



Louisa May Alcott

(1832-1888)

American Author

Alcott, Louisa May, born in Germantown, Pa.; daughter of Bronson Alcott. Mostly educated by her father, she was a friend of Emerson and Thoreau, and her first book, *Flower Fables* (1854), was a collection of tales originally created to amuse Emerson's daughter. Alcott was determined to contribute to the small family income and worked as a servant and a seamstress before she made her fortune as a writer. Her letters written to her family when she was a Civil War nurse were published as *Hospital Sketches* (1863); her first published novel, *Moods*, followed in 1864. She first achieved wide fame and wealth with *Little Women* (1868), one of the most popular children's books ever written. The novel, which recounts the adolescent adventures of the four March sisters, is largely autobiographical, the author herself being represented by the spirited Jo March. *Good Wives* (1869), *Little Men* (1871), and *Jo's Boys* (1886) are sequels.

Alcott's other novels for young readers include *An Old-Fashioned Girl* (1870), *Eight Cousins* (1875), and *Under the Lilacs* (1879). They all picture family life in Victorian America with warmth and perception. She also wrote novels for adults, including *Work* (1873), which is grounded in Alcott's experiences as a breadwinner for her family, and the unfinished *Diana and Persis*, an examination of the relationship between two women artists. Another adult volume, the novel *A Long Fatal Love Chase* (1866), which was originally rejected by her publisher as too sensational, was discovered in manuscript in the early 1990s and finally published in 1995. In 1996 yet another manuscript was unearthed; it contained Alcott's very first novel, written for young people, entitled *The Inheritance* and composed in 1849 when the author was 18.

Bibliography: See her letters and journal, ed. by E. D. Cheney (1889, repr. 1966); *Selected Letters of Louisa May Alcott*, ed. by J. Myerson et al. (1987), *Journals of Louisa May Alcott*, ed. by J. Myerson et al. (1989); biographies by K. S. Anthony (1938, repr. 1977) and S. Elbert (1984); studies by R. L. MacDonald (1983) and C. Strickland (1985).

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Maya Angelou

(1928-2014)

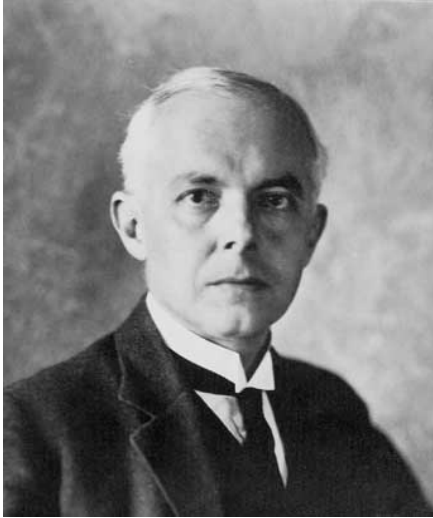
American Author/Poet/Civil Rights Activist

Maya Angelou (born Marguerite Annie Johnson; April 4, 1928 – May 28, 2014) was an American poet, memoirist, and civil rights activist. She published seven autobiographies, three books of essays, several books of poetry, and was credited with a list of plays, movies, and television shows spanning over 50 years. She received dozens of awards and more than 50 honorary degrees. Angelou is best known for her series of seven autobiographies, which focus on her childhood and early adult experiences. The first, *I Know Why the Caged Bird Sings* (1969), tells of her life up to the age of 17 and brought her international recognition and acclaim.

She became a poet and writer after a series of occupations as a young adult, including fry cook, sex worker, nightclub dancer and performer, cast member of the opera *Porgy and Bess*, coordinator for the Southern Christian Leadership Conference, and journalist in Egypt and Ghana during the decolonization of Africa. She was an actor, writer, director, and producer of plays, movies, and public television programs. In 1982, she earned the first lifetime Reynolds Professorship of American Studies at Wake Forest University in Winston-Salem, North Carolina. She was active in the Civil Rights Movement and worked with Martin Luther King Jr. and Malcolm X. Beginning in the 1990s, she made around 80 appearances a year on the lecture circuit, something she continued into her eighties. In 1993, Angelou recited her poem "On the Pulse of Morning" (1993) at President Bill Clinton's inauguration, making her the first poet to make an inaugural recitation since Robert Frost at President John F. Kennedy's inauguration in 1961.

With the publication of *I Know Why the Caged Bird Sings*, Angelou publicly discussed aspects of her personal life. She was respected as a spokesperson for black people and women, and her works have been considered a defense of black culture. Attempts have been made to ban her books from some U.S. libraries, but her works are widely used in schools and universities worldwide. Angelou's most celebrated works have been labeled as autobiographical fiction, but many critics consider them to be autobiographies. She made a deliberate attempt to challenge the common structure of the autobiography by critiquing, changing, and expanding the genre. Her books center on themes such as racism, identity, family, and travel.

Source: Wikipedia contributors. "Maya Angelou." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 4 Jan. 2017. Web. 4 Jan. 2017.



Béla Bartók

(1881-1945)

Hungarian Composer

Béla Bartók, the great Hungarian composer, was one of the most significant musicians of the twentieth century. He shared with his friend Zoltán Kodály, another leading Hungarian composer, a passion for ethnomusicology. His music was invigorated by the themes, modes, and rhythmic patterns of the Hungarian and other folk music traditions he studied, which he synthesized with influences from his contemporaries into his own distinctive style.

Bartók grew up in the Greater Hungary of the Austro-Hungarian Empire which was partitioned by the Treaty of Trianon after World War I. His birthplace, Nagyszentmiklós (Great St Nicholas), became Sinnicolau Mare, Romania. After his father died in 1888, Béla's mother, Paula, took her family to live in Nagyazöllös, later Vinogradov, Ukraine, and then to Pozsony, or Bratislava, in her native Slovakia. When Czechoslovakia was created Béla and his mother found themselves on opposite sides of a border.

A smallpox inoculation gave the infant Béla a rash that persisted until he was five years old. Because of this he spent his early years in isolation from other children, often listening to his mother playing the piano. Béla showed precocious musical ability and began to compose dances at the age of nine. The frequent moves of the family were motivated, in part, by Paula Bartók's desire to obtain the best possible musical instruction for her son.

In 1904, while staying in the Slovakian countryside in order to practice and compose, Bartók overheard Lidi Dósa, a Székely Hungarian woman from Transylvania, sing the song *Piros alma* ("Red Apple"). He then interviewed her to find out what other songs she knew. This encounter was the beginning of Bartók's lifetime fascination with folk music. Two years later Bartók was introduced to Kodály, who soon became his closest friend. Kodály had already begun to collect recordings of Hungarian folk music using an Edison cylinder. Bartók began his collecting in Hungary's Békés County in 1906.

Unlike Kodály, Bartók also became interested in other folk traditions, studying the folk music of Romanians, Slovaks, Serbs, Croats, Bulgarians, Turks, and North Africans as well as Hungarians. In 1906, while visiting Algeria, Bartók had a vision of how he might begin to order scattered folk tunes of the world. This, as he recalled, ended any desire on his part for the kind of career others had projected for him, as "the future master of the most charming salon music." Afterwards, the main task of his life was to collect, analyze, and catalogue major portions of the world's folk music.

Source: Excerpt from *Dictionary of Unitarian Universalist Biography*, by Peter Hughes.



William Blake

(1757-1827)

English Artist, Poet, and Writer

Blake, William, born in London. Although he exerted a great influence on English romanticism, Blake defies characterization by school, movement, or even period. At the same time no poet has been more sensitive or responsive to the realities of the human condition and of his time.

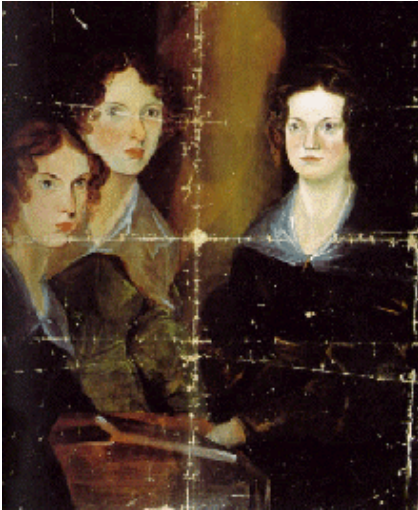
Blake's father, a prosperous hosier, encouraged young Blake's artistic tastes and sent him to drawing school. At 14 he was apprenticed to James Basire, an engraver, with whom he stayed until 1778. After attending the Royal Academy, where he rebelled against the school's stifling atmosphere, he set up as an engraver. In 1782 he married Catherine Boucher, whom he taught to read, write, and draw. She became his inseparable companion, assisting him in nearly all his work.

Blake's paintings and engravings, notably his illustrations of his own works, works by Milton, and of the Book of Job, are painstakingly realistic in their representation of human anatomy and other natural forms. They are also radiantly imaginative, often depicting fanciful creatures in exacting detail. Nearly unknown during his life, Blake was generally dismissed as an eccentric or worse long thereafter. His following has gradually increased, and today he is widely appreciated as a visual artist and as a poet.

In *Songs of Innocence* (1789) and *Songs of Experience* (1794) the world is seen from a child's point of view, directly and simply but without sentimentality. In the first group, which includes such poems as "The Lamb," "Infant Joy," and "Laughing Songs," both the beauty and the pain of life are captured. The latter group, which includes "The Tyger," "Infant Sorrow," "The Sick Rose," and "London," reveal a consciousness of cruelty and injustice in the world, for which people, not fate, are responsible. As parables of adult life the *Songs* are rich in meaning and implication.

Blake's Prophetic Books combine poetry, vision, prophecy, and exhortation. They include *The Book of Thel* (1789), *The Marriage of Heaven and Hell* (c. 1790), *The French Revolution* (1791), *America* (1793), *Europe* (1794), *The Book of Urizen* (1794), *The Book of Los* (1795), *Milton* (1804-8), and *Jerusalem* (1804-20). These comprise no less than a vision of the whole of human life, in which energy and imagination struggle with the forces of oppression both physical and mental. Blake exalted love and pure liberty, and abhorred the reductive, rationalist philosophy that served to justify the political and economic inequities attendant upon the Industrial Revolution.

