

Here is a list of Renaissance Men and Polymaths. Unfortunately there are no women listed. I am positive there must have or are some women who would qualify.

Renaissance Man and, less commonly, homo universalis (Latin for "universal man" or "man of the world") are related and used to describe a person who is well educated or who excels in a wide variety of subjects or fields.[1] The idea developed in Renaissance Italy from the notion expressed by one of its most accomplished representatives, Leon Battista Alberti (1404–72): that "a man can do all things if he will." It embodied the basic tenets of Renaissance Humanism which considered man empowered, limitless in his capacities for development, and led to the notion that people should embrace all knowledge and develop their capacities as fully as possible. Thus the gifted men of the Renaissance sought to develop skills in all areas of knowledge, in physical development, in social accomplishments and in the arts.

Polymath (Greek: πολυμαθής, polymathēs, means "having learned much")[1] is a person whose expertise spans a significant number of different subject area. In less formal terms, a polymath (or polymathic person) may simply be someone who is very knowledgeable. Most ancient scientists were polymaths by today's standards.

## LIST OF RENAISSANCE MEN

The following people represent prime examples of "Renaissance Men" and "universal geniuses", that is "polymaths" in the strictest interpretation of the secondary meaning of the word. The list is organized by date of birth.

- § **Imhotep**, 2650–2600 BC, was an Egyptian polymath,[2] who served under the Third Dynasty king, Djoser, as **Vizir** (or **Chancellor**) to the pharaoh and high priest of the sun god Ra at Heliopolis. He is considered to be the first engineer, architect and physician in history known by name. The full list of his titles is: Chancellor of the King of Egypt, Doctor, First in line after the King of Upper Egypt, Administrator of the Great Palace, Hereditary nobleman, High Priest of Heliopolis, Builder, Chief Carpenter, Chief Sculptor and Maker of Vases in Chief. Imhotep was one of very few mortals to be depicted as part of a pharaoh's statue. He was one of only a few commoners ever to be accorded divine status after death.
- § **Marcus Tullius Cicero**, 106 BC–43 BC, Roman statesman, lawyer, humanist, republican, letterist, constitutionalist, politician, philosopher, translator, political theorist, orator, linguist and prose stylist.[3]
- § **Zhang Heng** (78–139); a Han Dynasty Chinese official, scholar of history and philosophy, poet, mathematician, astronomer, inventor, geographer, cartographer, painter, and sculptor who invented the world's first water-powered armillary sphere and the world's first seismometer to detect the cardinal direction of distant earthquakes; he is often described as a polymath.[4][5][6][7]
- § **Zhuge Liang** (181–234)[8] was a Strategist, Inventor, Engineer, Scholar, Astrologer, State man and chancellor of Shu Han during the Three Kingdoms period of Chinese history. He is often recognised as the greatest and most accomplished strategist of his era.[9] His name – even his surname alone – has become synonymous with intelligence and strategy in Chinese culture.
- § **Abbas Ibn Firnas (Armen Firman)** (810–887), an Andalusian Berber aviator, inventor, engineer, technologist, chemist, humanitarian, musician, physician and poet; "Ibn Firnas was a polymath: a physician, the first to make glass from stones (quartz?), a student of music, and inventor of some sort of metronome"; [10] "had he lived in the Florence of the Medici, [Abbas ibn Firnas] would have been a "Renaissance man"."[11]
- § **Chavundaraya** (940–989) (also called Chavundaraya) was a military commander, poet and a minister in the court of the Western Ganga Dynasty of Talakad (in present day Karnataka, India). A person of many talents, in 982 he commissioned the Gomateshwara, a monolithic sculpture in Shravanabelagola, an important place of pilgrimage for Jains. He was a devotee of the Jain Acharya Nemichandra and Ajitasena Bhattaraka and was an influential person during the reign of Kings Marasimha II, Rachamalla IV, and Rachamalla V (Rakkasa Ganga). A courageous commander with the title of Samara Parashurama, he found time to pursue his literary interests as well and became a renowned writer in Kannada and Sanskrit.[12][13] He wrote an important and existing prose piece called Chavundaraya Purana (also known as Trishasthi Lakshana Purana) in Kannada (978) and Charitrasara in Sanskrit. In his writing, he claims he was from the Brahmakshatriya Vamsa (Brahmin and converted to the Kshatriya caste).[14] He patronised the famous Kannada grammarians Gunavarma and Nagavarma I and the poet Ranna whose writing Parusharama Charite may have been a eulogy of his patron.[12] Because of his many lasting contributions, Chavundaraya is an important figure in the history of medieval Karnataka.
- § **Abhinavagupta** (fl. 975–1025);[15] an Indian philosopher, literary critic, Shaivite, aesthetist, musician, poet, dramatist, dancer, exegetical theologian, and logician; "the great Kashmiri philosopher and polymath, Abhinavagupta".[15]
- § **Acharya Hemachandra** (1089–1172); an Indian scholar, poet, linguist, grammarian, historian, philosopher, and prosodist; "the great polymath Hemacandra"; [16] "Hemacandra (1089–1172) was one of the great polymaths of medieval India." [17]
- § **Trotula of Salerno** 11th to 12th century Salerno, south Italy. Chair of Medicine, Salerno Medical School responsible for alleviating women's suffering in illness and the specific medical needs of women. Physician, obstetrician, gynaecologist, medical teacher, writer, health planner and experimenter, responsible for major advances in female medicine, public health, pharmacology and medical teaching methods, as well as generally in science. Trotula became famous for establishing the distinct field of women's health, and teaching men about women's health. She wrote books used for many centuries about this area, most significant was *Passionibus Curandorum*, sometimes called *The Book of the Diseases of Women* or *Trotula Major* and also *De Ornatu Mulierum* known as *Trotula Minor*. These works discuss menses, conception, pregnancy, childbirth, and general issues of illness and treatments. In Trotula's view men also suffered fertility problems. She promoted and experimented with opiates to numb pain during childbirth.[18]
- § **Ibn al-Haytham (Alhazen)** (965–1039), an Iraqi scientist, physicist, anatomist, physician, psychologist, astronomer, engineer, inventor, mathematician, ophthalmologist, philosopher, and Ash'ari theologian; "a devout, brilliant polymath";[19] "a great man and a universal genius, long neglected even by his own people";[20] "Ibn al-Haytham provides us with the historical personage of a versatile universal genius." [21]
- § **Abū Bakr Muhammad ibn Zakarīya al-Rāzī (Rhazes)** (865–925), Persian[22][23] alchemist, chemist, physician, philosopher and scholar. He is often referred as "probably the greatest and most original of all the Muslim physicians, and one of the most prolific as an author".[24] He made fundamental and enduring contributions to the fields of medicine, alchemy, music, and philosophy, recorded in over 184 books and articles in various fields of science. He was well-versed in Persian, Greek and Indian medical knowledge and made numerous advances in medicine through own observations and discoveries.[25]
- § **Abū Rayhān al-Bīrūnī** (973–1048), a Persian scientist, physicist, anthropologist, astronomer, astrologer, encyclopedist, geodesist, geographer, geologist, historian, mathematician, natural historian, pharmacist, physician, philosopher, scholar, teacher, Ash'arite theologian, and traveller; "al-Biruni was a polymath and traveler (to India) who introduced Indian scientific knowledge & thought to the Middle East & the West, making contributions in mathematics, geography and geology, natural history, calendars and astronomy";[26] "al-Biruni, a scholar in many disciplines – from linguistics to mineralogy – and perhaps medieval Uzbekistan's most universal genius." [27]
- § **Abū Alī ibn Sīnā (Avicenna)** (980–1037), a Persian physician, pharmacologist, philosopher, metaphysician, aromatherapist, astronomer, chemist, Hanafi jurist and theologian, physicist, scientist, and universalist; "The Persian polymath-physician Avicenna";[28] "Avicenna (973–1037) was a sort of universal genius, known first as a physician. To his works on medicine he afterward added religious tracts, poems, works on philosophy, on logic, as physics, on mathematics, and on astronomy. He was also a statesman and soldier." [29]
- § **Ibn Rushd (Averroes)** (1126–1198), an Andalusian Arab philosopher, doctor, physician, jurist, lawyer, astronomer, mathematician, and theologian; "Ibn-Rushd, a polymath also known as Averroes";[30] "Doctor, Philosopher, Renaissance Man." [31]
- § **Amir Khusrow** (1253–1325 CE), an Indian Muslim scholar, he was a poet, inventor, mystic, writer, musician, linguist, soldier and historian.[32] Born to a Turkish-Afghan father and an Indian mother (the latter a native of Delhi) in Etah, North India he is best known for his poetry composed in Persian and Hindi (then called Hindustani) under the Delhi Sultans;[33] among his best known works were *The Tale of the Four Dervishes* and *Khamsa-e-Nizami* (or *Khamsa-e-Khusrau*) which includes the popular Indian classical romance *Majnun-Laila*. [34] He also spoke Arabic and Sanskrit. In 1285 Khusrow participated as a soldier in the war against the invading Mongols; he was taken prisoner, but he managed to escape. In 1301 when Ala ud din Khilji, the Delhi Sultanate Emperor, attacked Ranthambhor, Chittor, Malwa and other places, Khusrow accompanied the king in order to write chronicles. As a Sufi mystic he was a close aide of Nizamuddin Auliya, a famous Sufi Saint. In 1321 he wrote the *Tughlaqnama*, a history of the *Tughluq dynasty*. Khusrow is also known to have invented the classical Hindustani instruments the *Tabla* and the *sitar*. He is known for introducing *Qawali*, *Khayal* and *Tarana* types into Hindustani classical music. [35] [36]
- § **Ibn Khaldun** (1332–1406), an Arab social scientist, sociologist, historian, historiographer, philosopher of history, demographer, economist, linguist, philosopher, political theorist, military theorist, Islamic scholar, Ash'ari theologian, diplomat and statesman; "a still-influential polymath";[37] "in any epoch ibn Khaldun (1332–1406) would deserve the accolade Renaissance man, a person of many talents and diverse interests." [38]

