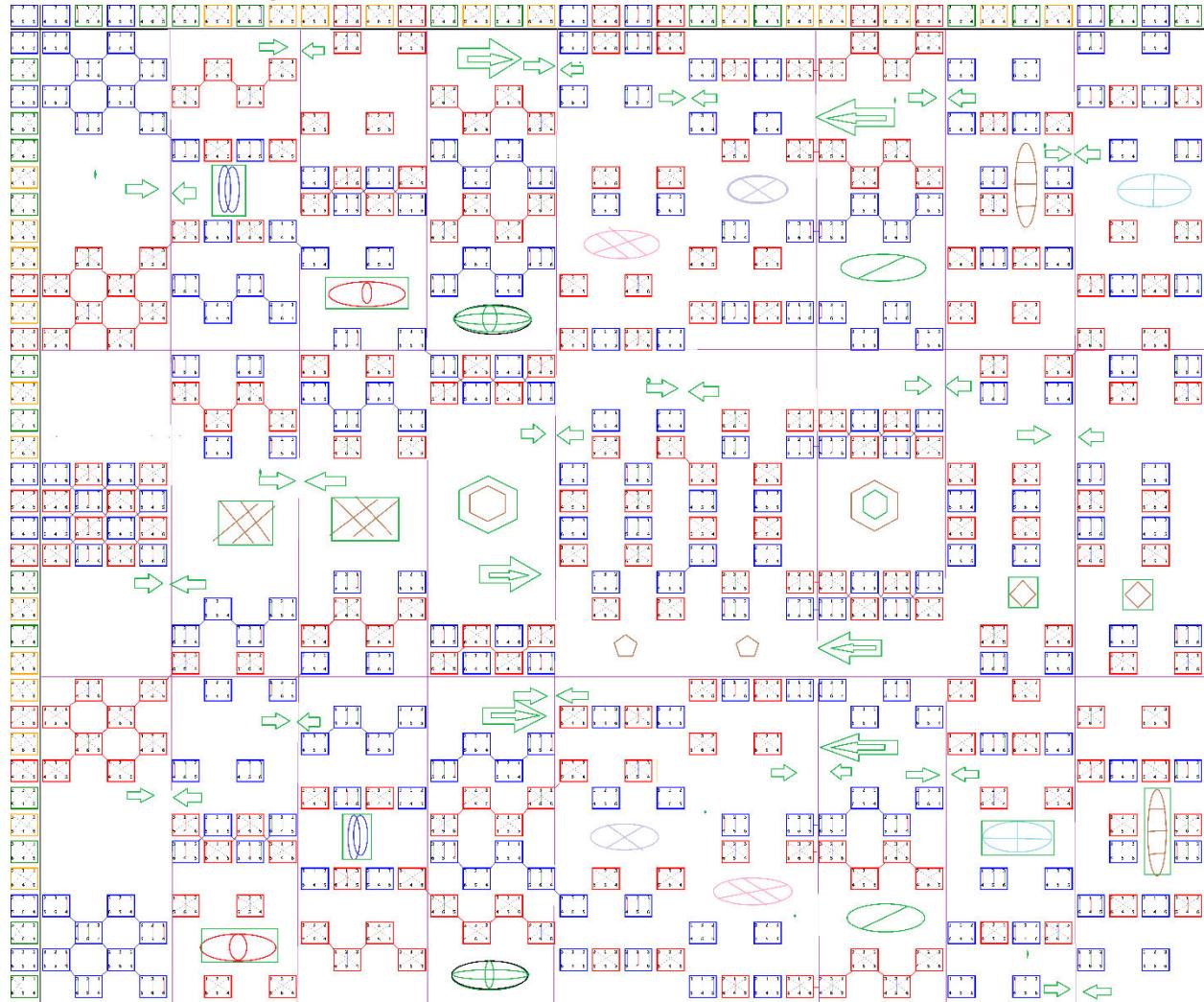


## 63.DECIPHERING OF THE DYNAMICS AND COMPLEXITY OF THE EVOLUTION OF THE UNIVERSE ON STAGES

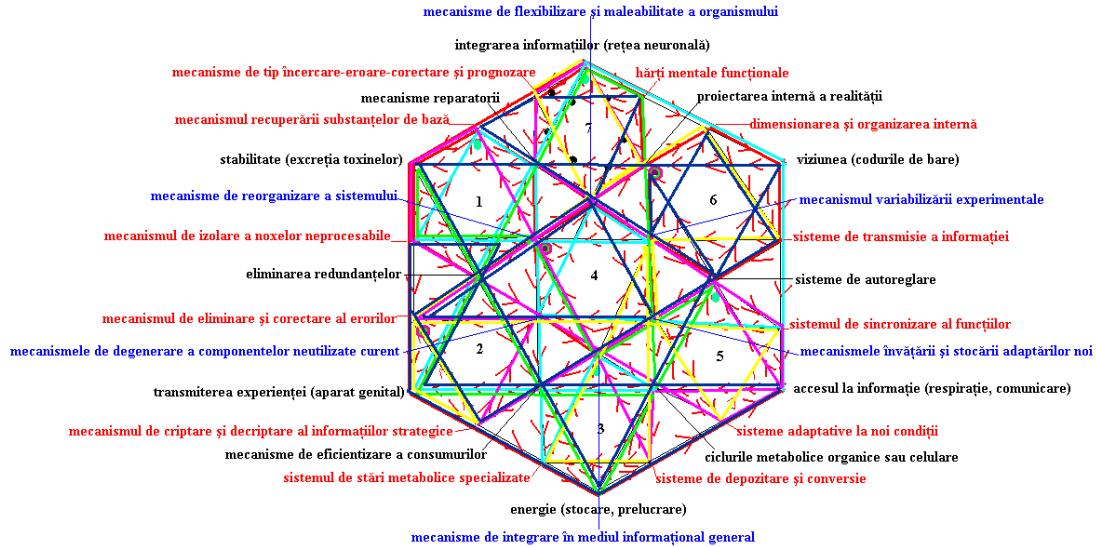
The evolution of the universe is coherent starting from the phenomena of the big bang-big crunch type and going to the phenomena of functional organization of life.