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The Brontë Sisters

Charlotte (1816-1855), Emily (1818-1848), and Anne (1820-1849)

English Novelists and Poets

Brontë, family of English novelists, including Charlotte Brontë, English novelist, Emily Jane Brontë, English novelist and poet, and Anne Brontë, English novelist.

The Brontë sisters were daughters of Patrick Brontë (1777–1861), an Anglican clergyman of Irish birth, educated at Cambridge. In 1820 Patrick Brontë became incumbent of Haworth, West Riding of Yorkshire. The next year his wife died, and her sister, Elizabeth Branwell, came to the parsonage to care for the six Brontë children, five girls and one boy, Branwell. The children were left much to themselves, and they began to write about an imaginary world they had created. This escapist writing, transcribed in tiny script on small pieces of paper, continued into adulthood and is a remarkable key to the development of genius in Charlotte and Emily. In 1831, Charlotte was sent to Miss Wooler's school at Roe Head. She became a teacher there in 1835, but in 1838 she returned to Haworth. At home she found the family finances in wretched condition. Branwell—talented as a writer and painter, on whom his sisters' hopes for money and success rested—had lost three jobs and was declining into alcoholism and opium addiction.

Of the three prodigiously gifted Brontë sisters Anne has been judged the least talented. Nonetheless, her novels have been widely praised for their realism, integrity, and moral force. *Agnes Grey* is the unadorned story of a governess's life and *The Tenant of Wildfell Hall* tells of a young girl's marriage to a rake.

Charlotte Brontë was the most professional of the sisters, consciously trying to achieve financial success from the family's literary efforts. Her novel *Jane Eyre*, the story of a governess and her passionate love for her Byronic employer, Mr. Rochester, is ranked among the great English novels. Strong, violently emotional, somewhat melodramatic, *Jane Eyre* brilliantly articulates the theme found in all Charlotte's work—the need of women for both love and independence.

The undisputed genius of the family was Emily Brontë. An unyielding and enigmatic personality, she produced only one novel and a few poems, yet she is ranked among the giants of English literature. Her masterpiece, *Wuthering Heights*, is the wild, passionate story of the intense, almost demonic, love between Catherine Earnshaw and the Gypsy foundling Heathcliff. The action of the story is chaotic and unrelentingly violent; its characters are less people than forces. Indeed, the novel would be extraordinarily difficult to read were it not for the power of Emily Brontë's vision and the beauty and energy of her prose. In addition, some of her powerful lyrics are counted with the best of English poetry.

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Miguel de Cervantes

(1547-1616)

Spanish Novelist, Poet, & Playwright

Miguel de Cervantes 29 September 1547 (assumed) – 22 April 1616) was a Spanish novelist, poet, and playwright. His magnum opus, *Don Quixote*, considered to be the first modern European novel, is a classic of Western literature, and is regarded amongst the best works of fiction ever written. His influence on the Spanish language has been so great that the language is often called *la lengua de Cervantes* ("the language of Cervantes"). He was dubbed *El Príncipe de los Ingenios* ("The Prince of Wits").

In 1569, Cervantes moved to Rome where he worked as chamber assistant of a cardinal. Cervantes then enlisted as a soldier in a Spanish Navy infantry regiment and continued his military life until 1575, when he was captured by Algerian corsairs. After 5 years of slavery he was released by his captors on ransom from his parents and the Trinitarians, a Catholic religious order, and he subsequently returned to his family in Madrid.

In 1585, Cervantes published a pastoral novel named *La Galatea*. Because of financial problems, he worked as a purveyor for the Spanish Armada, and later as a tax collector. In 1597, discrepancies in his accounts of three years previous landed him in the Crown Jail of Seville. In 1605, he was in Valladolid when the immediate success of the first part of his *Don Quixote*, published in Madrid, signaled his return to the literary world. In 1607, he settled in Madrid, where he lived and worked until his death. During the last 9 years of his life, Cervantes solidified his reputation as a writer; he published the *Novelas ejemplares* (Exemplary Novels) in 1613, the *Journey to Parnassus* (*Viaje al Parnaso*) in 1614, and in 1615, the *Ocho comedias y ocho entremeses* and the second part of *Don Quixote*. Carlos Fuentes noted that, "Cervantes leaves the page open where the reader knows himself read and the author written."

Source: Wikipedia contributors. "Miguel de Cervantes." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 25 Dec. 2016. Web. 25 Dec. 2016.



John Coltrane

(1926-1967)

American Jazz Saxophonist & Composer

John William Coltrane, also known as "Trane" (September 23, 1926 – July 17, 1967), was an American jazz saxophonist and composer. Working in the bebop and hard bop idioms early in his career, Coltrane helped pioneer the use of modes in jazz and was later at the forefront of free jazz. He organized at least fifty recording sessions as a leader during his career, and appeared as a sideman on many other albums, notably with trumpeter Miles Davis and pianist Thelonious Monk.

As his career progressed, Coltrane and his music took on an increasingly spiritual dimension. His second wife was pianist Alice Coltrane and their son Ravi Coltrane is also a saxophonist. Coltrane influenced innumerable musicians, and remains one of the most significant saxophonists in music history. He received many posthumous awards and recognitions, including canonization by the African Orthodox Church as Saint John William Coltrane and a special Pulitzer Prize in 2007.

Source: Wikipedia contributors. "John Coltrane." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 11 Jan. 2017. Web. 11 Jan. 2017.



Marie Curie

(1867-1934)

Polish-French Chemist & Physicist

Marie Sklodowska Curie, born in Warsaw, and her husband, Pierre Curie, 1859–1906, scientist, are known for their work on radioactivity and on radium. The Curies' daughter Irène (see under Joliot-Curie, family) was also a scientist.

Pierre Curie's early work dealt with crystallography and with the effects of temperature on magnetism; he discovered (1883) and, with his brother Jacques Curie, investigated piezoelectricity (a form of electric polarity) in crystals. Marie Sklodowska's interest in science was stimulated by her father, a professor of physics in Warsaw. In 1891 she went to Paris to continue her studies at the Sorbonne. In 1895 she married Pierre Curie and engaged in independent research in his laboratory at the municipal school of physics and chemistry where Pierre was director of laboratories (from 1882) and professor (from 1895).

Following A. H. Becquerel's discovery of radioactivity, Mme Curie began to investigate uranium, a radioactive element found in pitchblende. In 1898 she reported a probable new element in pitchblende, and Pierre Curie joined in her research. They discovered (1898) both polonium and radium, laboriously isolated one gram of radium salts from about eight tons of pitchblende, and determined the atomic weights and properties of radium and polonium. The Curies refused to patent their processes or otherwise to profit from the commercial exploitation of radium. For their work on radioactivity they shared with Becquerel the 1903 Nobel Prize in Physics.

The Sorbonne created (1904) a special chair of physics for Pierre Curie; Marie Curie was appointed his successor after his death in a street accident. She also retained her professorship (assumed in 1900) at the normal school at Sèvres and continued her research. In 1910 she isolated (with André Debierne) metallic radium. As the recipient of the 1911 Nobel Prize in Chemistry she was the first person to be awarded a second Nobel Prize. She was made director of the laboratory of radioactivity at the Curie Institute of Radium, established jointly by the Univ. of Paris and the Pasteur Institute, for research on radioactivity and for radium therapy.

In 1995 Marie and Pierre Curie's ashes were enshrined in the Panthéon, Paris; she was the first woman to be honored so in her own right. Among the numerous and valuable writings of the Curies are Marie Curie's doctoral dissertation, *Radioactive Substances* (1902, 2 vol.; tr. 1961); *Traité de radioactivité* (1910); *Radioactivité* (1935); and her biography of Pierre Curie (1923, tr. 1923). Pierre Curie's collected works appeared in 1908. A biography of Marie Curie was written by a daughter, Ève Curie (tr. 1937). See also biographies by R. W. Reid (1974), F. Giroud (tr. 1986), and S. Quinn (1995).

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Charles Dickens

(1812-1870)

English Author

Dickens, Charles, born in Portsmouth, England, one of the world's most popular, prolific, and skilled novelists. The son of a naval clerk, Dickens spent his early childhood in London and in Chatham. When he was 12 his father was imprisoned for debt, and Charles was compelled to work in a blacking warehouse. He never forgot this double humiliation. At 17 he was a court stenographer, and later he was an expert parliamentary reporter for the *Morning Chronicle*. His sketches, mostly of London life (signed Boz), began appearing in periodicals in 1833, and the collection *Sketches by Boz* (1836) was a success.

In 1836 he married Catherine Hogarth, who was to bear him 10 children; the marriage, however, was never happy. Dickens had a tender regard for Catherine's sister Mary Hogarth, who died young, and a lifelong friendship with another sister, Georgina Hogarth.

Dickens lived in Italy in 1844 and in Switzerland in 1846. *Dombey and Son* (1848) was the first in a string of triumphant novels including *David Copperfield* (1850), his own favorite novel, which was partly autobiographical; *Bleak House* (1853); *Hard Times* (1854); *Little Dorrit* (1857); *A Tale of Two Cities* (1859); *Great Expectations* (1861); and *Our Mutual Friend* (1865). In 1856 he bought his long-desired country home at Gadshill. Two years later, because of Dickens's attentions to a young actress, Ellen Ternan, his wife ended their marriage by formal separation.

Charles Dickens is one of the giants of English literature. He wrote from his own experience a great deal—the Marshalsea prison dominates *Little Dorrit*, and his father was at least partially the model for Mr. Micawber in *David Copperfield*. Although he was expert at journalistic reporting, he wrote nothing that was not transformed from actuality by his imagination. Sharp depiction of the eccentricities and characteristic traits of people was stretched into caricature, and for generations of readers the names of his characters—Mr. Pickwick, Uriah Heep, Miss Havisham, Ebenezer Scrooge—have been household words.

His enormous warmth of feeling sometimes spilled into sentimental pathos, sometimes flowed as pure tragedy. Dickens was particularly successful at evoking the sights, sounds, and smells of London, and the customs of his day. He attacked the injustices of the law and social hypocrisy and evils, but after many of the ills he pictured had been cured he gained still more readers. Some critics complain of his disorderliness in structure and of his sentimentality, but none has attempted to deny his genius at revealing the very pulse of life.

