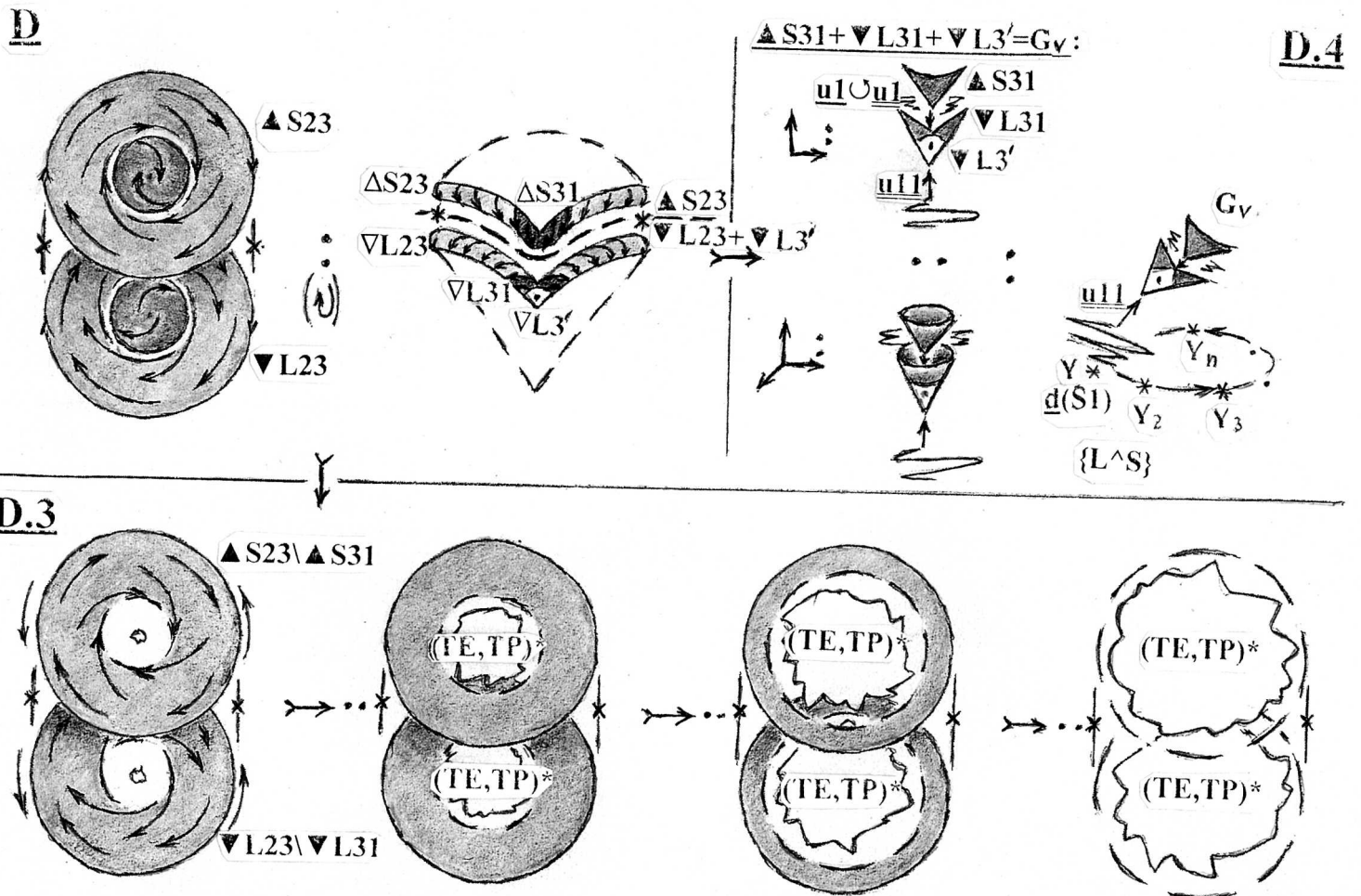
And **Wo** itself of an already "truncated" type with acquired λ can interact with the indicated e^+ and e^- in their other sections: ..**[X₂]**;**[X₃]**..**[X_n]** - the process of annihilation

(Stages E_1, E_2, E_3), forming from them similar "Zugs" and their own electromagnetic waves with further "truncation" (Fig.D.2) of its type .