- § **Nicholas of Cusa** (1401–1464); was a cardinal of the Catholic Church from Germany (Holy Roman Empire), a philosopher, theologian, jurist, mathematician, and an astronomer. He is widely considered one of the great geniuses and polymaths of the 15th century.
- § **Leone Battista Alberti** (1404–1472), painter, poet, medallist, philosopher, hydraulic engineer, cryptographer, including machine assisted encryption, musician, and architect, and writer-novelist.[39][40]
- § **Leonardo da Vinci** (1452–1519)[41][42] "In Leonardo Da Vinci, of course, he had as his subject not just an ordinary Italian painter, but the prototype of the universal genius, the 'Renaissance man,' ..."; "prodigious polymath... Painter, sculptor, engineer, astronomer, anatomist, biologist, geologist, physicist, architect, philosopher, humanist." [43] Leonardo's scientific accomplishments are often reduced to inventions (of which he made very many) or to speculation, and an adventurous spirit. Recent writing shows that he was in fact a serious and brilliant scientist, concerned with what today is called 'systems theory', or complex systems; but he devised scientific reasoning models for experimentation, and conducted experiments with validation procedures, all of which qualify him as a scientist in the true sense as well.[44] For the extraordinary and unprecedented range of his work, of which only a minority survives, he is justly considered by many the most diversely talented person, or, as Helen Gardner says "The scope and depth of his interests were without precedent... His mind and personality seem to us superhuman".[45]
- § **Michelangelo Buonarroti** (1475–1564), architect, sculptor, painter, poet, writer.[39][40]
- § **Baha' ad-Din al-`Amili**; a polymath[46] equally at ease in [philosophy](#), [mathematics](#), [astronomy](#), [architecture](#) and [poetry](#).
- § **Akbar the Great** (1542–1605);[47] an Indian Mughal emperor, "polymath", architect, artisan, artist, armorer, blacksmith, carpenter, construction worker, engineer, general, inventor, lacemaker, ruler, technologist, theologian, and writer.[47]
- § **Galileo Galilei** (1564–1642), "Italian scientist, mathematician, astronomer, physicist, and philosopher. He made fundamental contributions to many sciences such as motion, materials, astronomy; he adapted telescope devices to astronomical purposes. As a natural philosopher committed to accounts of the world in mathematical terms moved away from descriptive accounts of the material world to mathematical ones tested empirically by experiments devised according to scientific method and reasoning. He formulated laws on circular inertia, on falling bodies, and parabolic trajectories. Several of these launched the change in how motion was understood and studied and this was decisive in understanding the physical universe. Galileo was a true Renaissance man, excelling at many different endeavors, including lute playing and painting." [48] Galileo is considered by some to have been the true revolutionary (along with Descartes) of the so-called revolution in thought often called the Copernican revolution.[49]
- § **Blaise Pascal** (1623–1662) was a [French mathematician](#), [physicist](#), the first constructor of [mechanical calculators](#), [philosopher](#), [theologian](#), and one of the greatest masters of French prose. Not frequently described as polymath, as the word doesn't exist in French, he was, for instance, praised by [Chateaubriand](#), who said "There was a man who, aged 12, had rediscovered mathematics using rounds and bars; aged 16, written the deepest book on [conics](#) seen since Antiquity; aged 19, reduced to mechanical means a science which exists only in the mind; aged 23, found the weight of air, (...), then turned his thoughts towards God (...) giving its definitive shape to the language used later by [Bossuet](#) and [Racine](#) (...) This frightening genius was named Blaise Pascal" [50]
- § **Robert Hooke** (1635–1703) was an English [natural philosopher](#), architect and the foremost experimental scientist of the [English Restoration](#). He was at one point simultaneously [Gresham Professor of Geometry](#), curator of experiments to the [Royal Society](#) and surveyor to the [City of London](#) after the [great fire](#) of 1666. In addition to the law of elasticity for which he is primarily known he is regarded as the founder of the science of [microscopy](#), has a justifiable claim to have invented the pocket watch balance spring (also attributed to [Christiaan Huygens](#)), developed the world's first set of building controls, designed [The Monument](#), the [Royal College of Surgeons](#), [Bethlehem Hospital](#) and many of the [City churches](#) rebuilt by the [Wren partnership](#), helped [Robert Boyle](#) to develop his [gas law](#) and deduced that fossils were petrified organic matter and that gravity follows an inverse square law.
- § **Isaac Newton** (1643–1727) was an English [physicist](#), [mathematician](#), [astronomer](#), [theologian](#), [natural philosopher](#) and [alchemist](#). His treatise [Philosophiæ Naturalis Principia Mathematica](#), published in 1687, described [universal gravitation](#) and the three [laws of motion](#), laying the groundwork for [classical mechanics](#), which dominated the scientific view of the physical universe for the next three centuries and is the basis for modern engineering. In a 2005 poll of the [Royal Society](#) of who had the greatest effect on the [history of science](#), Newton was deemed more influential than [Albert Einstein](#). [51] "When we see Newton as a late Renaissance man, his particular addiction to classical geometry as ancient wisdom and the most reliable way of unveiling the secrets of nature, seems natural." [52]
- § **Gottfried Leibniz** (1646–1716); "Leibniz was a polymath who made significant contributions in many areas of physics, logic, mathematics, history, librarianship, and of course philosophy and theology, while also working on ideal languages, mechanical clocks, mining machinery..." [53] "A universal genius if ever there was one, and an inexhaustible source of original and fertile ideas, Leibniz was all the more interested in logic because it ..." [54] "Gottfried Wilhelm Leibniz was maybe the last Universal Genius incessantly active in the fields of theology, philosophy, mathematics, physics, ..." [54] "Leibniz was perhaps the last great Renaissance man who in Bacon's words took all knowledge to be his province." [55]
- § **Benjamin Franklin** (1706–1790); "The ultimate creole intellectual... A true polymath of the Enlightenment style, he distinguished himself on both sides of the Atlantic by researches in natural sciences as well as politics and literature." He was a leading author, political theorist, politician, printer, scientist, inventor, civic activist, publisher and diplomat.
- § **Mikhail Vasilyevich Lomonosov** (1711–1765) was a [Russian](#) polymath, scientist and writer, who made important contributions to [literature](#), [education](#), and [science](#). His spheres of interest were [natural science](#), [chemistry](#), [physics](#), [mineralogy](#), [history](#), [art](#), [philology](#), optical devices and others. He discovered the [atmosphere of Venus](#) during its [transit](#)[56] and proposed the idea of [conservation of matter](#). [57] Lomonosov was also a poet, who created the basis of the modern Russian literary language.
- § **Maria Gaetana Agnesi** (1718–1799) a great female polymath. Born in [Milan, Italy](#), she was only the second ever female university professor, a brilliant linguist, geometer, theology, logician, algebraist, mathematician and philosopher. [58] She wrote a book discussing differential and integral calculus. A child prodigy she spoke French as well as her native Italian from five years of age and in childhood also acquired Greek, Hebrew, Spanish, German and Latin. From age nine, she was delivering educated talks and later lectures, including a famous logical claim for the right of women to a full and equal education with men. Appointed by [Pope Benedict XIV](#) to [Bologna University](#) chair of mathematics. [59][60]
- § **Hiraga Gennai** (1728 – 1780) Edo period Japanese pharmacologist, student of Western studies, physician, author, painter and inventor.
- § **Thomas Jefferson** (1743–1826). Jefferson, the third President of the United States, was "the walking, talking embodiment of the Enlightenment, a polymath whose list of achievements is as long as it is incredibly varied." [61] He was a [philosopher](#), [author](#), [lawyer](#), [architect](#), [musician](#), [naturalist](#), [botanist](#), [inventor](#), [engineer](#), [statesman](#), [diplomat](#), and political theorist. At a dinner honoring Nobel laureates, [John F. Kennedy](#) famously said "I think this is the most extraordinary collection of talent, of human knowledge, that has ever been gathered together in the [White House](#)—with the possible exception of when Thomas Jefferson dined alone." [62]
- § **Johann Wolfgang von Goethe** (1749–1832) was a German [poet](#), [novelist](#), [playwright](#), [natural philosopher](#), [diplomat](#), [civil servant](#). His works span the fields of poetry, drama, literature, theology, philosophy, humanism and science. Goethe's [magnum opus](#), lauded as one of the peaks of [world literature](#), is the two-part drama [Faust](#). [63] "Germany's greatest man of letters—poet, critic, playwright, and novelist—and the last true polymath to walk the earth" [64] "Goethe comes as close to deserving the title of a universal genius as any man who has ever lived". [65] "He was essentially the last great European Renaissance man." [66] His gifts included incalculable contributions to the areas of German literature and the natural sciences. He is credited with discovery of a bone in the human jaw, and proposed a theory of colors. He has a mineral named in his honor, [goethite](#). He molded the aesthetic properties of the Alps to poetry, thus, changing the local belief from "perfectly hideous" and an "unavoidable misery," to grandeur of the finest most brilliant creation.
- § **Thomas Young** (13 June 1773 – 10 May 1829) was an English polymath who made notable contributions to the fields of [vision](#), [light](#), [solid mechanics](#), [energy](#), [physiology](#), [language](#), [musical harmony](#) and [Egyptology](#). [67]
- § 'Acharya Sir[68] **Jagadish Chandra Bose**, CSI,[69] CIE,[70] FRS (Bengali: জগদীশ চন্দ্র বসু Jógodish Chôndro Boshu) (30 November 1858 – 23 November 1937) was an outstanding [Indian](#) polymath: a [physicist](#), [biologist](#), [botanist](#), [archaeologist](#), as well as an early writer of [science fiction](#). [71] He pioneered the investigation of [radio](#) and [microwave optics](#), made very significant contributions to [plant science](#), and laid the foundations of [experimental science](#) in the [Indian subcontinent](#). [72] IEEE named him one of the [fathers of radio science](#). [73] He is also considered the father of [Bengali science fiction](#). He was the first person from the [Indian subcontinent](#) to receive a [US patent](#), in 1904.
- § **Jose Rizal** (1861–1896), a [Filipino](#) patriot, an [ophthalmologist](#), [poet](#), [journalist](#), [novelist](#), [volcanologist](#), [biologist](#), [political scientist](#), [painter](#) and [polyglot](#).\*
- § **Rabindranath Tagore** (1861–1941), an [Indian Bengali](#) poet, novelist, musician, playwright and painter who reshaped [Bengali literature](#) and [music](#) in the late

