

THE ANTIKYTHERA MECHANISM: ANCIENT TO CONTEMPORARY

<u>David Edgerton:</u> Precisely because of the fecundity of invention there usually have been comparable alternatives. There were computing machines before electronic computers. Punched-card machines were used for large-scale data processing, mathematical calculations were done with teams of 'computers' calculating with machines, often electric ones. Slide-rules were important tools in the design workshop – the large industrial versions were far removed from those for school use. Digital electronic computers were preceded by mechanical analogue computers, from tide predictors to differential analysers.... In choosing one technology, society was necessarily resisting many 'old' and 'new' alternative technologies. In that sense, many, perhaps most, technologies fail. However, some new technologies were indeed often additions to existing, alternative technologies. The bomber did not do away with armies and navies; the digital computer did not spell the end of the analogue computer until the 1960s.¹

ART + THEORY PLATO CONTEMPORARY proposes the *Pathways to The Stars* Program with main reference to the extraordinary narrative of the Antikythera Mechanism International Research and the obliging participation of its select Contemporary Team. Unexpectedly salvaged from the depths of the sea almost a hundred and twenty years ago, the majorly scattered and wrought, many fragile fragments of this important ancient piece of science and engineering presented everyone involved in their recovery and perplexing reconstruction hypotheses with unique enigma. Painstaking and continuous, as possible by institutional funding and individual voluntary effort, the wide inter-multi-disciplinary research investigating the mystery object brought about great instinctive, insightful and inventive Theory and the complex replica structures that we know of today.

^{1.} Edgerton, David *THE SHOCK OF THE OLD, TECHNOLOGY AND GLOBAL HISTORY SINCE 1900*, Oxford University Press, 2011, p. 26.

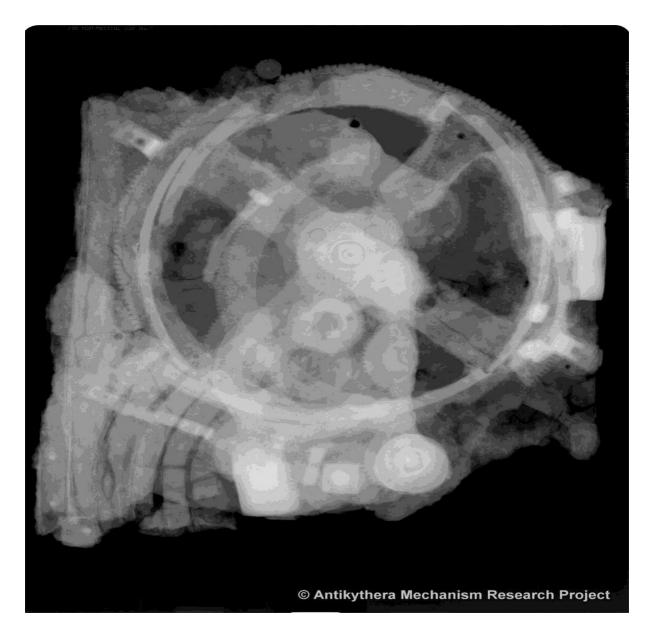
Notably, the Mechanism's analyses during the last century provided with two levels of interpretation:

A. Firstly, the actual and original design-production object was found to be carrying dual value:

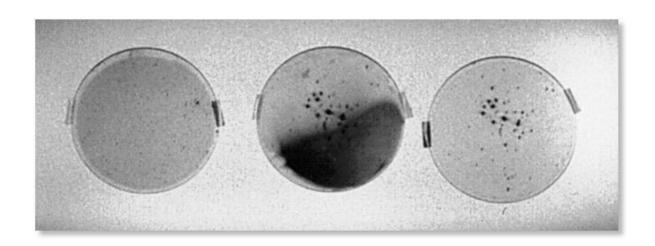
<u>Aa.</u> Scientific: in the scrutinised mapping of the, by the era of its making, total astronomical knowledge, amassed in intergenerational and multinational strata of Sky observation and Earth geography, in the then available means. Thus forming the earliest known computer-precise system of lengthy calendar time projections (prominently the Saros periods and other), as functioning portable, mechanically-geared appliance: the Mechanism may have rendered safe long-distance navigation and travel for several hundred years. The Modern analytico-synthetical discourse between archaeology and the various sciences involved established the Antikythera Mechanism's sophistication within such scientific value, not only in antiquity but, by the device's systemic resurfacing in similar astronomical and time apparatuses in the late medieval times, after a prolonged mass-culturally selective absence, beyond, onward in decisive pioneering of modern and contemporary Time and diverse computing technology.