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George Eliot

(1819-1880)

British Novelist

Eliot, George, pseud. of **Mary Ann** or **Marian Evans**, English novelist, born in Arbury, Warwickshire. One of the great English novelists, she was reared in a strict atmosphere of evangelical Protestantism but eventually rebelled and renounced organized religion totally. Her early schooling was supplemented by assiduous reading, and the study of languages led to her first literary work, *Life of Jesus* (1846), a translation from the German of D. F. Strauss. After her father's death she became subeditor (1851) of the *Westminster Review*, contributed articles, and came to know many of the literary people of the day. In 1854 she began a long and happy union with G. H. Lewes, which she regarded as marriage, though it involved social ostracism and could have no legal sanction because Lewes's estranged wife was living. Throughout his life Lewes encouraged Evans in her literary career; indeed, it is possible that without him Evans, subject to periods of depression and in constant need of reassurance, would not have written a word.

In 1856, Mary Ann began *Scenes of Clerical Life*, a series of realistic sketches first appearing in *Blackwood's Magazine* under the pseudonym Lewes chose for her, George Eliot. Although not a popular success, the work was well received by literary critics, particularly Dickens and Thackeray. Three novels of provincial life followed—*Adam Bede* (1859), *The Mill on the Floss* (1860), and *Silas Marner* (1861). She visited Italy in 1860 and again in 1861 before she brought out in the *Cornhill Magazine* (1862–63) her historical romance *Romola*, a story of Savonarola. *Felix Holt* (1866), a political novel, was followed by *The Spanish Gypsy* (1868), a dramatic poem. *Middlemarch* (1871–72), a portrait of life in a provincial town, is considered her masterpiece. She wrote one more novel, *Daniel Deronda* (1876); the satirical *Impressions of Theophrastus Such* (1879); and verse, which was never popular and is now seldom read. Lewes died in 1878, and in 1880 she married a close friend of both Lewes and herself, John W. Cross, who later edited *George Eliot's Life as Related in Her Letters and Journals* (3 vol., 1885–86). Writing about life in small rural towns, George Eliot was primarily concerned with the responsibility that people assume for their lives and with the moral choices they must inevitably make. Although highly serious, her novels are marked by compassion and a subtle humor.

See her letters (ed. by G. S. Haight, 7 vol., 1954–56); her collected essays (ed. by T. Pinney, 1964); biographies by L. and E. Hanson (1952), G. S. Haight (1968), F. R. Karl (1995), R. Ashton (1997), and K. Hughes (1999); studies by E. S. Haldane (1927), J. Thale (1959), B. Hardy (1967), D. Carroll, ed. (1971), T. S. Pearce (1973), and G. Beer (1983).

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Henry James said of Eliot, "She is magnificently ugly--deliciously hideous...in this vast ugliness resides a most powerful beauty which, in a very few minutes steals forth and charms the mind, so that you end as I ended, in falling in love with her." (Source: *University of Virginia Electronic Text Library*. <http://etext.lib.virginia.edu/english/eliot/middlemarch/bio.html>)



Robert Frost

(1874-1963)

American Poet

Frost, Robert, born in San Francisco. Perhaps the most popular and beloved of 20th-century American poets, Frost wrote of the character, people, and landscape of New England. He was taken to Lawrence, Mass., his family's home for generations, at the age of 10. After studying briefly at Dartmouth, he worked as a bobbin boy in a cotton mill, as a cobbler, a schoolteacher, and a journalist; he later entered Harvard but left after two years to try farming. In 1912 he went to England, where he received his first acclaim as a poet. After the publication of *A Boy's Will* (1913) and *North of Boston* (1914), he returned to the United States, settling on a farm near Franconia, N.H. Frost taught and lectured at several universities, including Amherst, Harvard, and the Univ. of Michigan. In later life he was accorded many honors; he made several goodwill trips for the U.S. State Dept., and in 1961 he recited his poem "The Gift Outright" at the inauguration of President John F. Kennedy.

Among Frost's volumes of poetry are *New Hampshire* (1923), *West-running Brook* (1928), *Collected Poems* (1930), *A Further Range* (1936), *A Witness Tree* (1942), *Steeple Bush* (1947), and *In the Clearing* (1962). *A Masque of Reason* (1945) and *A Masque of Mercy* (1947) were blank verse plays. Although his work is rooted in the New England landscape, Frost was no mere regional poet. The careful local observations and homely details of his poems often have deep symbolic, even metaphysical, significance. His poems are concerned with human tragedies and fears, his reaction to the complexities of life, and his ultimate acceptance of his burdens. Frost was awarded the Pulitzer Prize for poetry in 1924, 1931, 1937, and 1943. Frost's critical reputation has recently rebounded after a period when his poetry was often criticized for being old-fashioned.

See his complete poems (1967); his *Collected Poems, Prose and Plays* (1995), ed. by R. Poirier and M. Richardson; his letters (1972), ed. by A. Grade; biographies by M. L. Mertens (1965), L. R. Thompson (2 vol., 1966-70, vol. III, with R. H. Winnick, 1976), W. H. Pritchard (1985), J. Meyers (1996), and J. Parini (1999); studies by R. A. Brower (1963), F. Lentricchia (1975), and R. Poirier (1977).

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Louis Agassiz Fuertes

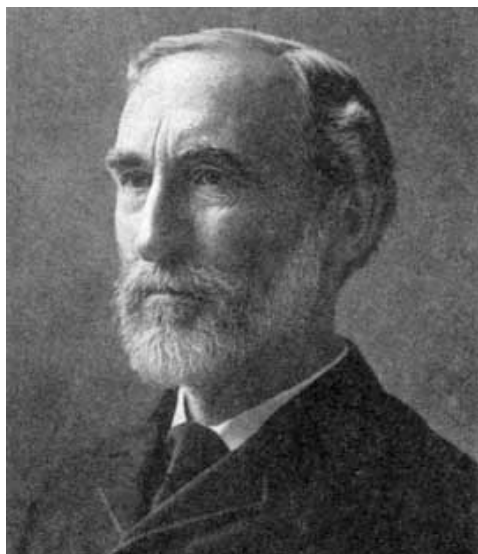
(1874-1927)

American Artist & Naturalist

Fuertes, Louis Agassiz, born in Ithaca, N.Y., grad. Cornell Univ., 1897. His paintings of birds appear in most of the leading American ornithological works published in the latter half of his lifetime. He is also known for his murals and for his habitat groups at the American Museum of Natural History. With W. H. Osgood he made a scientific expedition to Ethiopia (1926-27); *Artist and Naturalist in Ethiopia* (1936) is a joint account. Fuertes was killed accidentally a few months after his return.

See F. G. Marcham, ed., *Louis Agassiz Fuertes and the Singular Beauty of Birds* (1971).

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Josiah Willard Gibbs

(1839-1903)

American Mathematical Physicist

Gibbs, Josiah Willard, born in New Haven, Conn., grad. Yale, 1858. He studied abroad and was professor of mathematical physics at Yale from 1871. His father was a Yale University professor best known for finding translators for the mutineers of the Amistad slave ship. He had done so in order to help the mutineers tell their side of the story, which was very controversial at that time. In 1873, his first published work entitled "Graphical Methods in the Thermodynamics of Fluids" was released. He was 34 years of age at the time and was just starting to reveal his genius to the rest of the world. His first paper included the formula which he is probably most famous for: $dU = T dS - P dV$. His second published work came out that same year with the title of "A Method of Geometrical Representation of the Thermodynamic Properties of Substances by Means of Surfaces". His great contributions to physical chemistry and thermodynamics have had a profound effect on industry, notably in the production of ammonia. He formulated the concept of chemical potential. In mathematics he wrote on quaternions and was influential in developing vector analysis. His work in statistical mechanics was especially important. Gibbs also contributed to crystallography, the determination of planetary and comet orbits, and electromagnetic theory. James Clerk Maxwell was one of the first European scientists to recognize Gibbs as a theoretical physicist of international stature. Gibbs was also interested in the practical side of science; his doctorate was the first granted by Yale for an engineering thesis, and he received a patent (1866) for an improved type of railroad brake. His *Scientific Papers* appeared in 1906 (repr. 1961) and his *Collected Works* in 1928.

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Georg Händel

(1685-1759)

German-English Composer

Händel, Georg Friederich, English composer, born in Halle, Germany. Handel was one of the greatest masters of baroque music, most widely celebrated for his majestic oratorio *Messiah*. Of German descent, he was originally named Georg Friedrich Handel.

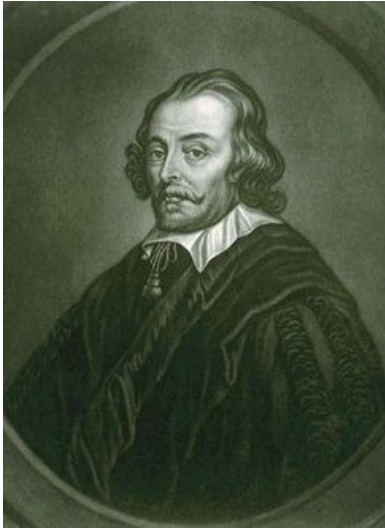
Son of a barber-surgeon, he early displayed musical talent and was sent to Friedrich Zachow, an organist and composer at Halle, for three years of training. After studying law at the Univ. of Halle (1703), he joined the opera orchestra at Hamburg. There his first two operas, *Almira* and *Nero*, were produced in 1705. The following four years were spent in Italy, where his operas *Rodrigo* (1707?) and *Agrippina* (1709) were staged, the latter very successfully. In Italy he met Alessandro Scarlatti and other masters and absorbed the Italian style and forms.

In 1710 Handel became musical director to the elector of Hanover but obtained leave to visit England in 1711, when his *Rinaldo* was produced in London. He returned to England in 1712 and took up permanent residence there. His employer, the elector, became George I of England in 1714. It was for the king that Handel composed his celebrated orchestral *Water Music* (1717).

Handel's *Messiah* was presented in Dublin in 1742. An essentially contemplative work, it stands apart from the rest of his 32 oratorios, which are dramatically conceived, and its immense popularity has resulted in the erroneous conception of Handel as primarily a church composer. Other outstanding oratorios are *Acis and Galatea* (1720), *Esther* (1732), *Israel in Egypt* (1736-37), *Saul* (1739), and *Judas Maccabeus* (1747).