19th and early 20th centuries. As author of *Gitanjali* and its "profoundly sensitive, fresh and beautiful verse",<sup>[74]</sup> and as the first Asian to win the *Nobel Prize in Literature*,<sup>[75]</sup> Tagore was perhaps the most widely regarded Indian literary figure of all time. He was a mesmerizing representative of the Indian culture whose influence and popularity internationally perhaps could only be compared to that of *Gandhi*, whom Tagore named '*Mahatma*' out of his deep admiration for him.

§ **Pavel Florensky** (1882-1937), a Russian Orthodox *priest, theologian, philosopher, mathematician, electrical engineer, inventor* and neo-martyr, sometimes compared by his followers to *Leonardo da Vinci*.

## LIST OF POLYMATHS

The list below is organized by date of birth year.

- § **Imhotep** (fl. 2650–2611 BC);<sup>[1][2]</sup> *Egyptian chancellor, physician, and architect*; "Imhotep, circa 2650 BC (who was revered as being at least semi-divine until the *Late Period*, although some of this reverence may be due to his status as physician and all-round polymath)."<sup>[3]</sup>
- § **Pythagoras** (c. 580–490 BC), a *Greek mathematician and philosopher* of 6th century BC who founded a school in *Crotone* in south Italy and a philosophical system, *Pythagoreanism*, named after him. Pythagoras was thought to be a polymath by his contemporaries.<sup>[4]</sup> He is sometimes credited with coining the term "philosopher", literally a "lover of wisdom," and considered among the first to follow this vocation.<sup>[5]</sup>
- § **Archytas** (428–347 BC); an Ancient Greek philosopher, mathematician, astronomer, statesman, and strategist; famous for being the reputed founder of mathematical mechanics.
- § **Aristotle** (384–322 BC); a *Greek philosopher*, a student of *Plato* and teacher of *Alexander the Great*. He wrote on many subjects, including physics, *metaphysics*, *poetry*, theater, music, logic, rhetoric, politics, government, ethics, biology and zoology. He numbers among the greatest polymaths of all time.<sup>[6][7]</sup> "Aristotle was an extraordinary polymath..."<sup>[8]</sup>
- § **Archimedes** (c.287–c.212 BC); a *Greek mathematician, physicist, engineer, inventor, and astronomer*. Lived in Sicilian Greek town of Syracuse. Often considered one of the greatest mathematicians of all time,<sup>[9][10]</sup> Archimedes is noted for several advancements in almost every relevant field in his era.
- § **Zhang Heng** (78-139); a *Han Dynasty Chinese official, scholar of history and philosophy, poet, mathematician, astronomer, inventor, geographer, cartographer, painter, and sculptor* who invented the world's first *water-powered armillary sphere* and the world's first *seismometer* to detect the cardinal direction of distant earthquakes; he is often described as a polymath.<sup>[11][12][13][14]</sup>
- § **Zhuge Liang** (181–234)<sup>[15]</sup> was a Strategist, Inventor, Engineer, Scholar, Astrologer, State man and chancellor of *Shu Han* during the *Three Kingdoms* period of *Chinese history*. He is often recognised as the greatest and most accomplished strategist of his era.<sup>[16]</sup> His name – even his surname alone – has become synonymous with intelligence and strategy in *Chinese culture*.
- § **Acharya Nāgārjuna** (ca. 150–250) was an *Indian philosopher* who founded the *Madhyamaka* school of *Mahāyāna Buddhism*<sup>[citation needed]</sup>. He was not only a philosopher monk but also a physician who practised in the *Susratha* school, a chemist and a writer as well. His writings are the basis for the formation of the *Madhyamaka* school, which was transmitted to China under the name of the *Three Treatise (Sanlun) School*. He is credited with developing the philosophy of the *Prajnaparamita sutras*, and was closely associated with the Buddhist university of *Nalanda*. In the *Jodo Shinshu* branch of Buddhism, he is considered the *First Patriarch*. Little is known about the actual life of the historical Nagarjuna. The two most extensive biographies of Nagarjuna, one in Chinese and the other in Tibetan, were written many centuries after his life and incorporate material seen by some as historically unreliable. Nagarjuna was born a *Brahmin*,<sup>[17]</sup> which in his time connoted religious allegiance to the Vedas, probably into an upper-caste Brahmin family and probably in the southern *Andhra* region of India.<sup>[18]</sup>
- § **Hypatia** (<370-415) was a scholar and teacher in Roman Alexandria. She is considered the first notable female mathematician and also taught philosophy and astronomy.
- § **Aryabhata** (IAST: Āryabhaṭa; Sanskrit: आर्यभट्टः) (476–550) was the first in the line of great *mathematician-astronomers* from the classical age of *Indian mathematics* and *Indian astronomy*. His most famous works are the *Aryabhatiya* (499, when he was 23 years old) and the *Arya-siddhanta*. He is credited for the place-value system, the approximation of pi value, discovering that the earth rotates on its axis and the cause for eclipse occurrences.
- § **Ja'far al-Sadiq** (702-765); He was a *polymath: an astronomer, alchemist, Imam, Islamic scholar, Islamic theologian, writer, philosopher, physician, physicist and scientist*. He was also the *teacher* of the famous chemist, *Jābir ibn Hayyān* (Geber),<sup>[19][20]</sup> and a contemporary of *Abū Ḥanīfa*, founder of the *Hanafi school* of Sunni jurisprudence.
- § **Jābir ibn Hayyān (Geber)** (721–815);<sup>[21][22]</sup> born in *Tus* in *Persia* a *Persian* (or *Arab*) *Muslim chemist, alchemist, astrologer, astronomer, engineer, pharmacist, physician, philosopher, physicist and scientist*; "Jabir was a polymath who wrote 300 books on philosophy, 1,300 books on mechanical devices and military machinery, and hundreds of books on alchemy."<sup>[23]</sup>
- § **Al-Khwarizmi** (c. 780–850); "... a *Persian mathematician, astronomer, and geographer*, was the greatest polymath (a person of encyclopedic learning) in the *House of Wisdom* in Baghdad."<sup>[24]</sup> "...the polymath researcher..."<sup>[25]</sup>
- § **Al-Jahiz** (781-869); was a famous Arab scholar and polymath.<sup>[26]</sup> He was an *Arabic prose writer* and author of works on *Arabic literature, biology, zoology, history, early Islamic philosophy, Islamic psychology, Mu'tazili theology, and politico-religious polemics*.
- § **Ziryab** (789-857); an *Iraqi-Andalusian poet, musician, singer, cosmetologist, fashion designer, celebrity, trendsetter, strategist, astronomer, botanist and geographer*; "Zaryab was a "renaissance man" before the Renaissance."<sup>[27][28]</sup>
- § **Al-Kindi (Alkindus)** (801–873);<sup>[29][30]</sup> an Arab astronomer, geographer, mathematician, meteorologist, musician, philosopher, physician, physicist, scientist, and politician.<sup>[citation needed]</sup>
- § **Abbas ibn Firnas** (810-887); was a *Berber polymath*:<sup>[31][32]</sup> an *inventor, engineer, aviator, physician, Arabic poet, and Andalusian musician*.<sup>[32]</sup> He was born in *Izn-Rand Onda, Al-Andalus* (today's *Ronda, Spain*), and lived in the *Emirate of Córdoba*. He is known for an early unsuccessful attempt at *aviation*.<sup>[33][34]</sup>
- § **Abu Zayd al-Balkhi** (850-934); was a *Persian Muslim polymath: a geographer, mathematician, physician, psychologist and scientist*. Born in *Shamitstiyān*, in the *Persian province of Balkh* (now in *Afghanistan*), he was a disciple of *al-Kindi*. He was also the founder the "Balkhi school" of terrestrial mapping in *Baghdad*.<sup>[35]</sup>
- § **Muhammad ibn Zakariya Razi (Rhazes)** (865–925);<sup>[36]</sup> a *Persian physician, alchemist, chemist, philosopher and scholar*.<sup>[37]</sup> "Like other Muslim intellectuals of that period, Razi was a polymath. Only half of his nearly 200 written works deal with medicine, the rest are on other topics, such as *astronomy, mathematics, philosophy and theology*..."<sup>[38]</sup>
- § **Al-Farabi (Alpharabius)** (872-951); He "was a *Muslim*<sup>[39]</sup> *polymath* and one of the greatest *scientists* and *philosophers* of the *Islamic world* in his time. He was also a *cosmologist, logician, musician, psychologist and sociologist*."<sup>[40]</sup>
- § **Abu al-Hasan 'Ali al-Mas'udi** (896-956);<sup>[30][41]</sup> an Arab historian, Earth scientist, Islamic scholar, geographer, geologist, and traveller.<sup>[42]</sup> An "erudite polymath..."<sup>[43]</sup> "Prolific writer and polymath. His known works number over twenty and deal with a wide variety of religious and secular subjects, including *history* (both Islamic and universal), *geography, the natural sciences, philosophy, and theology*..."<sup>[44]</sup>
- § **Chavundraya** (or **Chamundaraya**) (940–989) was a military commander, poet and a minister in the court of the *Western Ganga Dynasty* of *Talakat* (in present day *Karnataka, India*). A person of many talents, in 982 he commissioned the *Gomateshwara*, a monolithic sculpture in *Shravanabelagola*, an important place of pilgrimage for *Jains*. He was a devotee of the *Jain Acharya Nemichandra* and *Ajitasena Bhattaraka* and was an influential person during the reign of Kings *Marasimha II, Rachamalla IV, and Rachamalla V* (Rakkasa Ganga). A courageous commander with the title of *Samara Parashurama*, he found time to pursue his literary interests as well and became a renowned writer in *Kannada* and *Sanskrit*.<sup>[45][46]</sup> He wrote an important and existing prose piece called *Chavundaraya Purana* (also known as *Trishasthi Lakshana Purana*) in *Kannada* (978) and *Charitrasara* in *Sanskrit*. In his writing, he claims he was from the *Brahmakshatriya Vamsa (Brahmin)* and converted to the *Kshatriya* caste.<sup>[47]</sup> He patronised the famous *Kannada grammarians Gunavarma and Nagavarma I* and the poet *Ranna* whose writing *Parusharama Charite* may have been a eulogy of his patron.<sup>[45]</sup> Because of his many lasting contributions, *Chavundaraya* is an important figure in the history of medieval *Karnataka*.
- § **Abhinavagupta** (fl. 975–1025);<sup>[48]</sup> an *Indian philosopher, literary critic, Shaivite, aesthetist, musician, poet, dramatist, dancer, exegetical theologian, and logician*; "the great *Kashmiri philosopher and polymath, Abhinavagupta*."<sup>[48]</sup>

