

Review of: "Early Renaissance Concepts of Time and the Invention of Mechanical Clocks"

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Potential competing interests: No potential competing interests to declare.

The paper is highly interesting and covers a topic that has intrigued me for quite some time. It is well-written and provides a comprehensive overview of some ancient clock types. I would like to suggest some possible improvements for the author to consider.

The author claims, "This included the Newtonian concepts of absolute space and time as opposed to Aristotle's notion of time as defined by motion." I have explored this topic in some depth and would like to point out that the concept of absolute time may have been introduced much earlier by the atomists. The term 'atomic' originally meant 'indivisible,' and an indivisible time interval is likely to be considered absolute. I have discussed this further in my work, where the author will find multiple interesting references.

You may find it useful to read the following paper, particularly the citation from Saint Augustine:

https://www.scirp.org/pdf/ojm2024142_31220150.pdf

However, it's important to note that the Catholic Church, at some point, became extremely critical of atomism, even introducing the death penalty for its proponents. As a result, the concept of atomic time (indivisible time units) was removed from many texts.

Please refer to the following references for further insight:

- Bonner, G., et al. (1995). *Sermons: The Work of Saint Augustine, a Translation for the 21st Century* "Explaining the Atom and the Twinkling of an Eye in Which the Dead Are All Going to Rise Again," Sermon Number 362, Page 256. New City Press, New York.
- Doyle, C. (2021). *Atoms and Time I*. In Zilioli, U. (Ed.), *Atomism in Philosophy*. Bloomsbury Publishing, New York, pp. 216-223.

I suggest discussing this topic in more detail, as it's possible that Newton's ideas about absolute time (which he equated with indivisible or atomic time) were influenced by earlier sources. This concept appears in the earliest surviving texts of the original Greek New Testament, although it has clearly been incorrectly translated in later versions (likely due to part of the Catholic Church's hostility toward atomism at some point, as well as recent authors not knowing or thinking clearly about the original meaning of the word "atom"). Saint Augustine, for instance, was quite clear on what atomic time meant. Until Dalton's work and the development of the periodic table, the term 'atom' referred to something indivisible, as I

discuss in my paper.