Handel's sight became impaired in 1751, and by 1753 he was totally blind, but he continued to conduct performances of his works on occasion. He is buried in Westminster Abbey. Handel's musical style exemplifies the vigor and grandeur of the late German baroque and at the same time has English and Italian qualities of directness, clarity, and charm. He strongly influenced English composers for a century after his death, and, following a period of relative neglect, he has again come to be recognized as one of music's great figures.

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William Harvey

(1578-1657)

English Physician

Harvey, William, English physician considered by many to have laid the foundation of modern medicine, born in Folkestone, studied at Cambridge, M.D. Univ. of Padua, 1602. Returning to London, he became a physician of St. Bartholomew's Hospital and a lecturer at the College of Physicians, and he was later appointed court physician. Harvey was first to demonstrate the function of the heart and the complete circulation of the blood, a feat especially remarkable because it was accomplished without the aid of a microscope. Acceptance of his theories was slow in coming, and it was not until 1827 that they were fully substantiated. He also contributed greatly to the advance of comparative anatomy and embryology. His famous *Exercitatio anatomica de motu cordis et sanguinis in animalibus* [*On the Movement of the Heart and Blood in Animals*] was published in 1628.

See the translation of his writings by K. J. Franklin (1963); biography by G. L. Keynes (1966); study by G. Whitteridge (1971).

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Hypatia (of Alexandria)

(370-March 415)

Greek Mathematician and Astronomer

Hypatia (of Alexandria), Hypatia was the daughter of Theon of Alexandria who was a teacher of mathematics with the Museum of Alexandria in Egypt. Hypatia studied with her father, and with many others including Plutarch the Younger. She herself taught at the Neoplatonist school of philosophy. She became the salaried director of this school in 400. Hypatia corresponded with and hosted scholars from other cities. Synesius, Bishop of Ptolemais, was one of her correspondents and he visited her frequently.

Hypatia was a popular lecturer, drawing students from many parts of the empire.

From the little historical information about Hypatia that survives, it appears that she invented the plane astrolabe, the graduated brass hydrometer, and the hydroscope, with Synesius of Greece, who was her student and later colleague. Hypatia dressed in the clothing of a scholar or teacher, rather than in women's clothing. She moved about freely, driving her own chariot, contrary to the norm for women's public behavior. She exerted considerable political influence in the city.

Orestes, the governor of Alexandria, was an adversary of the new Christian bishop, Cyril, a future saint. Orestes, according to the contemporary accounts, objected to Cyril expelling the Jews from the city, and was murdered by Christian monks for his opposition.

Cyril's preaching against Hypatia is said to have been what incited a mob led by fanatical Christian monks in 415 to attack Hypatia as she drove her chariot through Alexandria. They dragged her from her chariot and, according to accounts from that time, stripped her, killed her, stripped her flesh from her bones, scattered her body parts through the streets, and burned some remaining parts of her body in the library of Caesareum.

Hypatia's students fled to Athens, where the study of mathematics flourished after that. The Neoplatonic school she headed continued in Alexandria until the Arabs invaded in 642.

When the library of Alexandria was burned by the Arab conquerors, used as fuel for baths, the works of Hypatia were destroyed. We know her writings today through the works of others who quoted her -- even if unfavorably -- and a few letters written to her by contemporaries.

8-31-2011 <http://womenshistory.about.com/od/hypati1/a/hypatia.htm>



James Joyce

(1882-1941)

Irish Novelist

Joyce, James, Irish novelist. Perhaps the most influential and significant novelist of the 20th cent., Joyce was a master of the English language, exploiting all of its resources. His novel *Ulysses*, which is among the great works of world literature, utilizes many radical literary techniques and forms.

The eldest of ten children born in a Dublin suburb, Joyce was educated at Jesuit schools – Clongowes Wood College in Clane (1888-91) and Belvedere College in Dublin (1893-99) – and then attended University College in Dublin (1899-1902). Although a brilliant student, he was only sporadically interested in the official curriculum. In 1902 he lived briefly in Paris and returned to the Continent in 1904 with Nora Barnacle, the woman who would eventually become his wife. For the next 25 years Joyce, Nora, and their children lived at various times in Trieste, Zürich, and Paris.

Joyce and his family spent the years of World War I in Zürich, where he finished his novel *A Portrait of the Artist as a Young Man*. It first appeared in *The Egoist*, a periodical edited by Harriet Shaw Weaver, and was published in book form in 1916. In 1917, Joyce contracted glaucoma; for the rest of his life he would endure pain, periods of near blindness, and many operations. At this time he also wrote his only play, the Ibsenesque *Exiles* (1918).

Ulysses, written between 1914 and 1921, was published in parts in *The Little Review* and *The Egoist*, but Joyce encountered the same opposition to publishing the novel in book form that he had confronted with *Dubliners*. It was published in Paris in 1922 by Shakespeare & Company, a bookstore owned by Sylvia Beach, an American expatriate. Its publication was banned in the United States until 1933. For many years he lived mainly on money donated by patrons, notably Harriet Shaw Weaver.

From 1922 until 1939 Joyce worked on *Finnegans Wake* (1939), a complex novel that attempts to connect multiple cycles of Irish and human history into the framework of a single night's events in the family of a Dublin publican. In 1931 Joyce finally married Nora. Her practical, sometimes cynical response to Joyce's work provided a needed complement to his own self-absorption. Joyce and Nora had a turbulent relationship; both were profoundly affected by the progressive insanity of their daughter. Joyce died in Zürich in 1941 after an operation for a perforated duodenal ulcer.

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Frida Kahlo

(1907-1954)

Mexican Painter

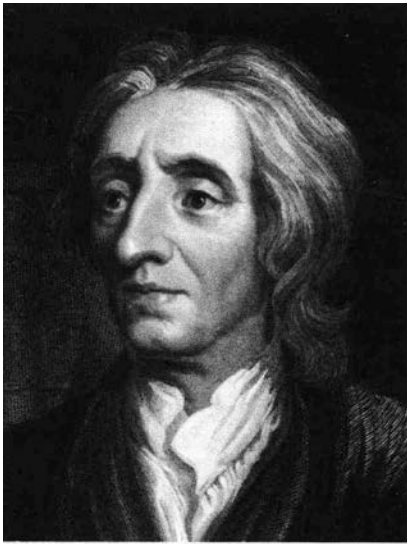
Frida Kahlo de Rivera (July 6, 1907 – July 13, 1954; born Magdalena Carmen Frieda Kahlo y Calderón) was a Mexican painter, born in Coyoacán, and perhaps best known for her self-portraits.

Kahlo's life began and ended in Mexico City, in her home known as the Blue House. She gave her birth date as July 7, 1910, but her birth certificate shows July 6, 1907. Kahlo had allegedly wanted the year of her birth to coincide with the year of the beginning of the Mexican revolution so that her life would begin with the birth of modern Mexico. At the age of six, Frida developed polio, which caused her right leg to appear much thinner than the other. It was to remain that way permanently. Her work has been celebrated in Mexico as emblematic of national and indigenous tradition, and by feminists for its uncompromising depiction of the female experience and form.

Mexican culture and Amerindian cultural tradition are important in her work, which has been sometimes characterized as Naïve art or folk art. Her work has also been described as "surrealist", and in 1938 André Breton, principal initiator of the surrealist movement, described Kahlo's art as a "ribbon around a bomb"

Kahlo had a volatile marriage with the famous Mexican artist Diego Rivera. She suffered lifelong health problems, many of which derived from a traffic accident during her teenage years. These issues are represented in her works, many of which are self-portraits of one sort or another. Kahlo suggested, "I paint myself because I am so often alone and because I am the subject I know best."

8-29-2011 http://en.wikipedia.org/wiki/Frida_Kahlo



John Locke

(1632-1704)

English Philosopher

Locke, John, English philosopher, founder of British empiricism. Locke summed up the Enlightenment in his belief in the middle class and its right to freedom of conscience and right to property, in his faith in science, and in his confidence in the goodness of humanity. His influence upon philosophy and political theory has been incalculable

Educated at Christ Church College, Oxford, he became (1660) a lecturer there in Greek, rhetoric, and philosophy. He studied medicine, and his acquaintance with scientific practice had a strong influence upon his philosophical thought and method.

In the *Essay Concerning Human Understanding* Locke examines the nature of the human mind and the process by which it knows the world. Repudiating the traditional doctrine of innate ideas, Locke believed that the mind is born blank, a *tabula rasa* upon which the world describes itself through the experience of the five senses. Knowledge arising from sensation is perfected by reflection, thus enabling humans to arrive at such ideas as space, time, and infinity. The clear, common-sense style of the *Essay* concealed many unexplored assumptions that the later empiricists George Berkeley and David Hume would contest, but the problems that Locke set forth have occupied philosophy in one way or another ever since.

Locke is most renowned for his political theory. Contradicting Thomas Hobbes, Locke believed that the original state of nature was happy and characterized by reason and tolerance. In that state all people were equal and independent, and none had a right to harm another's "life, health, liberty, or possessions." The state was formed by social contract because in the state of nature each was his own judge, and there was no protection against those who lived outside the law of nature. The state should be guided by natural law.

Rights of property are very important, because each person has a right to the product of his or her labor. Locke forecast the labor theory of value. The policy of governmental checks and balances, as delineated in the Constitution of the United States, was set down by Locke, as was the doctrine that revolution in some circumstances is not only a right but an obligation.

Locke based his ethical theories upon belief in the natural goodness of humanity. The inevitable pursuit of happiness and pleasure, when conducted rationally, leads to cooperation, and in the long run private happiness and the general welfare coincide. Immediate pleasures must give way to a prudent regard for ultimate good, including reward in the afterlife. He argued for broad religious freedom in three separate essays on toleration but excepted atheism and Roman Catholicism, which he felt should be legislated against as inimical to religion and the state. In his essay *The Reasonableness of Christianity* (1695), he emphasized the ethical aspect of Christianity against dogma.