- § **Ibn al-Haytham (Alhazen)** (965–1039), an Iraqi scientist, physicist, anatomist, physician, psychologist, astronomer, engineer inventor, mathematician, ophthalmologist, philosopher, and Ash'ari theologian; "a devout, brilliant polymath".[49] "a great man and a universal genius, long neglected even by his own people"; [50] "Ibn al-Haytham provides us with the historical personage of a versatile universal genius." [51] He is often credited with codifying the earliest form of the contemporary scientific method.[52]
- § **Abū Rayhān al-Bīrūnī** (973–1048), a Persian scientist, physicist, anthropologist, astronomer, astrologer, encyclopedist, geodesist, geographer, geologist, historian, mathematician, natural historian, pharmacist, physician, philosopher, scholar, teacher, Ash'arite theologian, and traveller; "al-Biruni was a polymath and traveler (to India) who introduced Indian scientific knowledge & thought to the Middle East & the West, making contributions in mathematics, geography and geology, natural history, calendars and astronomy".[53]
- § **Avicenna** (980–1037); a Persian astronomer, chemist, geologist, logician, paleontologist, mathematician, physicist, poet, psychologist, scientist and teacher. He wrote almost 450 treatises on a wide range of subjects and in particular on medicine which was taught in medieval universities as late as 1650. He is also considered the father of the fundamental concept of momentum in physics.[54] and regarded as a pioneer of aromatherapy for his invention of steam distillation and extraction of essential oils.[55] He also developed the concept of uniformitarianism and law of superposition in geology, for which he is considered to be the 'father of geology'.
- § **Ibn Hazm** (994–1064) An Andalusian-Arab polymath[56][57] who produced "... some 400 works, covering jurisprudence, logic, history, ethics, comparative religion, and theology, and *The Ring of the Dove*, on the art of love." [58]
- § **Shen Kuo** (1031–1095);[59] a Chinese scientist, statesman, mathematician, astronomer, meteorologist, geologist, zoologist, botanist, pharmacologist, agronomist, ethnographer, encyclopedist, poet, general, diplomat, hydraulic engineer, inventor, academy chancellor, finance minister, and inspector; "Chinese polymath and astronomer who studied medicine, but became renowned for his engineering ability." [59]
- § **Omar Khayyām** (1048–1131);[30][37][60] a Persian poet, writer, astronomer, mathematician, physician and philosopher.[61] He also wrote treatises on mechanics, geography, music and was a physicist.[62]
- § **Al-Ghazali** (1058–1111); He was a Persian jurist, philosopher, cosmologist, psychologist, mystic and Islamic theologian. He is considered a pioneer of the methods of doubt and skepticism and was an encyclopedic author, polymath, theorist, philosopher, moralist, critic and comparative religionist.[63][64]
- § **Acharya Hemachandra** (1089–1172); an Indian scholar, poet, linguist, grammarian, historian, philosopher, and prosodist; "the great polymath Hemacandra";[65] "Hemacandra (1089–1172) was one of the great polymaths of medieval India." [66]
- § **Ibn Bajjah (Avempace)** (1095–1138); Was an Andalusian-Arab Muslim polymath:[37] an astronomer, logician, musician, philosopher, physician, physicist, psychologist, poet and scientist.[67]
- § **Hildegard of Bingen** (1098–1179); also known as Saint Hildegard, and Sibyl of the Rhine, was a writer, composer, philosopher, Christian mystic, German Benedictine abbess, visionary, and polymath.[68]
- § **Ibn Tufail (Abubacer)** (1105–1185);[37] an Andalusian Arab "polymath scholar", [69] Islamic philosopher, physician, Arabic writer, novelist, and court official.
- § **Ibn Rushd (Averroes)** (1126–1198); was an Andalusian Muslim polymath; a master of Islamic philosophy, Islamic theology, Maliki law and jurisprudence, logic, psychology, politics, Arabic music theory, and the sciences of medicine, astronomy, geography, mathematics, physics and celestial mechanics. He has been described by some as "one of the spiritual fathers of Europe," [70] although other scholars oppose such claims.[71][72]
- § **Al-Jazari** (1136–1206); was a prominent Arab polymath: an Islamic scholar, inventor, mechanical engineer, craftsman, artist, mathematician and astronomer from Al-Jazira, Mesopotamia, who lived during the Islamic Golden Age (Middle Ages). He is best known for writing the *Kitāb fī ma'rīf al-hiyāl al-handasiyya* (Book of Knowledge of Ingenious Mechanical Devices) in 1206, where he described fifty mechanical devices along with instructions on how to construct them.[73]
- § **Fakhr al-Din al-Razi** (1149–1209); "the polymath Fakhr al-Din Al-Razi";[74] "one of the outstanding figures in Islamic theology... he also wrote on history, grammar, rhetoric, literature, law, the natural sciences and philosophy, and composed one of the major works of Qur'anic exegesis, the only remarkable gap in his output being politics." [75]