And:

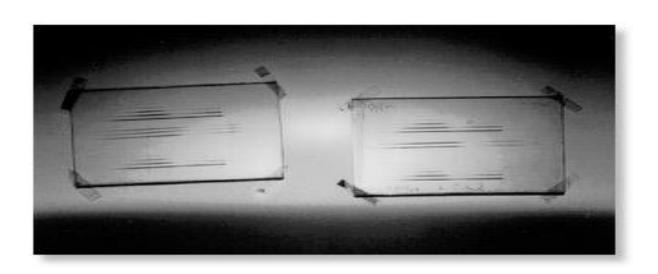
<u>Ab.</u> Religious: in the motifs of the astrological Zodiac, nominally-narratively described in the Mechanism as the specific sole star-system in the Sky the human perception by surveillance and measurement of which believed to be discovering Universal-Divine Movement Cycles, thought to be determining the World's fates. The Antikythera Mechanism presented States and Individuals with prescient calculations that harnessed Cosmic Destiny to mortal invention, in which numbers and words assembled meanings toward the species' survival. The multiplex latest hundred-and-twenty years' research discourse forever abandoned, by definite evolved astronomical and overall scientia scientiarum context, the device's archaic astrological-religious beliefs, maintaining strictly archaeological examen depth of this particular status.



<u>B.</u> On a second, self-establishing method level, the Modern and Contemporary anatomy of the Mechanism delivered staple intelligence on a multitude of enduring Human characters, which, having taken a leap in our civilisational beginnings, ensue to define us to our days. The aporia and observation, calculative ability, scientific, geometric, mathematical and language abstractions; our need for creative beliefs on which to base wild and surrendering imaginative theorems and risk or safer predictions, our tendency to winnow vast recorded experiential possibility into maximal probability of verity and to construct transvaluational machines to archive and exploit as big a majority as possible of the previous toward inventive production and its dissemination; this ownership of vision, truth, digit, letter and dexterity in perennial councils between magic and reason, proved in the Antikythera Mechanism the Time and rest continuity of our Humanity's inherent, askance, to cohesive or not, poetic elements.



MICHAEL WENYON & SUSAN GAMBLE The Stars, Edinburgh, circa 1970 1994 Hologram © Wenyon & Gamble



MICHAEL WENYON & SUSAN GAMBLE

The Colour of the Stars, Edinburgh, circa 1940
1994

Hologram
© Wenyon & Gamble

Remarkably, in Contemporaneity, post-Cicero, Galileo and Kepler, post-Newton and Einstein, surviving in the aeon of stunning light quantum and space science data, nuclear empowerment, super-computers, digital imaging, directly transformative brain computer interferences (BCIs), interlinked artificial intelligence (AI) and virtual realities (VR), as well as the consequent interpretations of its diachronic self-epistemology: massively incorporating the initial Humanity-and-Universe wonderment in science, the Mechanism now surpasses material function.

Obsolete by actual use, its explanative demonstration becomes fully abstract within the associative tales that it generates of Theory in the historical, creative, scientific and wider other collectives. In this type of contributing ideal research, the Mechanism's ancient fragments get invested in prototypical Art-values and the weaving Mechanism story becomes a meta-dialogue reminiscent of Kurt Schwitters' *Merz*: started in the artist's pockets' nostalgic gatherings of modest detritus of life, to shape and develop into other authentic discovered-invented entity, into something grasped as separate and precious and beneficial and held quietly and unpossessively in the attention.²

Currently travelling from Earth to distant parts of the Universe, perhaps Humanity, in its consciousness of the uncertainty in the relativity of physics, where it is increasingly our intuitions of perceptions that spawn our deductions on experience and appertain to the infinite-dimensional human graduation in *The Objecthood's* lines of passages to ideas, especially to significant human intellect and craft in superb invention and employment of civilisation, to equalise superstition in precision, to exert knowledge and application on the surrounding natures and to record successfully what has been and could be intelligible:

Perhaps, in heft reality, most immediate stem of the bewitched, enthralled and enlightened human eye in the human mind and soul that lead the human hand to nest and cradle, the Antikythera Mechanism merits to be Ark-jewel of the innovative genus on the bank of one more perilous Rubicon crossing: where the available enclosed-rhapsodic gaming theatre of technology and the thoughtless cipher-automation of rigid reproductive solutions may, rather than aid, compete with Humankind's complete-flowing cognizance steering in vital novel navigations.

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^{2.} Hetherington, Paul (Ed.) ARTISTS IN THE 1990s, THEIR EDUCATION AND VALUES, ISSUES IN ART AND EDUCATION, VOLUME, Tate Gallery/Wimbledon School of Art, 1991-1992, p. 63.