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Maria Mayer

(1906-1972)

Polish-American Physicist

Mayer, Maria, a Polish-born physicist and Nobel laureate. Also known as Maria Goeppert-Mayer. Her family moved to Göttingen in 1910 when her father Friedrich was appointed Professor of Pediatrics at the University of Göttingen. From a young age, she was surrounded by the students and lecturers from the university, intellectuals including the future Nobel winners, Enrico Fermi, Werner Heisenberg, Paul Dirac and Wolfgang Pauli. Among her professors at Göttingen were three future Nobel prize winners: Max Born, James Franck and Adolf Otto Reinhold Windaus. Goeppert completed her Doctor of Philosophy degree (Ph.D.) at the University of Göttingen in 1930, and in that same year, she married Dr. Joseph Edward Mayer. The new couple next moved to the United States, Mayer's home country.

It was during her time at Chicago and Argonne that she developed a mathematical model for the structure of nuclear shells, the work for which she was awarded the Nobel Prize in Physics in 1963, shared with J. Hans D. Jensen and Eugene Paul Wigner. Goeppert-Mayer's model explained "why certain numbers of nucleons in the nucleus of an atom cause an atom to be extremely stable". She postulated, against the received wisdom of the time, that the nucleus is like a series of closed shells and pairs of neutrons and protons like to couple together in what is called spin orbit coupling.

At the same time, there were German scientists working on exactly the same thing. After, they had published their results, Goeppert-Mayer sought to collaborate with them. One from the German team, Jensen, worked with her to produce a book in 1950 called Elementary Theory of Nuclear Shell Structure. In 1963, Goeppert-Mayer and Jensen shared the Nobel Prize for Physics "...for their discoveries concerning nuclear shell structure." She was quoted as saying, "Winning the prize wasn't half as exciting as doing the work."

During the 1940s and early 1950s, Goeppert-Mayer worked out equations in optical opacity, while working for Edward Teller - equations that were used for Teller's and others' work in the design of the first hydrogen bomb (detonated on November 1, 1952).

In 1960, Goeppert-Mayer was appointed to a position as a (full) Professor of Physics at the University of California at San Diego. Although she suffered from a stroke shortly after arriving there, she continued to teach and conduct research for a number of years.

Wikipedia 12-16-2010 www.wikipedia.com



Barbara McClintock

(1902-1992)

American Geneticist

McClintock, Barbara, 1902–92, American geneticist. She discovered that certain genetic material, “transposable elements,” shifted its location in the chromosomes from generation to generation. At first ignored, her research was later recognized as a major contribution to DNA research. In 1983 she was awarded the Nobel Prize in Physiology or Medicine.

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Gregor Johann Mendel

(1822-1884)

Austrian Monk & Geneticist

Mendel, Gregor Johann, Austrian monk noted for his experimental work on heredity. He entered the Augustinian monastery in Brno in 1843, taught at a local secondary school, and carried out independent scientific investigations on garden peas and other plants until his election as prelate in 1868. Failing eyesight and his duties as prelate somewhat curtailed his researches; although he anticipated Oscar Hertwig's discovery that fertilization of an egg involved only one male sex cell, these findings went unpublished.

Mendel was the first to fashion, by means of a controlled pollination technique and careful statistical analysis of his results, a clear, analytic picture of heredity. His account of the experiments and his conclusions, published in 1866 (tr. *Experiments in Plant Hybridization*, 1926), were ignored during his lifetime. Rediscovered by three separate investigators (Correns, De Vries, and Tschermak) in 1900, Mendel's conclusions have become the basic tenets of genetics and a notable influence in plant and animal breeding.

Mendelism: Mendelism is the system of heredity formulated from Mendel's conclusions. Briefly summarized, as we understand it today by means of the science of genetics, the Mendelian system states that an inherited characteristic is determined by the combination of a pair of hereditary units, or genes, one from each of the parental reproductive cells, or gametes. In the body cells each pair of genes determines a particular hereditary characteristic (e.g., in the pea plant, a pair determining tallness or dwarfness).

See biography of Mendel by V. Ore (1984); see also R. C. Olby, *The Origins of Mendelism* (2d ed. 1985).

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Gabriela Mistral

(1889-1957)

American Novelist

Mistral, Gabriela, Chilean poet whose original name was Lucila Godoy Alcayaga. She was a teacher in and director of rural schools in Chile before she attained wider acclaim as an educator. Mistral was noted for her revision of the Mexican school system under José Vasconcelos . Subsequently, she served as Chilean consul in various European and Latin American cities and represented her country at the League of Nations and the United Nations. The mystery of childbearing, the sorrow of a tragic love, and a burning desire for justice are recurrent themes of her fluent and lyric verse. The early *Sonetos de la muerte* [sonnets of death] (1915) is considered one of her finest achievements. *Desolación* (1922), *Tala* (1938), and *Lagar* (1954) are three of her major volumes. *Selected Poems*, translated by Langston Hughes, was published in 1957. In 1945, Mistral received the Nobel Prize in Literature, the first Latin American to be so honored.

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Shikibu Murasaki

(970 – 1004 CE)

Japanese Novelist

Murasaki Shikibu, Japanese novelist, court figure at the height of the Heian period (795–1185). Known also as Lady Murasaki, she is celebrated as the author of the romantic novel *Genji-Monogatari* [tale of Genji], one of the first great works of fiction to be written in Japanese. It concerns the life of Prince Genji and his descendants and is a subtle and thorough delineation of a complex society.

See her diary translated by R. Bowring (1982); modern translations of *Genji* by E. G. Seidensticker (1978) and R. Tyler (2001).

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“Heian aristocrats spent little time and energy writing scholarly essays and the like. The majority of what they wrote was poetry, and sometimes poems even substituted for memoranda in government offices. Nearly any event or occasion, public or private, called for rounds of poetry. A person deficient in poetic skills would have been at a serious disadvantage in Heian society. In their poems, the aristocrats delighted in obscure references and plays on words. Poetry was the ideal medium for communicating in a delicate, refined and indirect way. Taking a specific example, one night Murasaki Shikibu, author of the *Tale of Genji*, was awakened by a man tapping on the shutter of her bedroom--a sure sign of someone wanting to gain admittance. Suspecting who it might be, and wanting to have nothing to do with him, she lay still and did not respond. The next morning, she received the following poem (brought by messenger, as was typical) from the powerful and lecherous Fujiwara Michinaga, the man who had been tapping on the shutter the night before:

How sad for him who stands the whole night long
Knocking on your cedar door
Tap-tap-tap like the cry of the kuina bird.

The reply to such a poem should ideally follow up on the image presented in the initial verse, the *kuina* bird (a small water-rail) in this case. Murasaki answered:

Sadder for her who had answered the kuina's tap,
For it was no innocent bird who stood there knocking on the door.

One can imagine that such an exchange might be carried out in a much less refined fashion in a different time or place.”

Source: *Pennsylvania State University East Asian Studies On-Line Textbook* (HIST 172).
<http://www3.psu.edu/textbooks>.



Sir Isaac Newton

(1642-1727)

English Mathematician & Physicist

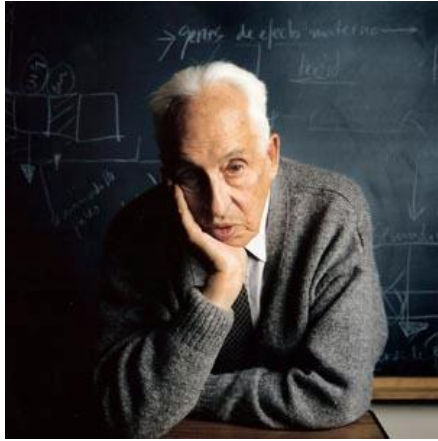
Newton, Sir Isaac, English mathematician and natural philosopher (physicist), who is considered by many the greatest scientist that ever lived. Newton studied at Cambridge and was professor there from 1669 to 1701, succeeding his teacher Isaac Barrow as Lucasian professor of mathematics. His most important discoveries were made during the two-year period from 1664 to 1666, when the university was closed and he retired to his hometown of Woolsthorpe. At that time he discovered the law of universal gravitation, began to develop the calculus, and discovered that white light is composed of all the colors of the spectrum. These findings enabled him to make fundamental contributions to mathematics, astronomy, and theoretical and experimental physics.

Newton summarized his discoveries in terrestrial and celestial mechanics in his *Philosophiae naturalis principia mathematica* [mathematical principles of natural philosophy] (1687), one of the greatest milestones in the history of science. In it he showed how his principle of universal gravitation provided an explanation both of falling bodies on the earth and of the motions of planets, comets, and other bodies in the heavens. The first part of the *Principia* is devoted to dynamics and includes Newton's three famous laws of motion; the second part to fluid motion and other topics; and the third part to the system of the world, i.e., the unification of terrestrial and celestial mechanics under the principle of gravitation and the explanation of Kepler's laws of planetary motion. Although Newton used the calculus to discover his results, he explained them in the *Principia* by use of older geometric methods.

Newton's discoveries in optics were presented in his *Opticks* (1704), in which he elaborated his theory that light is composed of corpuscles, or particles. His corpuscular theory dominated optics until the early 19th cent., when it was replaced by the wave theory of light. The two theories were combined in the modern quantum theory. Among his other accomplishments were his construction (1668) of a reflecting telescope and his anticipation of the calculus of variations, founded by Gottfried Leibniz and the Bernoullis. In later years Newton considered mathematics and physics a recreation and turned much of his energy toward alchemy, theology, and history, particularly problems of chronology.

Newton was his university's representative in Parliament (1689-90, 1701-2) and was president of the Royal Society from 1703 until his death. He was made warden of the mint in 1696 and master in 1699, being knighted in 1705 in recognition of his services at the mint as much as for his scientific accomplishments. Although Newton was known as an open and generous person, at various times in his life he became involved in quarrels and controversies. The most notable was his dispute with Leibniz over which of them had first invented calculus; today they are jointly ascribed the honor.

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Severo Ochoa

(1905-1993)

Spanish born American
biochemist and educator

Severo Ochoa Spanish born American biochemist and educator. Graduate at the University of Madrid in 1929. After teaching at the universities of Madrid, Heidelberg, and Oxford, he came to the United States in 1940. In 1954 he was appointed chairman of the department of biochemistry at New York Univ.

In 1955, while researching high-energy phosphates, he discovered an enzyme in bacteria that enabled him to synthesize RNA. The enzyme normally breaks down RNA, but in a test tube it runs its natural reaction in reverse. It has been valuable in enabling scientists to understand and recreate the process whereby the hereditary information contained in genes is translated into enzymes that determine each cell's functions and character.

