

Materials of the Conferences

“THE CUPOLA ALGORITHM” DATA AND “THE MODULATION-37” THE NATURAL SCIENCES ASPECT AND THE USING FOR ANALYSIS OF ANCIENT LAYOUTS

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The measure and proportional analysis of the historical monuments is probably the most famous problem in the historical, archeological, metrological and architectural researches from antiquity to nowadays. Such names as Alberti, Choisy, Le Corbusier, Dürer, Gioltovsky, Hambidge, Palladio, Plato, Rybakov, Vioillet-Le-Duc, Vladimirov, Vitruvius, Zeising and many others may be mentioned in this connection. This article is devoted to the same questions. The developed original methodology is based on the specific integer data having sacral origins. These data were discovered by the author as a result of analysis of some well known integer archetypes from European and Asian traditional cultures (they are sacral integers “dalkha” from Tibet mythology; sacral Moon days numbers devoted to Lu-Ban, the China divinity-protector of carpenters and builders; and, especially Orthodox “cupola canon”, including the data *1, 2, 3, 5, 7, 9, 13*). That’s why we named the integer process, generating these data, “The Cupola Algorithm”. The continuation of the sequence was produced with addition of 2^n to the previous term, thrice without changing this addend, and increasing n by 1 after every third step, and so on. So, the degree of 2 was constant for every 3 steps and was increased before every 4-th step. The result is: *1, 2, 3, 5, 7, 9, 13, 17, 21, 29, 37, 45, 61, 77, 93, ...*

Indicated sequence has some noteworthy properties, but the most interesting one is its coming to the data of the Titius-Bode rule, with very simple procedure: it’s enough to add 7 to every third term: $3+7=10$ (Earth); $9+7=16$ (Mars); $21+7=28$ (“Phaeton”); $45+7=52$ (Jupiter), etc.. There are some reasons to take note of the 11-th term 37 (look through our previous published works), for instance to

compare it with the sacral quality of Burma divinities called “nats”. These considerations allow us to suppose existence of the integrated ancient module-unit, which was equal to the simple (base) unit multiplied by 37 (this measuring principle named “The Modulation-37”). These regularities were used in some executed researches, concerning the measures and proportional characteristics of the number of ancient layouts (Babylon, Great Pyramids in Gizeh, Athens and others), with the aid of special elaborated program modules. Foot was used as the base unit. Founded, as a result, “chains”, “trees” and “loops” of dimensions have the layouts significance and the logic interconnections in the Cupola Algorithm and Modulation-37 sense, so our analysis methodology may be declared as a quite adequate.

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COMPETENCE - BASED APPROACH IN HIGHER SCHOOL EDUCATION¹

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The problem of exploration of the structure of inner essence of notion “competence”, defining the key and special kinds of modern specialists’ competence is an actual, vital and perspective today. Firstly thanks to the fact that nowadays labor market demands not only to knowledge of specialists but to their competence.

If seems to us that joining Russia to Bologna agreement is also an important argument, as it determines necessity of using common language, terminology with help of

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