As a result, from the original W_0 we get a wide spectrum of Electromagnetic waves λ_i with different sizes :

- λ_O - optical : $\lambda_{i=|X|}$;
- λ_N - X-ray : $\lambda_{i=|X2|}$;
- λ_Y - Y-ray : $\lambda_{i=|X3|}$.

D.b :



Let's go back to step **D** .

"Activity" of $\Delta S23$ and $\nabla L23$ through the resulting $u1$ and $u1$ translates them into interaction in the middle of the inner part of the particle $L \wedge S$.

But the resulting nucleus - "boson" $\nabla L3'$, with its "adjacent" structure $\nabla L31$ with $\nabla L23$ "disconnects" it together with $\Delta S31$ from $\Delta S23$, as a result of interaction $u1 \cup u1$, forming an independent formation G_v ($\Delta S31 + \nabla L31 + \nabla L3'$) - Gravitational quantum, in its displacement - downwards, from the received "activity" $u1$ with $\nabla L3'$.

This "cut" G_v from $\Delta S23$ and $\nabla L23$ forms in the middle of the inner part of the particle $L \wedge S$ two surface annular layers $\Delta S23 \setminus \Delta S31$ and $\nabla L23 \setminus \nabla L31$, interacting through the inner "active" edge .

This also leads them to "complete annihilation" (Fig.D.3) and exit G_v from the particle $L \wedge S$.

The gravitational quantum G_v moves in the direction of free "activity" $u1$.

And on its way, at the moment of its contact interaction $\underline{u11}$ with $\underline{d}(S1)$: $\underline{u11} \leftrightarrow \underline{d}(S1)$, from $L^{\wedge}S$ the material set $\{L^{\wedge}S\}$, the Gravitational quantum G_V , stopping, goes into conical oscillatory rotation with: $\underline{u1}(\blacktriangle S31) \cup \underline{u1}(\blacktriangledown L31)$, as a result, covering with this action already their set $\{\underline{d}(S1)\}$ of $\{L^{\wedge}S\}$: (positions $..Y_2; Y_3..Y_n$, Fig.D.4).

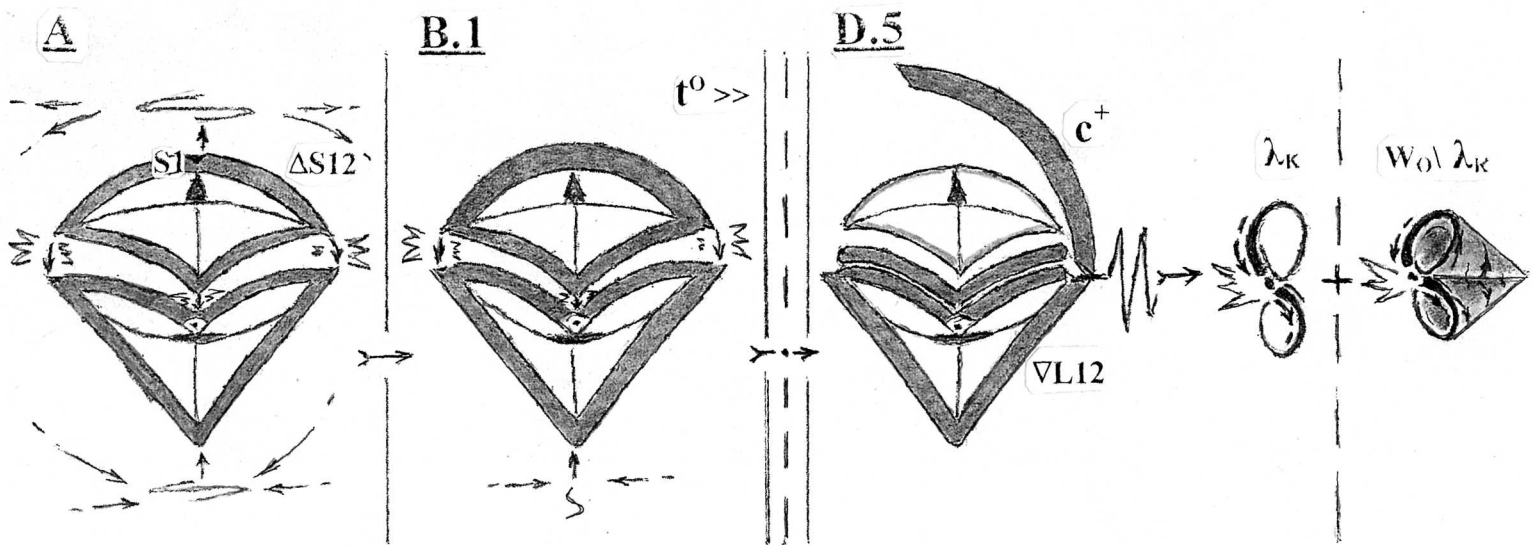
And the result of this rotational contact action will be the "pulling" of the enveloping $L^{\wedge}S$ from $\{L^{\wedge}S\}$.