He became an American citizen in 1956. With Arthur Kornberg he received the 1959 Nobel Prize in Physiology or Medicine for the synthesis of ribonucleic acid (RNA), an organic compound that carries hereditary qualities in all reproduction.

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Georgia O'Keeffe

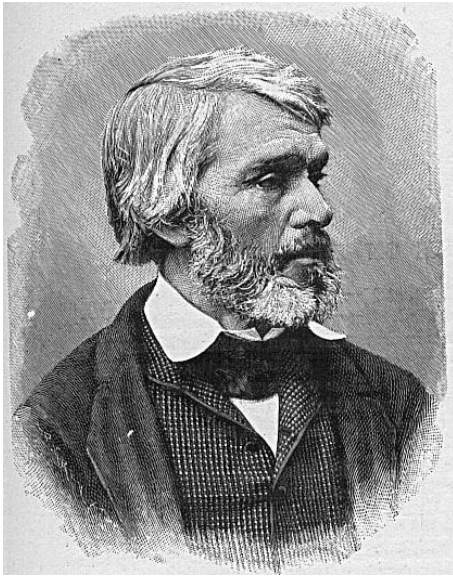
(1887-1986)

American Painter

O'Keeffe, Georgia, American painter, born in Sun Prairie, Wis. After working briefly as a commercial artist in Chicago, O'Keeffe abandoned painting until she began the study of abstract design with A. W. Dow at Columbia Univ. Teachers College. Thereafter she taught art in Texas. Her work was first exhibited in 1916 at the 291 Gallery of Alfred Stieglitz, whom she married in 1924. Immaculate, sculptural, organic forms painted in strong, clear colors predominate in her works. Living much of her life in New Mexico, O'Keeffe employed numerous Southwestern motifs such as bleached bones, barren, rolling hills, clouds, and desert blooms. *Cow's Skull, Red, White, and Blue* (1931; Metropolitan Mus.) is characteristic. Her pristine abstract designs carry strong elements of sexual symbolism—especially her flower paintings, her most personal works. Using a photographic close-up technique, she revealed the exquisite recesses of calla lilies, orchids, and hollyhocks. Her later works are more purely abstract. O'Keeffe is represented in a Santa Fe museum devoted to her works and in major museums nationwide.

See her collected drawings (1968); biographies by L. Lisle (1987) and R. Robinson (1989); J. Cowart and J. Hamilton, *Georgia O'Keeffe: Art and Letters* (1987).

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Robert Owen

(1771-1858)

British Social Reformer

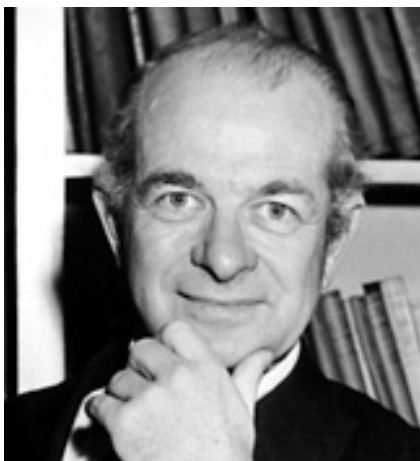
Owen, Robert, British social reformer and socialist, pioneer in the cooperative movement. The son of a saddler, he had little formal education but was a zealous reader. At the age of 10 he began working in the textile business and by 1794 had become a successful cotton manufacturer in Manchester.

In 1800, Owen moved to New Lanark, Scotland, where he had bought, with others, the mills of David Dale (whose daughter he married). There he reconstructed the community into a model industrial town with good housing and sanitation, nonprofit stores, schools, and excellent working conditions. Mill profits increased. The New Lanark experiment became famous in England and abroad, and Owen's ideas spread. He instigated the reform that resulted in the passage of the Factory Act of 1819—a watered down version of his proposals, but still a landmark in social reform. He also proposed the formation of self-sufficient cooperative agricultural-industrial communities. One such community, called New Harmony, was established (1825) in Indiana but failed after numerous disagreements among its members.

Professing a disbelief in religion (1817) and calling for the transformation of society rather than its reform (1820), Owen gradually lost much of his former upper-class support but was embraced by the working classes. After his return (1829) from the United States he became involved in the trade union movement and advocated the merging of unions with cooperative societies. Soon, however, the government took repressive action, and many workers responded by proclaiming the need for class struggle. Believing in the peaceful reordering of society, Owen ended his association with trade unionism and spent the last 25 years of his life writing and lecturing on his beliefs on education, marriage, and religion. Throughout his life Owen based his social programs on the idea that individual character is molded by environment and can be improved in a society based upon cooperation. Chief among his extensive writings are *New View of Society; or, Essays on the Formation of Character* (3 vol., 1813–14), *Report to the County of Lanark* (1821), and his autobiography (1857–58, repr. 1970).

See biographies by F. Podmore (1907, repr. 1971), G. D. H. Cole (3d ed. 1966), R. H. Harvey (1949), and M. I. Cole (1953, repr. 1969); studies by A. Morton (1962); J. Butts, ed. (1971), and R. G. Garnett (1973).

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Linus Carl Pauling

(1901-1994)

American Chemist

Pauling, Linus Carl, American chemist, is the only person to have won two undivided Nobel prizes (in chemistry in 1954 and the Nobel Peace Prize in 1962). He is best known for his work on molecular structure, the nature of the chemical bond, and the effects of various chemical agents on the human body.

Pauling was born on February 28, 1901, in Portland, Oregon, the son of a pharmacist. In 1922, he received his bachelor's degree from Oregon State College. He then became a doctoral student at California Institute of Technology (CIT), from which he received his doctoral degree in 1925. In 1927, Pauling was appointed assistant professor at CIT, and four years thereafter became chairman of the Department of Chemistry and Chemical Engineering, a position he held until 1964. Meanwhile, between 1963 and 1967, he was a professor at the Center for the Study of Democratic Institutions at Santa Barbara. From 1969 until his death he was affiliated with Stanford University.

Pauling made significant contributions to molecular biology and organic chemistry. His work focused on the spatial architecture of molecules, and the relationship between molecular structure and molecular behavior. The theory of resonance, which Pauling first formulated, has since explained certain properties of the carbon compounds, particularly the subgroup known as the aromatics .

For this work, Pauling was awarded the 1954 Nobel Prize in chemistry. During World War II, Pauling worked as a part of the National Defense Research Committee and the Research Board for National Security, helping design substitutes for human serum and blood plasma, rocket propellants, and an oxygen efficiency indicator.

As a result of the dropping of the atomic bomb at the end of the war, Pauling became concerned about the negative effects that nuclear fallout has on the molecules of the human body. After the war, Pauling became a member of Albert Einstein's Emergency Committee of Atomic Scientists, as well as of many other pro-peace organizations that formed in the 1950s. Among other things, he protested the development of the hydrogen bomb and vigorously promoted the adoption of a nuclear test ban treaty.

In 1962, Pauling won the Nobel Peace Prize for his work toward the nuclear test ban treaty. In addition, he was one of seven individuals awarded the International Lenin Peace Prize in 1968-1969. The U.S. government gave him the National Medal of Science in 1975.

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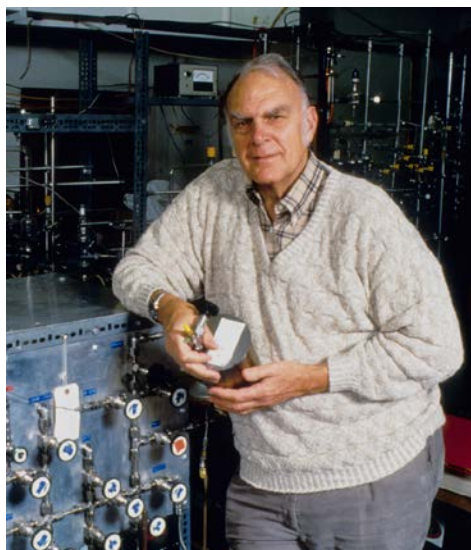
Frances Perkins

(1882-1965)

U.S. Secretary of Labor

Perkins, Frances, U.S.. Secretary of Labor (1933–45), born in Boston. She worked at Hull House, was executive secretary of the New York Consumers' League (1910–12) and of the New York Committee on Safety (1912–17), and directed (1912–13) investigations for the New York state factory commission. She became an authority on industrial hazards and hygiene and began lobbying in Albany for more comprehensive factory laws and for maximum-hour laws for women. Gov. Alfred E. Smith appointed (1923) her to the New York State Industrial Board, and later she served (1926–29) as its chairman. Gov. Franklin Delano Roosevelt named her (1929) industrial commissioner of New York state to direct the enforcement of factory and labor laws. As President, Roosevelt appointed her U.S. Secretary of Labor—the first appointment of a woman to the U.S. cabinet. Her appointment was bitterly criticized by business, labor, and political leaders. As Secretary of Labor, she promoted adoption of the Social Security Act, advocated higher wages, urged legislation to alleviate industrial strife, and helped standardize state industrial legislation. After she resigned, she served (1946–52) as a member of the U.S. Civil Service Commission. Besides books on labor problems, she wrote *The Roosevelt I Knew* (1946).

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Sherwood Rowland

(1927-2012)

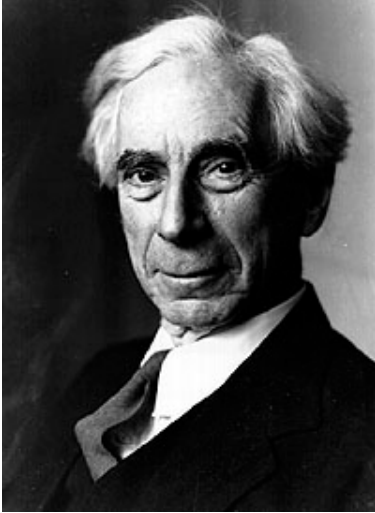
American Physicist, Nobel Laureate,
and UC Irvine faculty

F. Sherwood Rowland, American chemist who shared the 1995 Nobel Prize for Chemistry with chemists Mario Molina and Paul Crutzen for research on the depletion of the Earth's ozone layer. Working with Molina, Rowland discovered that man-made chlorofluorocarbon (CFC) propellants accelerate the decomposition of the ozonosphere, which protects the Earth from ultraviolet radiation. Their findings eventually brought about international changes in the chemical industry.