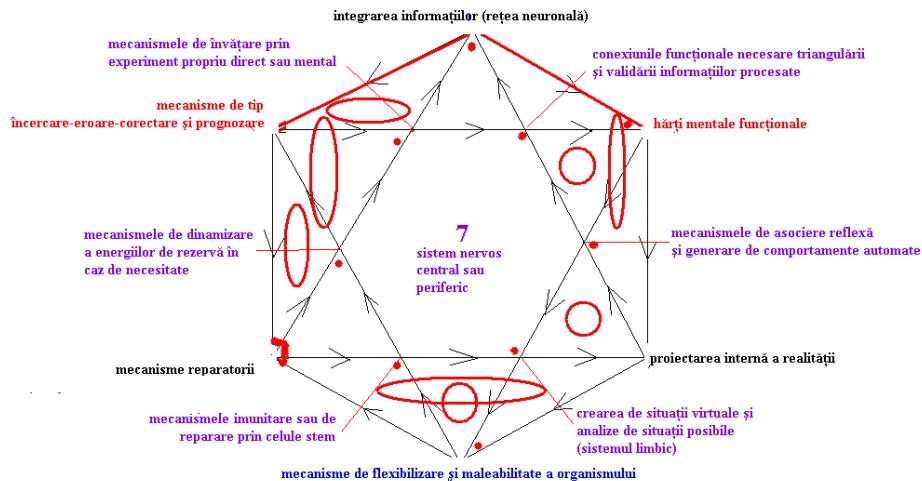
The models of zipping and unzipping of information in both cases are similar, but they act on different situations. At the multiverse level, the stages can be determined by bending the table according to the vertical lines, which allow the squares to be rearranged among each other, without overlapping. At the level of life, the phenomena are

