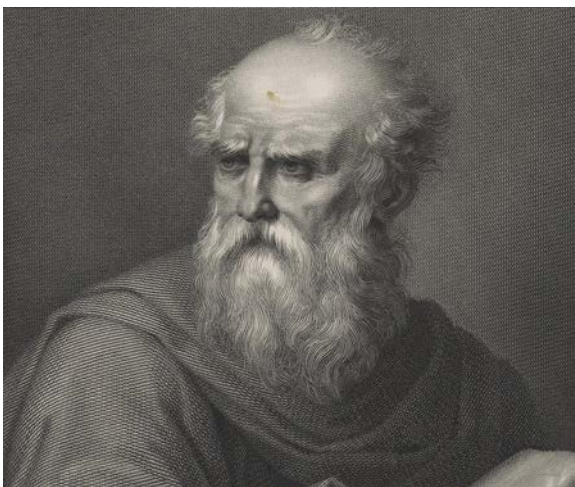


Six Polymaths

Romana 04-25-2020

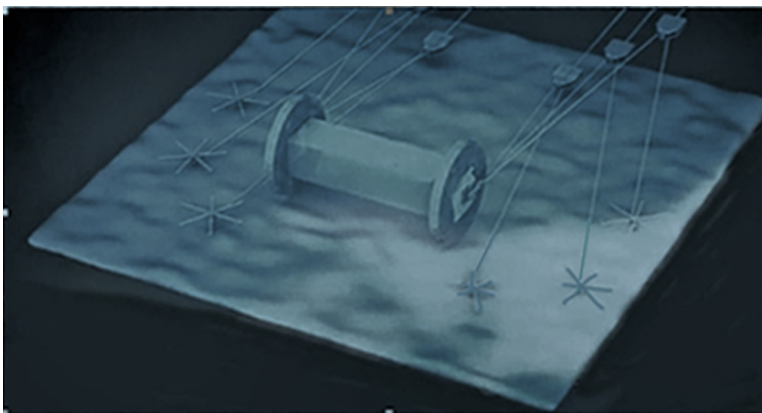
Recently, I discovered that I seem to an amateur polymath. A polymath is a person who is skilled or knowledgeable in many subjects, such as art, writing, poetry, science, history, religion, philosophy, engineering, technology, mathematics, and so forth. Though I did not grow up this way, I have developed an encyclopedic knowledge of many disciplines as I matured.

The term, *polymath*, originated in 1621. It was used to describe unspecialized scholars during the Renaissance. It has been said that there are no more polymaths, but I think the non-occurrence of such individuals in modern times is due to the lack of recognition.



Marcus Vitruvius Pollio was a Roman author, architect, civil engineer, military engineer, and polymath who lived from 70 BCE to 15 CE. Many of his engineering texts are still extant. The Roman government used his techniques to move 840 ton stone blocks from place to place without the help of extraterrestrials.

Vitruvius used a combination of ropes, wheels, pulleys, and capstans to move the stone blocks.





Hypatia was a Hellenistic Neo-Platonist philosopher, astronomer, and mathematician, who lived in Alexandria, Egypt, then part of the Eastern Roman Empire. She was the one of the earliest known woman polymaths.

She was born between 350 and 370, and died in March 415. Though she characterized herself as a pagan, she was tolerant of all religions. She was known to be a great teacher and a wise counselor. She was unfairly implicated in a political struggle, so she was murdered by a mob of Christians led by a lector named Peter. She was innocent, but the Catholic Church wanted her eliminated.

As a martyr, she became associated with women's rights and feminism over the intervening centuries.



Leonardo da Vinci, is perhaps the most famous Renaissance person. His interests were simply off the charts, making him a consummate polymath. He was born in 1542. His interests included invention, drawing, painting, sculpture, architecture, science, music, mathematics, engineering, literature, anatomy, geology, astronomy, botany, paleontology, and cartography. Some say he may have been Asperger too, because of his excessive attention to detail, but that is speculation.

Leonardo is revered for his technological ingenuity. He conceptualized flying machines, a type of armored fighting vehicle, concentrated solar power, an adding machine, and the double hull. Some of his smaller inventions entered the world of manufacturing unheralded, such as an automated bobbin winder and a machine for testing the tensile strength of wire. He made substantial discoveries in anatomy, civil engineering, geology, optics, and hydrodynamics, but he did not publish his findings and they had little to no direct influence on subsequent science.



Emilia Lanier (also spelled Aemilia or Amelia Lanyer), née Bassano, was a woman English poet in the early modern era. She was born in 1569 to a Jewish family. She was dark-skinned and often described as black. Emilia had grasp of many subjects.

Today, she is controversial, because many think she is the true author of Shakespeare's works. Male scholars hate this idea and have spent a lot of time discrediting her. Yet, there are many lines in Shakespeare's works that could only have been written by someone schooled in Judaism. Shakespeare had never been educated in the breadth of his compositions.