- § **Frederick II, Holy Roman Emperor** (1194–1250); King of Germany, Italy, Burgundy and Sicily. Lived most of his life in Sicily. A polyglot speaking eight or nine languages with high literacy in seven. He was a respected warrior and wise negotiator, who cultivated arts and letters. Frederick was patron of a crucially important poetic tradition, the Sicilian School, cited by Dante Alighieri as critical stage in the literary development of Italian and Romance languages in general and vernaculars (i.e. non Latin languages) across Europe. For about a century the poetry of the Palermo court produced a stylistically advanced Sicilian which preceded the Tuscan advanced by Dante as preferred language of Italy and shaped Dante's view that vernaculars should replace Latin. Frederick was also a multiculturalist, welcoming Greek, Latin, German, native Sicilian and French influences as well as the Arabic inheritance of Sicily. He founded the University of Naples and granted it academic freedom, a very enlightened act at a time when institutions of higher learning were rarely 'free' and autonomous. He was a religious skeptic, occasionally defying Popes. An acknowledged expert and writer on falconry with significant zoological studies. He was a lawyer and judge and theorised about the law and its role. He ruled over a brilliant court and cultivated the arts. Known in his time as "stupor mundi", wonder of the world, a kind of 13th century substitute for "polymath". [76][77]
- § **Nasir al-Din al-Tusi (Tusi)** (1201–1274);[78][79] a Persian polymath, prolific writer, an astronomer, biologist, chemist, mathematician, philosopher, physician, physicist, scientist, theologian and Marja Taqleed. He was one of the greatest scientists of the thirteenth century; [42] "the ensemble of Tusi's writings amounts to approximately 165 titles on a wide variety of subjects (astronomy, ethics, history, jurisprudence, logic, mathematics, medicine, philosophy, theology, poetry and the popular sciences)." [80]
- § **Albertus Magnus (Albert the Great)** (1206–1280); was a Dominican Scholastic philosopher, theologian, and scientist who studied at the University of Paris. "He is called 'the Great', and 'Doctor Universalis' (Universal Doctor), in recognition of his extraordinary genius and extensive knowledge, for he was proficient in every branch of learning cultivated in his day, and surpassed all his contemporaries, except perhaps Roger Bacon (1214-94), in the knowledge of nature." [81]
- § **Ibn al-Nafis** (1213–1288); [82] an Arab physician, anatomist, biologist, physiologist, surgeon, ophthalmologist, Ulema, Hafiz, Muhaddith, Shafi'i jurist and lawyer, Sunni theologian, philosopher, litterateur, logician, novelist, psychologist, scientist, science fiction writer, astronomer, cosmologist, futurist, geologist, grammarian, linguist, historian, philosopher of history, philosopher of religion, natural philosopher and sociologist; "Ibnul-Nafees was not only a great physician and discoverer of the minor blood circulation (pulmonary circulation), but he also had many interests, views and works about many other branches of knowledge." [83]
- § **Roger Bacon** (1220–1292); A Franciscan friar and Master at Oxford who studied Aristotelian philosophy, optics, languages, alchemy, astronomy and mathematics. [84] He is also credited for providing an early recipe for gunpowder.
- § **Qutb al-Din al-Shirazi** (1236–1311); was a 13th century Persian Muslim polymath [85] and Persian poet who made contributions astronomy, mathematics, medicine, physics, music theory, philosophy and Sufism. [86]
- § **Amir Khusrow** (1253–1325), an Indian Muslim scholar, he was a poet, inventor, mystic, writer, musician, linguist, soldier and historian. Born to a Turkish-Afghan father and an Indian mother (the latter a native of Delhi) in Etah, North India he is best known for his poetry composed in Persian and Hindi (then called Hindustani) under the Delhi Sultans; [87] among his best known works were *The Tale of the Four Dervishes* and *Khamsa-e-Nizami* (or *Khamsa-e-Khusrau*) which includes the popular Indian classical romance *Majnun-Laila*. [88] He also spoke Arabic and Sanskrit. In 1285 Khusrow participated as a soldier in the war against the invading Mongols; he was taken prisoner, but he managed to escape. In 1301 when Ala ud din Khilji, the Delhi Sultanate Emperor, attacked Ranthambhor, Chittor, Malwa and other places, Khusro accompanied the king in order to write chronicles. As a Sufi mystic he was a close aide of Nizamuddin Auliya, a famous Sufi Saint. In 1321 he wrote the *Tughlaqnama*, a history of the *Tughluq* dynasty. Khusrow is also known to have invented the classical Hindustani instruments the *Tabla* and the *sitar*. He is known for introducing *Qawwali*, *Khayal* and *Tarana* types into Hindustani classical music. [89][90]
- § **Ibn al-Banna** (1253–1321); He wrote "100 titles, out of which some 50 are dedicated to mathematics and astronomy (including astrology), but the list also includes Quranic studies, theology (ūsul al-dīn), logic, law (fiqh), rhetoric, prosody, Sufism, the division of inheritances (farā'id), weights and measures, measurement of surfaces (misāha), talismanic magic, and medicine", [91] and so he is considered by many as a polymath. [92]
- § **Ibn al-Khatib** (1313–1374); was a poet, writer, historian, philosopher, physician and politician from Al-Andalus. [93] Some of his poems decorate the walls of the Alhambra in Granada. "Ibn al-Khatib was a polymath for his time and place. Distinguished in many branches of learning, he wrote on history, philosophy, mysticism, and medicine, as well as a considerable amount of poetry." [94] He is also cited as a polymath by Britannica. [95]
- § **Ibn Khaldun** (1332–1406); "... was an Arab polymath [96][97] — an astronomer, economist, historian, Islamic jurist, Islamic lawyer, Islamic scholar, Islamic theologian, hafiz, mathematician, military strategist, nutritionist, philosopher, social scientist and statesman — born in North Africa in present-day Tunisia. [98] He is considered a forerunner of several social scientific disciplines: demography, [99] cultural history, [100][101] historiography, [102][103][104] the philosophy of history, [105] and

