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Deepening to Antikythera mechanism via its interactivity

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Abstract

As it can be concluded by the researchers so far, Antikythera mechanism was a complicated device and was mainly used as an astronomical multi tool, predicting the most known celestial events of that era. Due to the corrosion, after all these years trapped in a shipwreck, many gears of the mechanism have lost their form and consistency or a significant number of parts of the mechanism have been lost. So, for many years, efforts for mechanism reconstruction have been attempted. Simulating the mechanism is the key to understand its function. "... it is very appropriate to use a modern date computer simulation for validating the functional description of the machine ...," [1](M. Roumeliotis, 2012). Moreover the development of the 3D computer graphics software, inspired for virtual models and simulations of mechanism. Understanding the function of the Antikythera mechanism, in conjunction with the astronomical indications that the constructor managed to perform, could be the key of revealing all possible combinations of surviving gears, or the prediction of the missing parts. Aiming at this, a project was started. Taking in mind the complexity of this device, the project was divided in several parts such as: a) Extensive data collection in mathematical and astronomical resources b) 3d modelling in CINEMA4D¹, c) Animation

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¹3D modeling, animation and rendering application developed by MAXON Computer

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