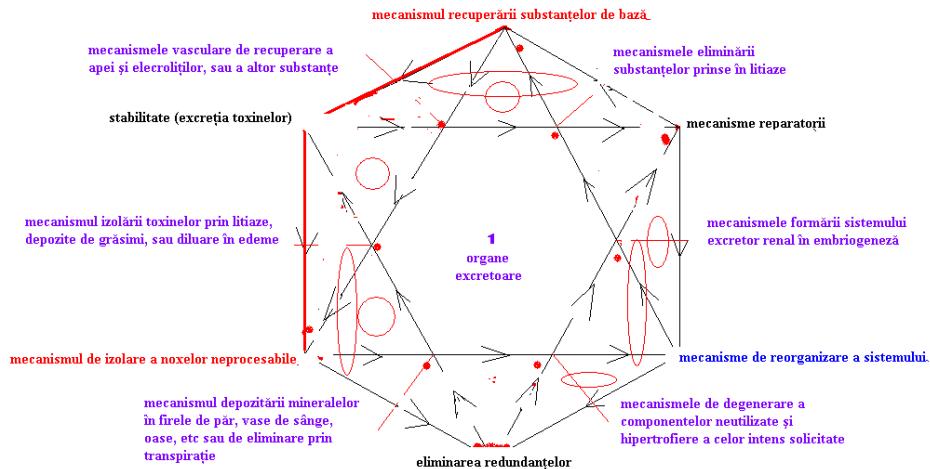
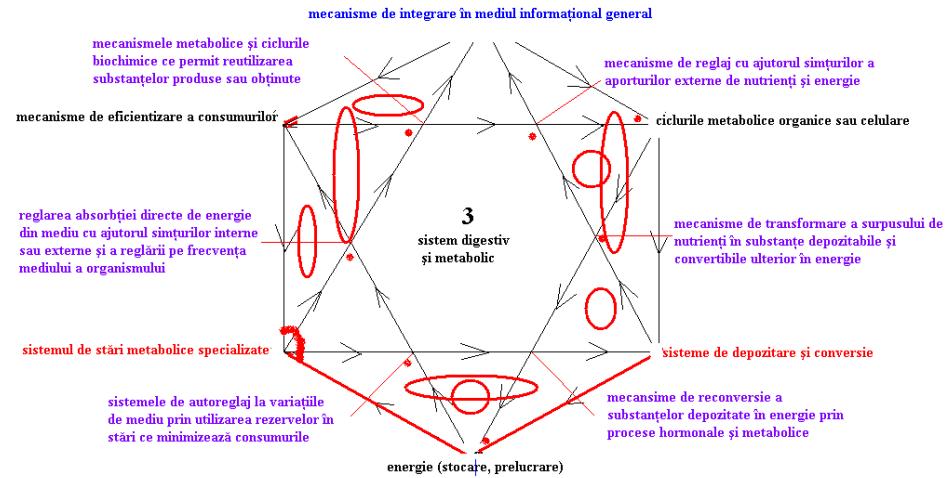
related to the coherent space of information, metabolism and sustainability.

## FUNCTIONAL SCHEMES OF THE LIVING ORGANISMS

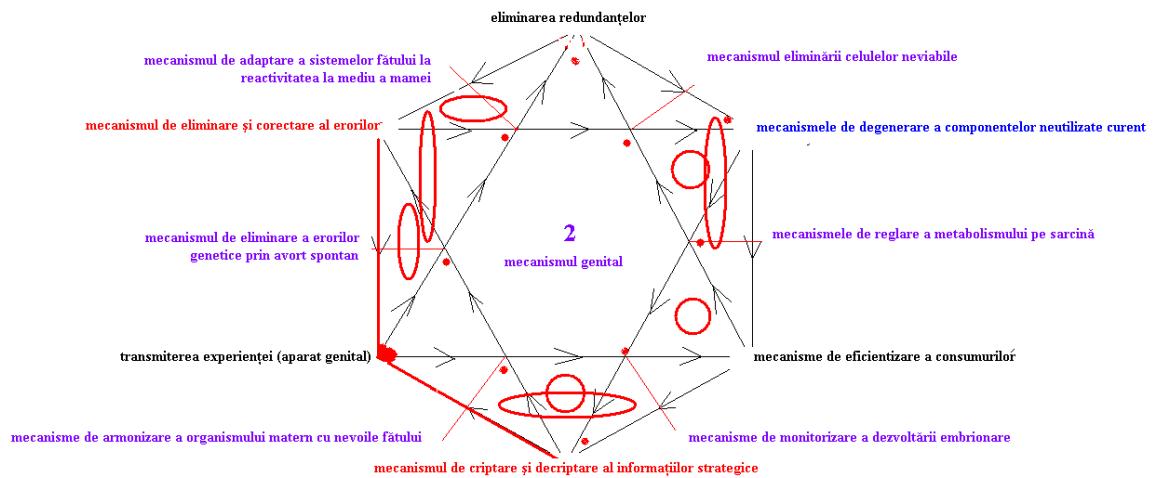
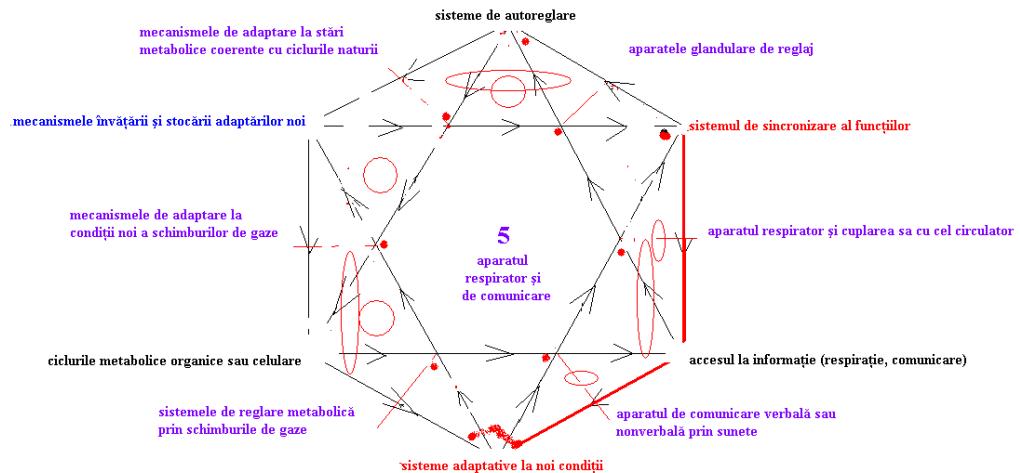