Rowland was educated in his hometown at Ohio Wesleyan University (B.A., 1948) and at the University of Chicago (M.S., 1951; Ph.D., 1952). He held academic posts at Princeton University (1952–56) and at the University of Kansas (1956–64) before becoming a professor of chemistry at the University of California, Irvine, in 1964. At Irvine in the early 1970s he began working with Molina. Rowland was elected to the National Academy of Sciences in 1978.

Rowland and Molina theorized that CFC gases combine with solar radiation and decompose in the stratosphere, releasing atoms of chlorine and chlorine monoxide that are individually able to destroy large numbers of ozone molecules. Their research, first published in *Nature* magazine in 1974, initiated a federal investigation of the problem. The National Academy of Sciences concurred with their findings in 1976, and in 1978 CFC-based aerosols were banned in the United States. Further validation of their work came in the mid-1980s with the discovery of the so-called hole in the ozone shield over Antarctica. In 1987 an international protocol to ban the production of ozone-depleting gases was negotiated by the United Nations in Montreal.

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Bertrand Russell

(1872-1970)

British Philosopher, Mathematician,
& Social Reformer

Russell, Bertrand Arthur William Russell, 3d Earl, British philosopher, mathematician, and social reformer, born in Trelleck, Wales. Russell had a distinguished background: His grandfather Lord John Russell introduced the Reform Bill of 1832 and was twice prime minister; his parents were both prominent freethinkers; and his informal godfather was John Stuart Mill. Orphaned as a small child, Russell was reared by his paternal grandmother under stern puritanic rule. That experience powerfully affected his thinking on matters of morality and education. Russell studied at Trinity College, Cambridge (1890–94), where later he was a fellow (1895–1901) and a lecturer (1910–16). It was during this time that he published his most important works in philosophy and mathematics, *The Principles of Mathematics* (1903) and, with A. N. Whitehead, *Principia Mathematica* (3 vol., 1910–13), and also had as his student Ludwig Wittgenstein.

World War I had a crucial effect on Russell: until that time he had thought of himself as a philosopher and mathematician. Although he had already embraced pacifism, it was in reaction to the war that he became passionately concerned with social issues. His active pacifism at the time of the war inspired public resentment, caused him to be dismissed from Cambridge, attacked by former associates, and fined by the government (which confiscated and sold his library when he refused to pay), and led finally to a six-month imprisonment in 1918. From 1916 until the late 1930s, Russell held no academic position and supported himself mainly by writing and by public lecturing. In 1927 he and his wife, Dora, founded the experimental Beacon Hill School, which influenced the development of other schools in Britain and America.

One of his most important notions was that of the logical construct, the realization that an object normally thought of as a unity was actually constructed from various, discrete, simpler empirical observations. The technique of logical constructionism was first employed in his mathematical theory. Under the influence of the symbolic logic of Giuseppe Peano, Russell tried to show that mathematics could be explained by the rules of formal logic. His demonstration involved showing that mathematical entities could be “constructed” from the less problematic entities of logic. Later he applied the technique to concepts such as physical objects and the mind.

If Russell's logic was not always unassailable, his life showed that ethical relativism could be combined with a passionate social conscience, and that passionate commitment could be stated without dogmatism. In his autobiography (3 vol., 1967–69) Russell summarized his personal philosophy by saying, “Three passions, simple but overwhelmingly strong, have governed my life: the longing for love, the search for knowledge, and unbearable pity for the suffering of mankind.”

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Franz Schubert

(1797-1828)

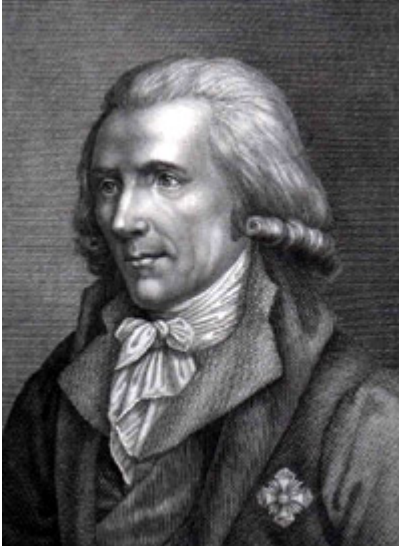
Austrian Composer

Schubert, Franz Peter, Austrian composer, one of the most gifted musicians of the 19th cent. His symphonic works represent the best legacy of the classical tradition, while his songs exemplify the height of romantic lyricism. Displaying remarkable talent in childhood, he was first taught to play the violin and piano by his father and his brother, and then studied the organ and singing at a local church. His beautiful voice gained him admittance in 1808 to the imperial chapel choir and the Royal Seminary, where he later studied composition with Salieri. Schubert wrote his first symphony in 1813, and in that year he left the Seminary. From 1814 to 1816 he taught at his father's elementary school, devoting his spare hours to composing lieder that give evidence of his inexhaustible melodic genius.

He wrote more than 600 songs, many to the lyrics of such German poets as Goethe, Schiller, and Heine. In addition to individual lyrics, such as the famous *Erkönig*, set to a ballad by Goethe, Schubert wrote such song cycles as *Die schöne Müllerin* (1823) and *Die Winterreise* (1827), both to poems of Wilhelm Müller. Schubert's symphonies are the final extension of the classical sonata forms, and three of them—the Fifth, in B Flat (1816), the Eighth, in B Minor (the *Unfinished*, 1822), and the Ninth, in C Major (1828)—rank with the finest orchestral music. The Quartet in D Minor (*Death and the Maiden*, 1824) and the Quintet in A Major (*The Trout*, 1819) are the best known of his mature chamber works. He also composed music for the stage, overtures, choral music, masses, and piano music, including 21 sonatas and shorter waltzes, scherzos, and impromptus. Except for a circle of admirers who were among the leading artists of the period, he gained little recognition before his death. He held only one musical appointment, that of music teacher to the children of a Hungarian nobleman, and he lived in poverty.

See O. E. Deutsch, *The Schubert Reader: A Life . . . in Letters and Documents* (tr. 1947); biographies by M. J. E. Brown (1958, repr. 1977), A. Einstein (1951, repr. 1981), and C. H. Gibbs (2000); studies by M. J. E. Brown (1966, repr. 1978) and B. Newbould (1992, 1997); C. H. Gibbs, ed., *The Cambridge Companion to Schubert* (1997).

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Benjamin Thompson

(1753-1814)

American-British Scientist & Administrator

Rumford, Benjamin Thompson, Count, American-British scientist and administrator, born in Woburn, Mass. In 1776 he went to England, where he served (1780–81) as undersecretary of the colonies, conducting significant experiments with gunpowder in his spare time. Later he entered the service of the elector of Bavaria as an administrator. He was knighted in 1784 and in 1791 was created count of the Holy Roman Empire. He chose his title from the name of the town Rumford (later Concord), N.H., where his wife was born. Returning to England (1795), he introduced improved methods of heating and cooking, and developed a more accurate theory of heat. In contrast to the prevalent belief that heat was a substance, he presented, in a paper (1798) to the Royal Society, the theory that heat was produced by the motion of particles. He founded the Royal Institution in England, established the Rumford medal of the Royal Society, and founded the Rumford professorship of chemistry at Harvard.

See biographies by E. Larsen (1953) and W. J. Sparrow (1964).

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Alan Turing

(1912-1954)

British Scientist & Mathematician

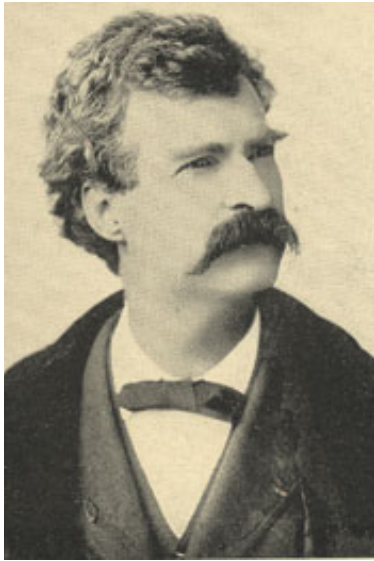
Alan Mathison Turing (23 June 1912 – 7 June 1954) was an English computer scientist, mathematician, logician, cryptanalyst and theoretical biologist. He was highly influential in the development of theoretical computer science, providing a formalisation of the concepts of algorithm and computation with the Turing machine, which can be considered a model of a general purpose computer. Turing is widely considered to be the father of theoretical computer science and artificial intelligence.

During the Second World War, Turing worked for the Government Code and Cypher School (GC&CS) at Bletchley Park, Britain's codebreaking centre. For a time he led Hut 8, the section responsible for German naval cryptanalysis. He devised a number of techniques for speeding the breaking of German ciphers, including improvements to the pre-war Polish bombe method, an electromechanical machine that could find settings for the Enigma machine. Turing played a pivotal role in cracking intercepted coded messages that enabled the Allies to defeat the Nazis in many crucial engagements, including the Battle of the Atlantic; it has been estimated that this work shortened the war in Europe by more than two years and saved over fourteen million lives.

After the war, he worked at the National Physical Laboratory, where he designed the ACE, among the first designs for a stored-program computer. In 1948 Turing joined Max Newman's Computing Machine Laboratory at the Victoria University of Manchester, where he helped develop the Manchester computers and became interested in mathematical biology. He wrote a paper on the chemical basis of morphogenesis, and predicted oscillating chemical reactions such as the Belousov-Zhabotinsky reaction, first observed in the 1960s.

Turing was prosecuted in 1952 for homosexual acts, when by the Labouchere Amendment; "gross indecency" was still criminal in the UK. He accepted chemical castration treatment, with DES, as an alternative to prison. Turing died in 1954, 16 days before his 42nd birthday, from cyanide poisoning. An inquest determined his death as suicide, but it has been noted that the known evidence is also consistent with accidental poisoning. In 2009, following an Internet campaign, British Prime Minister Gordon Brown made an official public apology on behalf of the British government for "the appalling way he was treated." Queen Elizabeth II granted him a posthumous pardon in 2013.

Source: Wikipedia contributors. "Alan Turing." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 7 Jan. 2017. Web. 7 Jan. 2017.