Stopping at $\{L^{\wedge}S\}$ while moving G_V may not be complete.

This is how the effect G_V on matter is manifested.

E.3: And at the end of the stages of describing the standard functioning of the particle $L^{\wedge}S$ with the "combing" of its surface structure from the result of the "cut", the transition to stage **A** is again carried out.

Now let's consider the functioning of particle $L^{\wedge}S$ at a high temperature of its environment.



We return to stage **A**.

At elevated ambient temperatures of the particle $L^{\wedge}S$, the "activity" of its $\underline{d}(S1)$ element S will be weaker than $\underline{d}(L1)$ element L .

As a result, the process of "weakening" the surface of the element S with subsequent sequential blocking of its "activity" will proceed faster.

The first blocked area will be $S1$ (Fig.B.1).

As a result, the "activity" $\underline{d}(L1)$ of the element L will become weaker, thereby accelerating its blocking.

And it will occur during the completion of the cycle of all activity of the element S .

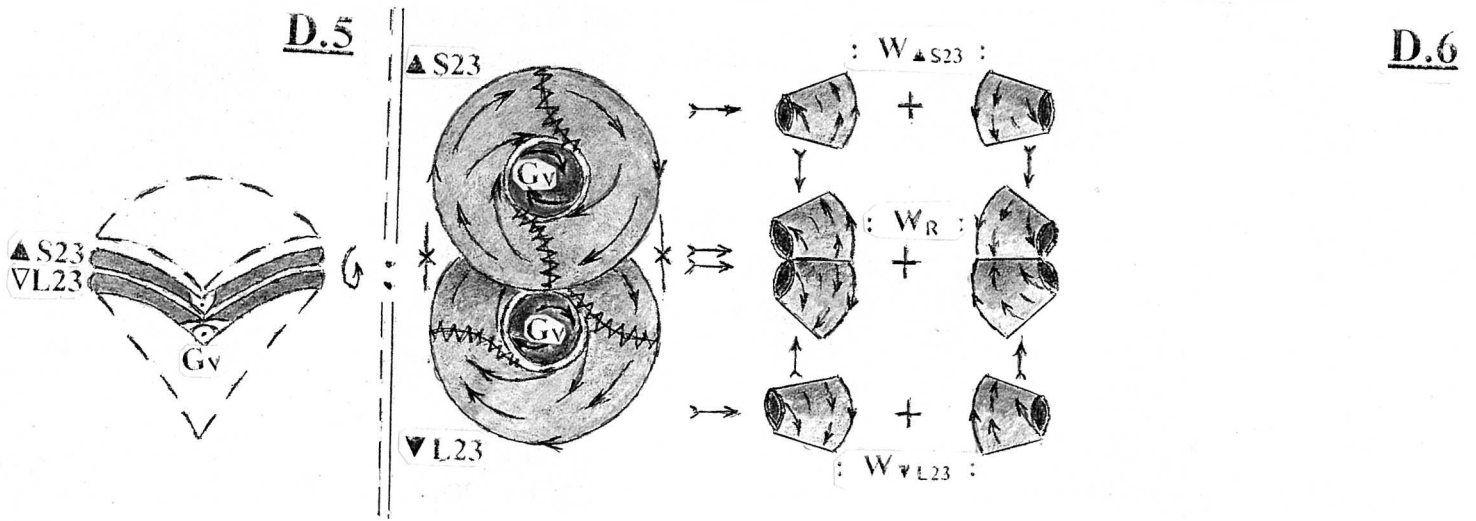
Next, we get the "detachment" of $\Delta S12 \rightarrow c^+$ and $\Delta S23 \rightarrow \blacktriangle S23$ from S and their interaction with $\blacktriangledown L12$ and $\blacktriangledown L23$ through $\{u2\} \cup \{u2\}$ and $u1 \cup u1$ (Fig.D.5).