- sociology.[99][103][104][105][106][107] He is also considered one of the forerunners of modern economics,[103][108][109] and was also known for a "proto-theory" of evolution which predated Darwin and Lamarck[110] by several centuries.
- § **Nicholas of Cusa** (1401–1464); was a cardinal of the Catholic Church from Germany (Holy Roman Empire), a philosopher, theologian, jurist, mathematician, and an astronomer. He is widely considered one of the great geniuses and polymaths of the 15th century.
  - § **Leone Battista Alberti** (1404–1472); "often considered the archetype of the Renaissance polymath"[111]
  - § **Suyuti** (1445–1505);[112] an Egyptian Arab Islamic scholar, Sunni theologian, Shafi'i jurist, Arabic grammarian and linguist, historian, and Islamic philosopher.[37] "...the great Egyptian polymath al-Suyuti..."[113] "...the great polymath-historian Jalal al-Din al-Suyuti..."[114] "...the noted Arab polymath al-Suyuti..."[115]
  - § **Leonardo da Vinci** (1452–1519)[116][117]; artist, scientist, inventor, painter, sculptor, architect, engineer, mathematician, physicist, philosopher, humanist, alchemist, biologist, naturalist, anatomist, geologist, technologist, astronomer, cartographer, botanist, cryptographer, geometer, draftsman, designer, scenographer, stylist, musician, writer, author and poet. Often called geniuses' genius and Universal Genius, is regarded as "the original 'Renaissance Man'" and is one of the most recognizable polymaths ever. He is widely considered to be one of the greatest painters of all time and perhaps the most diversely talented person ever to have lived. [118] "In Leonardo Da Vinci, of course, he had as his subject not just an ordinary Italian painter, but the prototype of the universal genius, the 'Renaissance man'..."; "prodigious polymath..."[119] "The scope and depth of his interests were without precedent... His mind and personality seem to us superhuman".[120] A man of "unquenchable curiosity" and "feverishly inventive imagination".[121] Among his works, the *Mona Lisa* is the most famous and most parodied portrait and *The Last Supper* the most reproduced religious painting of all time. Leonardo's drawing of the *Vitruvian Man* is also regarded as a cultural icon, being reproduced on everything from the euro to text books to t-shirts. Leonardo is revered for his technological ingenuity. He conceptualised a *helicopter*, a *tank*, concentrated *solar power*, a calculator, the *double hull* and outlined a rudimentary theory of *plate tectonics*. He made important discoveries in *anatomy*, *civil engineering*, *optics*, and *hydrodynamics*. Leonardo's scientific accomplishments are often reduced to inventions (of which he made very many) or to speculation, and an adventurous spirit. Recent writing shows that he was in fact a serious and brilliant scientist, concerned with what today is called 'systems theory', or complex systems; but he devised scientific reasoning models for experimentation, and conducted experiments with validation procedures, all of which qualify him as a scientist in the true sense as well.[122] For the extraordinary and unprecedented range of his work, of which only a minority survives, he is universally considered one of the greatest geniuses in the history of mankind.
  - § **Gerolamo Cardano** (1501–1576), an Italian mathematician and inventor.
  - § **Taqi al-Din Muhammad ibn Ma'ruf (Taqiuddin)** (1526–1585); Was a major "Muslim polymath: a scientist, astronomer and astrologer, engineer and inventor, clockmaker, physicist and mathematician, botanist and zoologist, pharmacist and physician, Islamic judge and mosque timekeeper, Islamic philosopher and theologian, and madrasah teacher. He was the author of more than 90 books on a wide variety of subjects, including astronomy, astrology, clocks, engineering, mathematics, mechanics, optics and natural philosophy.[citation needed]
  - § **Matteo Ricci** (1552–1610); Italian Jesuit and a phenomenal figure in the East-West scientific exchange in China. "Matteo Ricci was the perfect man of culture, a polymath versed in all things, mathematics and literature, philosophy and poetry, mechanics and astronomy." [citation needed] In collaboration with **Xu Guangqi**, he was also the first to translate classic Confucian texts into Latin and classic Western texts into Chinese (including portions of *Euclid's Elements*). *Life Magazine* ranks Ricci among the "Top 100 People" of the 2nd millennium, placing him in 68th position.[123] David Mungello, J. Cummins, Jonathan Spence and Joseph Needham all describe his many first rate talents[124][125][126]
  - § **Akbar the Great** (1542–1605);[127] an Indian Mughal emperor, "polymath", architect, artisan, artist, armorer, blacksmith, carpenter, construction worker, engineer, general, inventor, lacemaker, ruler, technologist, theologian, and writer.[127]
  - § **Xu Guangqi** (1562–1633);[128] a Chinese bureaucrat, agricultural scientist, astronomer, and mathematician in the Ming Dynasty, who also helped in the translation of several classic Western texts into Chinese, including part of *Euclid's Elements*. Xu has been described as "a fascinating polymath who spread his interests far and wide for a specific purpose: statecraft." [128]
  - § **Galileo Galilei** (1564–1642); an Italian physicist, mathematician, astronomer and philosopher who played a major role in the Scientific Revolution.
  - § **Johann Schreck** (1576–1630); a German Jesuit, Missionary to China and polymath. He is credited with the discovery of the scientific-technical terminology.[129]
  - § **René Descartes** (1596 – 1650); a French philosopher, writer, mathematician and physicist. He has been dubbed the "Father of Modern Philosophy". He created analytic geometry and was also one of the key figures in the Scientific Revolution.
  - § **Athanasius Kircher** (born 1601); "a polymath who studied a variety of subjects including: music, Egyptology, Sinology, botany, magnetism";[130] Athanasius Kircher: *The Last Man Who Knew Everything* (book title)[131]
  - § **Blaise Pascal** (1623–1662) was a French mathematician, physicist, the first constructor of mechanical calculators, philosopher, theologian, and one of the greatest masters of French prose. Not frequently described as polymath, as the word doesn't exist in French, he was, for instance, praised by Chateaubriand, who said "There was a man who, aged 12, had rediscovered mathematics using rounds and bars; aged 16, written the deepest book on conics seen since Antiquity; aged 19, reduced to mechanical means a science which exists only in the mind; aged 23, found the weight of air, (...) then turned his thoughts towards God (...) giving its definitive shape to the language used later by Bossuet and Racine (...) This frightening genius was named Blaise Pascal" [132]
  - § **Robert Hooke** (1635 - 1703); an English physicist, mathematician, astronomer, natural philosopher, and architect.
  - § **Isaac Newton** (1643–1727) was an English physicist, mathematician, astronomer, theologian, natural philosopher and alchemist. His treatise *Philosophiæ Naturalis Principia Mathematica*, published in 1687, described universal gravitation and the three laws of motion, laying the groundwork for classical mechanics, which dominated the scientific view of the physical universe for the next three centuries and is the basis for modern engineering. In a 2005 poll of the *Royal Society* of who had the greatest effect on the history of science, Newton was deemed more influential than Albert Einstein.[133] "When we see Newton as a late Renaissance man, his particular addiction to classical geometry as ancient wisdom and the most reliable way of unveiling the secrets of nature, seems natural." [134]
  - § **Gottfried Leibniz** (1646–1716), a German philosopher, polymath and mathematician.
  - § **Benjamin Franklin** (1706–1790); an American polymath, a leading author, political theorist, politician, printer, scientist, inventor, civic activist, and diplomat. "The ultimate creole intellectual... A true polymath of the Enlightenment style, he distinguished himself on both sides of the Atlantic by researches in natural sciences as well as politics and literature." [135]
  - § **Ruder Josip Bošković** (18 May 1711 – 13 February 1787) was a theologian, physicist, astronomer, mathematician, philosopher, diplomat, poet, Jesuit, and a polymath from the city of Dubrovnik in the Republic of Ragusa (today in Croatia), who studied and lived in Italy and France.
  - § **Mikhail Lomonosov** (1711–1765);[136] "Lomonosov was a true polymath—physicist, chemist, natural scientist, poet and linguist..."[137]
  - § **Frederick II the Great** (1712–1786) was a King of Prussia. A polyglot speaking and reading ten languages. He was also been a writer, poet, composer, musician and philosopher.
  - § **Hiraga Gennai** (1728 – 1780) Edo period Japanese pharmacologist, student of Western studies, physician, author, painter and inventor.
  - § **Thomas Jefferson** (1743–1826); some sources describe him as "polymath and President," putting "polymath" first;[138] John F. Kennedy famously commented, addressing a group of Nobel laureates, that it was "the most extraordinary collection of talent, of human knowledge, that has ever been gathered together at the White House—with the possible exception of when Thomas Jefferson dined alone." [139]
  - § **Johann Wolfgang von Goethe** (1749–1832) a German Poet, Novelist, Playwright, Natural Philosopher, Diplomat, Civil servant. His works span the fields of poetry, drama, literature, theology, philosophy, humanism and science. Goethe's magnum opus, lauded as one of the peaks of world literature, is the two-part drama *Faust*. [140] "Germany's greatest man of letters—poet, critic, playwright, and novelist—and the last true polymath to walk the earth"[141] "Goethe comes as close to deserving the title of a universal genius as any man who has ever lived".[142] "He was essentially the last great European Renaissance man." [143] His gifts included incalculable contributions to the areas of German literature and the natural sciences. He is credited with discovery of a bone in the human jaw, and proposed a theory of colors. He has a mineral named in his honor, *goethite*. He molded the aesthetic properties of the Alps to poetry, thus, changing the local belief from "perfectly hideous" and an "unavoidable misery," to grandeur of the finest most brilliant creation.
  - § **Samuel Taylor Coleridge** (1772–1834); poet, critic, and philosopher.[144]
  - § **Thomas Young** (1773–1829) was an English polymath who made notable contributions to the fields of vision, light, solid mechanics, energy, physiology, language,