A lot of time has been spent trying to find a man who actually did all the writing. There was no reason for a man not to take credit; however, a woman could never have been publically listed as the true author.



Thomas Jefferson was born in 1743. He had a grasp of a great many subjects, being renowned as a statesman, diplomat, lawyer, architect, and philosopher. He was a *Founding Father* and served as the third president of the United States. He was the principal author of the *Declaration of Independence*. As president, Jefferson pursued the nation's shipping and trade interests against Barbary pirates and aggressive British trade policies. He also organized the *Louisiana Purchase*, almost doubling the country's territory, as a result of negotiations with France.

His legacy is not without controversy, since he possessed slaves and may have had a sexual relationship with his slave Sally Hemings, a mixed-race woman who was a half-sister to his late wife, and with whom he may have fathered at least one child.

Even less notable, Jefferson initiated the first forced migration of Native Americans to the Louisiana territory.

Only one other president, Theodore Roosevelt, qualifies as a polymath. Presidents are grossly under-represented.



Hedy Lamarr was born in Austria in 1914. Recently, she was featured in the time-travel series, *Timeless*.

Hedy starred in more than 30 movies over a span of 28 years. Her first film was controversial. *Ecstasy* was a 1933 Czech erotic romantic drama. It is perhaps the first non-pornographic movie to portray sexual intercourse and female orgasm, although never showing more than the actors' faces.

At the beginning of World War II, Lamarr and composer George Antheil developed a radio guidance system for Allied torpedoes, intended to use frequency-hopping spread spectrum technology to defeat the threat of jamming by the Axis powers. Although the US Navy did not adopt the technology until the late 1950's or early 1960's, various spread-spectrum techniques are incorporated into Bluetooth technology and are similar to methods used in legacy versions of Wi-Fi. She also helped to improve aviation designs for Howard Hughes while they dated. Recognition of the value of their work resulted in Lamarr and Antheil being posthumously inducted into the National Inventors Hall of Fame in 2014.

Recent Polymaths

Recent polymaths include:

- Edward Heron-Allen (1861–1943), Lawyer, writer, violin builder, marine zoologist, meteorologist, historian, archaeologist, Buddhist philosopher.
- W. E. B. Du Bois (1868–1963) was an author, sociologist, historian, economist, and civil rights activist. He was the first African American to graduate from Harvard University where he earned his PhD in History. He was a professor of history and economics at Atlanta University, the head of the NAACP in 1910, founder, and editor of the NAACP's journal *The Crisis*.
- Walter Russell (1871–1963) painter, sculptor, architect, philosopher, and physicist. He believed mediocrity is self-inflicted, and genius is self-bestowed.

- Bertrand Russell (1872–1970) was a British philosopher, logician, mathematician, historian, pacifist, and social critic. In 1950 he was awarded the Nobel Prize in Literature.
- Albert Schweitzer (1875–1965), German theologian, philosopher, musician, physician, humanitarian, and activist. He won the 1952 Nobel Peace Prize, and spent the last years of his life campaigning against nuclear weapons.
- Howard Hughes, Jr. (1905 – 1976), American aviator, engineer, industrialist, film producer, film director, philanthropist, and one of the wealthiest people in the world.
- Jacques-Yves Cousteau (1910–1997), French oceanographer, naval officer, explorer, ecologist, filmmaker, scientist, photographer, author, and inventor. He co-developed the aqua-lung.
- Herbert Simon (1916–2001), American political scientist, psychologist, computer science, philosophy of science, a leader in artificial intelligence, and Nobel Prize winner in Economics. He wrote almost a thousand publications.
- Rowan Williams (1950 -), Archbishop of Canterbury, theologian, poet, and speaks 12 languages. Views on creationism: His believes that creationism should not be taught in schools as an alternative to evolution. He said, "I think creationism is, in a sense, a kind of category mistake, as if the Bible were a theory like other theories..., it's not what it's about."
- Julie Taymor (1952 -) is an American director, actor, set designer, costume designer, and puppeteer. She has two Tony Awards, the Drama Desk Award for Outstanding Costume Design, an Emmy Award, and an Academy Award nomination for Original Song.
- Elon Reeve Musk (Born 1971) Elon Musk is a world-renowned intellectual powerhouse with a penchant for inventing and developing products that help humanity to live in a more environmentally conscious and sustainable manner. With a vast knowledge and plethora of abilities across many different fields, his achievements and contributions to modern-day society seem almost limitless. His talents extend to computer science, programming, software development, physics, chemistry, engineering, rocket science, automotive design and materials science. Companies he has founded, helped to found or led extensively, include, PayPal, SpaceX, Tesla Motors and SolarCity.
- Erez Lieberman (Born 1980) A relatively young addition to this list is Erez Lieberman. An American research scientist, he is active across multiple fields including biology, computer science, history, linguistics and sociology. He has published extensively in the fields of nature and science and holds degrees in physics, mathematics and history.