

## Ian Assersohn's Ionian Mass - The Names

The third movement of Ionian Mass, *Truth*, mentions a number of scientists and thinkers in (more or less) historical order.

The list is purely partial and subjective and scientists were chosen as much for the rhythm and resonance of their names as for their scientific contributions. Many other names could, of course, have been chosen.

The following list briefly explains who each of them was.

**Thales** of Miletus (c. 624-546 BCE). Pre-Socratic Greek philosopher, mathematician and astronomer. Considered the first Greek philosopher and possibly the first person in Western civilisation to attempt to explain the natural world without recourse to mythology.

**Archimedes** (c.287 - c.212 BCE). Greek mathematician, engineer, inventor and astronomer from Syracuse. Considered one of the greatest scientists of classical antiquity.

**Galileo Galilei** (1564 - 1642). Italian polymath and a central figure in the scientific revolution. considered the father of modern observational astronomy.

**Johannes Kepler** (1571 – 1630). A key 17th century astronomer who set out the laws of planetary motion and whose work laid the foundation for that of Isaac Newton.

**Isaac Newton** (1642-1726). English mathematician, astronomer, theologian, author and physicist who, among other things, laid the foundations of classical mechanics and formulated the laws of motion and gravitation.

**Edward Jenner** (1749-1823). English physician and scientist and the pioneer of the world's first vaccine, for smallpox.

**Michael Faraday** (1791 - 1867). English scientist who discovered the principles underlying electromagnetic induction, diamagnetism and electrolysis.

**Charles Darwin** (1809 - 1882). English naturalist, geologist and biologist who, with Alfred Russel Wallace, laid out the foundation of evolutionary theory.

**Louis Pasteur** (1822 - 1895). French biologist, microbiologist and chemist who discovered the principles of vaccination, microbial fermentation and pasteurisation.

**James Clerk Maxwell** (1831-1879). Scottish scientist who formulated the classical theory of electromagnetic radiation, bringing together electricity, magnetism and light in a single theory for the first time.

**Nikola Tesla** (1856-1943). Serbian inventor, electrical engineer, mechanical engineer, physicist and futurist best known for his design of the modern AC electricity supply system.

**Marie Curie** (1867-1934). Polish physicist and chemist who conducted pioneering research on radioactivity.

**Albert Einstein** (1879 - 1955). German theoretical physicist who developed the special and general theories of relativity.

**Otto Hahn** (1879 - 1968). German chemist and pioneer in the fields of radioactivity and radiochemistry. Considered the father of nuclear fission.

**Niels Bohr** (1885 - 1962). Danish physicist and philosopher who laid out the foundations for the understanding of atomic structure and quantum theory.

**Edwin Hubble** (1889 - 1953). American astronomer who played a crucial role in establishing the fields of extragalactic astronomy and observational cosmology.

**Paul Dirac** (1902 - 1984). English theoretical physicist who made fundamental contributions to the early development of quantum mechanics and quantum electrodynamics.

**Alan Turing** (1912 - 1954). English computer scientist, mathematician, logician, cryptanalyst, philosopher and theoretical biologist who was highly influential in the development of theoretical computer science.

**Ernest Rutherford** (1871 - 1937). New Zealand-born British physicist considered the father of nuclear physics. Discovered the concept of radioactive half-life.

**James Watson** (b. 1928). American biologist, geneticist and zoologist best known as one of the co-discoverers of the structure of DNA, along with **Rosalind Franklin** (1920 - 1958). English chemist and x-ray crystallographer and **Francis Crick** (1916 - 2004). British molecular biologist, biophysicist and neuroscientist.

**Stephen Hawking** (1942 - 2018). English theoretical physicist, cosmologist and author. Known for his work on black holes and on the implications of general relativity.