The free rotation of the resulting c^+ will be less than the structurally large element L with the coating $\blacktriangledown L12$ and it will be established in the process of its "attenuation" from its "detachment".

Thus, at the moment of interaction c^+ with $\blacktriangledown L12$, their layer-element cutting will occur, forming an Infrared wave λ_k , accompanied by peeling $\blacktriangledown L12 \rightarrow e^-$ with the formation, according to the previously described scenario, of a "Zug" W_O without its initial element λ_k (Fig.D.5).

This is how its primary origin is formed .

Let's move on to the transformation in the inner part of the particle $L^{\wedge}S$.



Let's go back to Figure D.5 . .

$\blacktriangle S_{23}$ will "lie" on ∇L_{23} and the forming, as previously described, G_v will be in contact with the formed interacting annular layers $\blacktriangle S_{23} \setminus \blacktriangle S_{31}$ and $\nabla L_{23} \setminus \blacktriangledown L_{31}$ through their common connecting edges .

Similar to the previous description , a layer-by-element cut of these inner edges will occur with accompanying delamination $\nabla L_{23} \setminus \blacktriangledown L_{31} \rightarrow \blacktriangledown L_{23} \setminus \blacktriangledown L_{31}$ and the subsequent formation of "cracks" on them .

They will be multiple, at least two on each ring layer .

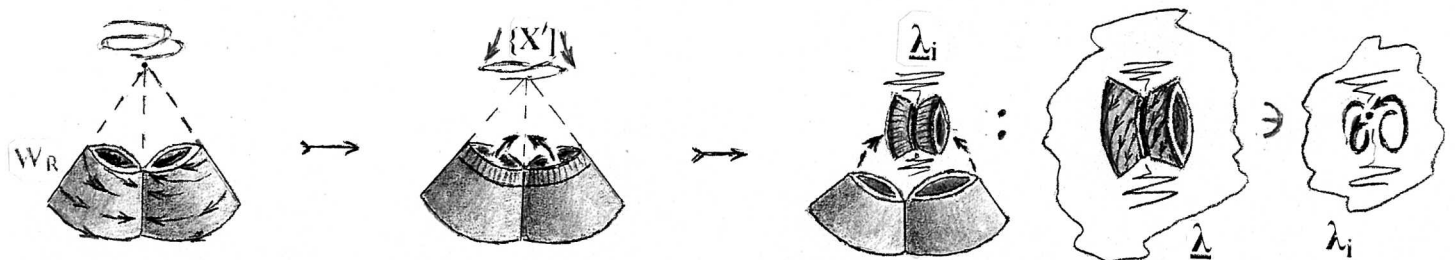
This is due to the coverage in the contact - interaction formed G_v with these annular layers during the changing rotation at their connections .

Let us dwell on paired "cracks" - "faults" .

They translate the surfaces of the annular layers $\blacktriangle S_{23} \setminus \blacktriangle S_{31}$ and $\blacktriangledown L_{23} \setminus \blacktriangledown L_{31}$ to a paired truncated cone-shaped form : $2W_{\blacktriangle S_{23}}$; $2W_{\blacktriangledown L_{23}}$, in their mutual connection .

Two Radio "Zugs" are formed: $2W_R$ ($W_{\blacktriangle S_{23}}$, $W_{\blacktriangledown L_{23}}$) (Fig.D.6) .

Interaction of each :



The edges of the conic sections W_R are structurally open and taper in their continued "activity" into the environment to the common point of their conical apexes .

Let's call it the "initial point of contact" W_R .

And if to W_R from its "initial point of contact" there will be an interaction with an object $[X']$ changing the moment of influence of its contact , there will be a detachment of the formed "weakened" layer W_R with the formation of an electromagnetic Radio wave λ .

It represents a set of single waves λ_i in a ring structure of their interaction .

The remaining "truncated" W_R is ready for its similar interaction .

As a result, from the original W_R we get a wide spectrum of Electromagnetic waves λ_i with different sizes .

And their length will be equal to the sum of their constituent single waves λ_i .

The interaction of these electromagnetic radio waves will occur through their " active " ring contact .

And in conclusion we will present structural images of the resulting formations with the result of their interactions :