musical harmony and Egyptology.[145]

- § **Hermann Grassmann** (1809-1877) was a German linguist, mathematician, physicist, neohumanist, general scholar, and publisher.
- § **Herbert Spencer** (1820-1903) was an English philosopher, biologist, sociologist, and prominent classical liberal political theorist of the Victorian era.
- § 'Acharya Sir[146] **Jagadish Chandra Bose**, CSI,[147] CIE,[148] FRS (30 November 1858 – 23 November 1937) was an **Indian polymath**: a **physicist**, **biologist**, **botanist**, **archaeologist**, as well as an early writer of **science fiction**.<sup>[149]</sup> He pioneered the investigation of **radio** and **microwave optics**, made very significant contributions to **plant science**, and laid the foundations of **experimental science** in the **Indian subcontinent**.<sup>[150]</sup> IEEE named him one of the **fathers of radio science**.<sup>[151]</sup> He is also considered the father of **Bengali science fiction**. He was the first person from the **Indian subcontinent** to receive a **US patent**, in 1904. Known as the Doyen of Indian Science, as a physicist he is remembered for inventing the **Horn antenna** and as a **Radio pioneer**. As a botanist he is known for his experiment which proved reaction to stimulus in plants.
- § **Alexander Borodin** (1833–1887), a leading **Russian** researcher and professor of chemistry and **composer** of symphonies, string quartets, songs, and the opera **Prince Igor**.
- § **Charles Sanders Peirce**<sup>[152]</sup> (1839–1914); **American philosopher**, **logician**, **mathematician**, **statistician**, **semiotician** and **chemist** who founded the philosophical tradition of **pragmatism**. He made major contributions to logic, but logic for him encompassed much of that which is now called epistemology and philosophy of science. He saw logic as the formal branch of **semiotics**, of which he is a founder. As early as 1886 he saw that **logical operations could be carried out by electrical switching circuits**, the same idea as was used decades later to produce digital computers.
- § **José Rizal** (1861–1896), a **Filipino patriot**, an **ophthalmologist**, **poet**, **journalist**, **novelist**, **biologist**, **political scientist**, **painter** and **polyglot**.
- § **Rabindranath Tagore** (1861–1941), an Indian **Bengali poet**, **novelist**, **musician**, **playwright** and **painter** who reshaped **Bengali literature** and **music** in the late 19th and early 20th centuries. As author of **Gitanjali** and its "profoundly sensitive, fresh and beautiful verse",<sup>[153]</sup> and as the first Asian to win the **Nobel Prize in Literature**,<sup>[154]</sup> Tagore was perhaps the most widely regarded Indian literary figure of all time. He was a mesmerizing representative of the Indian culture whose influence and popularity internationally perhaps could only be compared to that of **Gandhi**, whom Tagore named 'Mahatma' out of his deep admiration for him.
- § **Edward Heron-Allen**<sup>[155]</sup><sup>[156]</sup> (1861–1943): Not only was Heron-Allen a lawyer by trade, he also wrote, lectured on and created violins,<sup>[157]</sup> was an expert on the art of chiromancy or **palmistry**,<sup>[158]</sup> having read palms and analysed the handwriting of luminaries of the period. He wrote on musical, literary and scientific subjects ranging from foraminifera,<sup>[159]</sup> **marine zoology**, **meteorology**, as a Persian scholar translated Classics such as the **Rubaiyat of Omar Khayyam** and **The Lament of Baba Tahir**, also wrote on local history,<sup>[160]</sup> **archaeology**, **Buddhist philosophy**, the cultivation, gourmet appreciation of and culture of the asparagus, as well as a number of novels and short stories of science fiction and horror written under his pseudonym of "Christopher Blayre."
- § **C. B. Fry** (1872–1956) – International and record-breaking athlete at sports including **football**, **cricket**, **athletics** and **rugby union**, also a politician, publisher, teacher and writer.<sup>[161]</sup><sup>[162]</sup><sup>[163]</sup><sup>[164]</sup><sup>[165]</sup>
- § **Dr. Albert Schweitzer** (1875–1965) – "A polymath talent",<sup>[166]</sup> Schweitzer was an **Alsatian theologian**, **musician**, **philosopher**, **physician**, **humanitarian**, and **peace activist**. Influential in all of these fields, he wrote theological and philosophical texts ranging from the **historical Jesus**<sup>[167]</sup> to **J.S. Bach**<sup>[168]</sup> and German/French organ-building<sup>[169]</sup> which influenced the **Organ reform movement**. He founded the **Albert Schweitzer Hospital** in Lambaréné, and was honored with the 1952 **Nobel Prize** for his philosophy of "**Reverence for Life**."<sup>[170]</sup> He spent the last years of his life campaigning against the use of nuclear weapons.<sup>[171]</sup>
- § **Erwin Schrödinger**<sup>[172]</sup> (1887-1961), a **physicist** and **theoretical biologist** who was one of the fathers of **quantum mechanics**, and is famed for a number of important contributions to physics, especially the **Schrödinger equation**, for which he received the **Nobel Prize in Physics** in 1933. In 1935, after extensive correspondence with personal friend **Albert Einstein**, he proposed the **Schrödinger's cat thought experiment**.
- § **Friedrich Hayek**<sup>[173]</sup> (1899-1992), a **Austrian economist**, **philosopher**, **psychologist** and **political scientist**; important contributor to the **Austrian School** of economics and winner of the **Nobel Memorial Prize in Economic Sciences** in 1974.
- § **Jean Cocteau**<sup>[174]</sup> (1889–1963), a **French poet**, **novelist**, **artist**, **filmmaker**, **dramatist**, **designer**, **boxing manager**, **diarist**, **ballet scenarist**, **illustrator** and **playwright**. The "polymath par excellence"<sup>[175]</sup> was an internationally renowned figure who was an influence on **Modernism** and the 20th century **avant-garde**.