Scheme of general functionalities

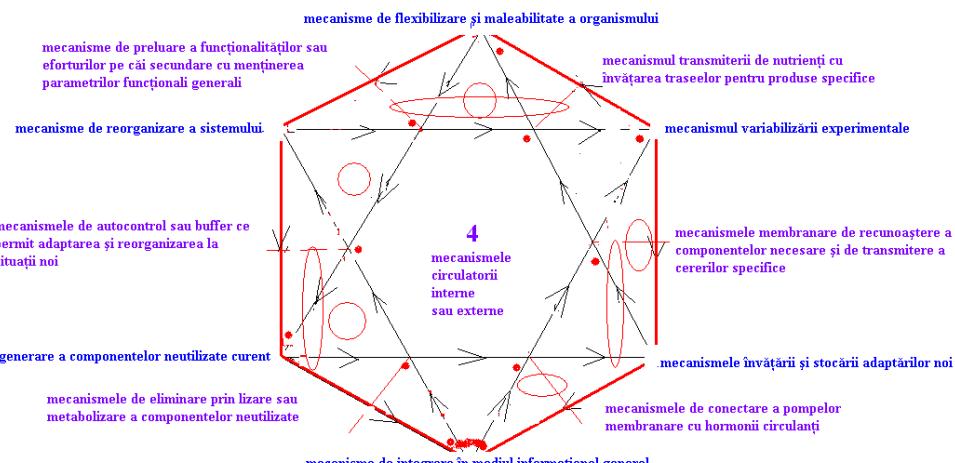
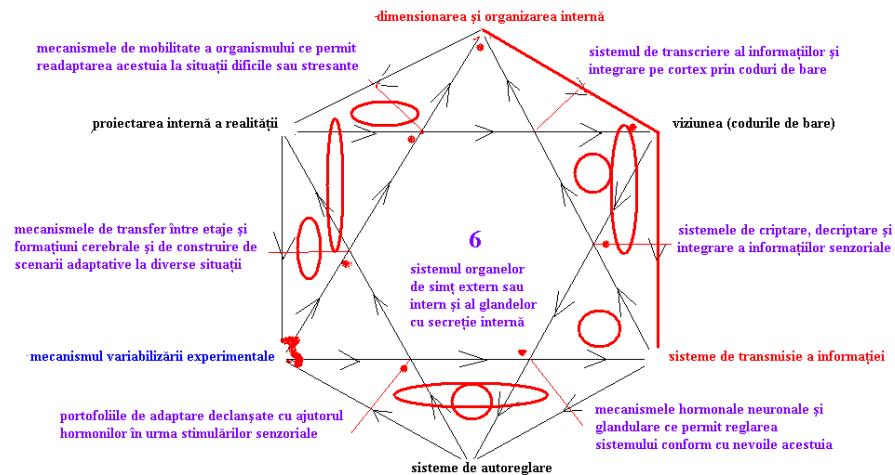




4



5



## Semantics

The development of the complexity of the communication occurs through the development of the complexity of the informational structures that generate clusters of phenomena with specific logical dimensions, but formed from different elements that complement each other within the structure of the clusters.

On each level of complexity specific patterns appear that do not differentiate the elements from the previous level. This phenomenon is the one that permanently generates the dynamics of the universe that

seeks its necessary piece from an identifiable package, in order to achieve the form of balance or continuity.

The semantics that is identifiable on different levels generate the collaboration through communication between the different components, as well as the generation of structures of ecological type, which are maintained by the help of phenomena of dissipative type.

Liskov's principle of substitution applies to all levels in all cases, each element having specific characteristics that make it useful to the system as a whole. The applications of semantics can be extremely diverse:

-from the role of the individual in society to the role of a being of a species within the biotope to which it belongs and the biotope within the ecosystem to which it belongs.