- § **William James Sidis** (1898–1944); a child prodigy who wrote on such varied subjects as **mathematics**, **cosmology**, **psychology**, **Native American history**, and **public transportation**. "His sister, Helena, said of him that, as an adult, he could learn a new language in one day, and as an adult, he was a true polymath, a 'Renaissance man'."<sup>[citation needed]</sup>
- § **Vladimir Nabokov** (1899-1977); a Russian-born novelist, **lepidopterist**, professor, and chess problem composer.<sup>[176]</sup>
- § **André Malraux**<sup>[citation needed]</sup> (1901–1976); a French novelist, art historian, adventurer and politician;" France's first minister of culture and polymath extraordinaire"<sup>[177]</sup>
- § **Paul Robeson** <sup>[178]</sup> (1898–1976); an internationally renowned American bass-baritone concert singer, actor of film and stage, All-American and professional athlete, writer, multi-lingual orator, scholar and lawyer who was also noted for his wide-ranging social justice activism.
- § **John von Neumann** (1903–1957); a physicist, mathematician, contributions to game theory, economics, pioneering computer scientist. "It isn't often that the human race produces a polymath like von Neumann, then sets him to work in the middle of the biggest crisis in human history..."<sup>[179]</sup> "Other luminaries would follow Einstein to New Jersey, including the dazzling Hungarian polymath, John von Neumann..."<sup>[180]</sup>
- § **Jacob Bronowski**<sup>[citation needed]</sup> (1908–1974); a Polish-British Jewish mathematician, poet, inventor, theater author, humanist and historian of science. Author of **The Ascent of Man**.
- § **Herbert Simon** (1916–2001); "Simon is a very distinguished polymath, famous for work in psychology and computer science, philosophy of science, a leader in artificial intelligence, and a Nobel Prize winner in Economics."<sup>[181]</sup>
- § **Isaac Asimov** (1920–1992); Having written or edited more than 500 books and an estimated 9,000 letters and postcards, his works have been published in nine of the ten major categories of the **Dewey Decimal System**. "While most prolific writers tend to concentrate almost exclusively on a single genre, Asimov was a polymath who wrote widely on a variety of subjects."<sup>[182]</sup>
- § **Boris Vian** (10 March 1920 – 23 June 1959) was a **French polymath**: **writer**, **poet**, **musician**, **singer**, **translator**, **critic**, **actor**, **inventor** and **engineer**.<sup>[183]</sup><sup>[184]</sup>
- § **Desmond Morris** (born 1928); a British zoologist and ethologist, who is also a surrealist painter, popular author, and television presenter. "Desmond Morris already has a reputation for being something of a polymath. Zoologist, Man Watcher, gesture expert and even television celebrity..."<sup>[185]</sup>
- § **Naquib Al-Attas** (born 1931); "In his person he resembles the universal character of scholars of the past in the mastery of many branches of learning: **religion**, **metaphysics**, **theology**, **philosophy**, **education**, **philology**, **letters**, **art** and **architecture**, and **military sciences**."<sup>[186]</sup> "The closest thing to a polymath that modern Islam has produced."<sup>[187]</sup>
- § **Robert Anton Wilson** (born Robert Edward Wilson, January 18, 1932 – January 11, 2007), known to friends as "Bob", was an American author and polymath who became at various times a novelist, philosopher, psychologist, essayist, editor, playwright, futurist, civil libertarian<sup>[1]</sup> and self-described agnostic mystic. Recognized as an episkopos, pope, and saint of Discordianism, Wilson helped publicize the group through his writings, interviews, and strolls. Wilson described his work as an "attempt to break down conditioned associations, to look at the world in a new way, with many models recognized as models or maps, and no one model elevated to the truth".<sup>[2]</sup> His goal being "to try to get people into a state of generalized agnosticism, not agnosticism about God alone but agnosticism about everything".<sup>[3]</sup>
- § **Umberto Eco** (born 1932); professor of semiotics, novelist, and an expert on literature, medieval philosophy and pop culture.<sup>[188]</sup>
- § **Christopher Okigbo**<sup>[189]</sup> (1932-1967); **Nigerian poet** in the **modernist** and **postcolonial** traditions, academic, human rights activist, and proponent of **Igbo independence** who died fighting for the independence of **Biafra**.
- § **Jonathan Miller** (born 1934); a British theatre and opera director, author, television presenter, humorist, and sculptor, who trained as a doctor. "The polite polymath."<sup>[190]</sup>
- § **Edward Said**<sup>[191]</sup> (1935–2003); author, **literary theorist**, **cultural critic**, **public intellectual**, and advocate for **Palestinian rights**, and founding figure in **postcolonialism** via his book **Orientalism**.

- § **Jared Diamond** (born 1937); anthropologist, geographer, physiologist, author, ornithologist.[192]
- § **Douglas Hofstadter** (born 1945); professor of cognitive science, author, philosopher, aesthetist, academic musician and artist, mathematician, physicist.[193]
- § **Hamlet Isakhanli** (born 1948); professor of mathematical-physical sciences, mathematician, poet, social scientist, scholar of history of education, literature and culture, founder of university, founder and co-founder of various organizations, entrepreneur, writer, translator.[194][195]
- § **Rowan Williams** (born 1950); [Archbishop of Canterbury](#), "the polymath primate" of All England,[196] a "polymath poet who speaks a dozen languages,"[197] systematic theologian, former dean of [Clare College, Cambridge](#), co-founder and patron of [Affirming Catholicism](#) and [The Society of Catholic Priests](#), Bard of the Welsh Gorsedd.
- § **Nathan Myhrvold** (born 1959); computer scientist, technologist, mathematician, physicist, entrepreneur, nature and wildlife photographer, master chef.