Mark Twain

(1835-1910)

American Author

Twain, Mark, pseud. of **Samuel Langhorne**

Clemens, American author, born in Florida, Mo. As humorist, narrator, and social observer, Twain is unsurpassed in American literature. His novel *The Adventures of Huckleberry Finn*, a masterpiece of humor, characterization, and realism, has been called the first (and sometimes the best) modern American novel.

After the death of his father in 1847, young Clemens was apprenticed to a printer in Hannibal, Mo., the Mississippi River town where he spent most of his boyhood. He first began writing for his brother's newspaper there, and later he worked as a printer in several major Eastern cities. In 1857, Clemens went to New Orleans on his way to make his fortune in South America, but instead he became a Mississippi River pilot—hence his pseudonym, “Mark Twain,” which was the river call for a depth of water of two fathoms. The Civil War put an end to river traffic, and in 1862 Clemens went West to Carson City, Nev., where he failed in several get-rich-quick schemes. He eventually began writing for the Virginia City *Examiner* and later was a newspaperman in San Francisco.

In Hartford, Twain wrote some of his best work: *The Gilded Age* (1873), a satirical novel written with Charles Dudley Warner about materialism and corruption in the 1870s; two evocations of his boyhood in Hannibal, *The Adventures of Tom Sawyer* (1876) and *The Adventures of Huckleberry Finn* (1884); *The Prince and the Pauper* (1882), a novel for children that blends the simplicity of a fairy tale with realistic social criticism; and the nonfictional *Life on the Mississippi* (1883). He also produced a travel book, *A Tramp Abroad* (1880), and *A Connecticut Yankee in King Arthur's Court* (1889), in which satirical overtones reflect a profound seriousness.

Some of Twain's later works are forced attempts at humor—*The American Claimant* (1892) and two sequels to *Tom Sawyer*. His distinctly bitter *Tragedy of Pudd'nhead Wilson* (1894) underscores his increasingly melancholy attitude. Over the years Twain had invested a great deal of money in unsuccessful printing and publishing ventures, and in 1893 he found himself deeply in debt. To recoup his losses he wearily lectured his way around the world, being funny at whatever cost, and recording his experiences in *Following the Equator* (1897).

His later life was shadowed by the deaths of two of his daughters and by the long illness and death in 1904 of his wife. Some critics think that the fierce pessimism of his later works derives from these tragedies. The strange contradiction in personality between the genial humorist and the declared misanthrope has long intrigued commentators and makes Twain a fascinating biographical subject.

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Clayton Urey

(1893-1981)

American Chemist

Urey, Harold Clayton, American chemist, born in Walkerton, Ind., grad. Univ. of Montana (B.S., 1917), Ph.D. Univ. of California, 1923. He taught at Johns Hopkins (1924-29), at Columbia (1929-45; as head of the department of chemistry from 1939 to 1942), and at the Univ. of Chicago (1945-58). He became professor-at-large at the Univ. of California in 1958. For his isolation of deuterium (heavy hydrogen) he received the 1934 Nobel Prize in Chemistry; he later isolated heavy isotopes of oxygen, nitrogen, carbon, and sulfur. During World War II, Urey took part in the research leading to the production of the atomic bomb; his special work was on methods of separating uranium isotopes and the production of heavy water. With A. E. Ruark he wrote *Atoms, Molecules, and Quanta* (1930).

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Felix Lope de Vega

(1562-1635)

Spanish Poet

Lope de Vega Félix, Spanish dramatic poet, founder of the Spanish drama, b. Madrid. Lope, born a peasant, was orphaned at an early age. He wrote the first of his nearly 1,800 plays at 12, and by 25 he was an established playwright and a celebrated wit. He was involved in countless amorous adventures and several scandals, one of which caused him to be banished from Madrid for some years. In 1588 he joined the Spanish Armada and, surviving the campaign, took up his theatrical career and acquired a lifelong patron, the duke of Sessa. Lope's first wife, Isabel de Urbino, was immortalized in his poetry and plays as Belisa.

Although he wrote lyric verse and several epic poems, his masterworks were his comedies. These graceful and vigorous plays combined the comic, the serious, and the ironic. Lope's themes were the varied aspects of honor, human dignity, justice, and the conflict of peasant and nobleman. He developed many genres, including historical drama, cloak-and-dagger love intrigues, and romantic extravaganzas, in addition to writing tragedies and religious plays. He invented a comic type known as *el gracioso*, which became a stalwart of Spanish theater. To hold the attention of his audiences, he kept the length of his plays relatively short, consciously ignored the classical unities, convoluted his plots to produce the unexpected, and wrote so as to be easily understood by the common people.

Adhering to these self-imposed rules, Lope gained the adulation of his public and the scorn of his rival, the classicist Góngora. Lope took religious orders in 1614 and achieved important church positions despite his continued love affairs. In his last years he finished *La Dorotea* (1632), an autobiographical novel begun in his youth. Nearly 500 of Lope's works are extant. Famed for vitality, wit, and ingenuity, they assure his position as the foremost and most prolific Spanish literary innovator.

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Virgil

(70 B.C. – 19 B.C.)

Roman Poet

Vergil or **Virgil** (Publius Vergilius Maro), Roman poet, born in Andes dist., near Mantua, in Cisalpine Gaul. Vergil's father, a farmer, took his son to Cremona for his education. Thereafter Vergil continued his studies in Milan, Naples, and Rome. The poet's boyhood experience of life on the farm was an essential part of his education. After his studies in Rome, Vergil is believed to have lived with his father for about 10 years, engaged in farm work, study, and writing poetry. In 41 B.C. the farm was confiscated to provide land for soldiers. Vergil went to Rome, where he became a part of the literary circle patronized by Maecenas and Augustus and where his *Eclogues*, or *Bucolics*, were completed in 37 B.C. In these poems he idealizes rural life in the manner of his Greek predecessor Theocritus. From the *Eclogues*, Vergil turned to rural poetry of a contrasting kind, realistic and didactic. In his *Georgics*, completed in 30 B.C., he seeks, as had the Greek Hesiod before him, to interpret the charm of real life and work on the farm. His perfect poetic expression gives him the first place among pastoral poets. For the rest of his life Vergil worked on the *Aeneid*, a national epic honoring Rome and foretelling prosperity to come. The adventures of Aeneas are unquestionably one of the greatest long poems in world literature. Vergil made Aeneas the paragon of the most revered Roman virtues—devotion to family, loyalty to the state, and piety. In 12 books, Vergil tells how Aeneas escaped from Troy to Carthage, where he became Dido's lover and related his adventures to her. At Jupiter's command, he left Carthage, went to Sicily, visited his father's shade in Hades, and landed in Italy. There he established the beginnings of the Roman state and waged successful war against the natives. The work ends with the death of Turnus at the hands of Aeneas. The verse, in dactylic hexameters, is strikingly regular, though Vergil's death left the epic incomplete and some of the lines unfinished. The sonority of the words and the nobility of purpose make the *Aeneid* a masterpiece. Vergil is the dominant figure in all Latin literature. His influence continued unabated through the Middle Ages, and many poets since Dante have acknowledged their great debt to him. Minor poems ascribed to Vergil are of doubtful authorship. The spelling *Virgil* is not found earlier than the 5th cent. A.D. For translations of the *Aeneid* see Allen Mandelbaum (1981) and Robert Fitzgerald (1983, 1985).

See biographies by F. J. H. Letters (1946), T. Frank (1922, repr. 1965), and B. Otis (1966); W. F. J. Knight, *Virgil, Epic and Anthropology* (1967); F. Cairns, *Virgil's Augustan Epic* (1989); K. W. Grandsen, *Virgil* (1990).

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Edith Wharton

(1862-1937)

American Novelist

Wharton, Edith Newbold Jones, American novelist, b. New York City, noted for her subtle, ironic, and superbly crafted fictional studies of New York society at the turn of the 20th cent. The daughter of a socially elect family, she was educated privately in New York and in Europe. In 1885 she married Edward Wharton, a Boston banker; after the first few years of marriage Edward Wharton became mentally ill, and the burden of caring for him fell upon his wife. Finally, in 1913, after she had settled permanently in France, Edith Wharton terminated the marriage by divorce.

Her early stories and tales were collected in *The Greater Inclination* (1899), *Crucial Instances* (1901), and *The Descent of Man* (1904); somewhat narrow in scope, they nevertheless show the unity of mood and the lucid, polished prose style of her more mature works. Much of her writing bears a resemblance to the fiction of Henry James, who was her close friend. However, the similarities are superficial, and in her best and most characteristic novels – *The House of Mirth* (1905) and *The Age of Innocence* (1920; Pulitzer Prize) – she asserts herself as a distinctive artist. Recreating the atmosphere of the unadventurous, ceremonious upper-class society of New York, she depicts in these and other works the cruelty of social convention, the changing fashions in morality, and the conflicts that arise between money values and moral values.

In the novella *Ethan Frome* (1911) – one of her best-known, most successful, and least characteristic works – Wharton evokes the tragic fate of three people against the stark background of rural New England. Among her many other novels are *The Valley of Decision* (1902), a historical novel of 18th-century Italy; *The Custom of the Country* (1913); *Hudson River Bracketed* (1929) and its sequel, *The Gods Arrive* (1932); and an unfinished work, *The Buccaneers* (1938). Collections of her short stories include *Xingu and Other Stories* (1916), *Certain People* (1930), and *Ghosts* (1937). Wharton also wrote travel books (e.g., *Italian Backgrounds*, 1905), books on interior design and architecture (e.g., *The Decoration of Houses*, 1897; *Italian Villas and Their Gardens*, 1904), literary criticism, and poetry. In 1915 she was awarded the Cross of the Legion of Honor by the French government for her services during World War I.

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Phyllis Wheatley

(1753-1784)

American Poet

Phillis Wheatley (1753 – December 5, 1784) was the first published African American poet and first African-American woman whose writings were published.[1] Born in Gambia, Senegal, she was made a slave at age seven. She was purchased by the Wheatley family of Boston, who taught her to read and write, and helped encourage her poetry.

The 1773 publication of Wheatley's *Poems on Various Subjects, Religious and Moral* brought her fame, with figures such as George Washington praising her work. Wheatley also visited England for five weeks accompanying her master's son and was praised in a poem by fellow African American poet Jupiter Hammon. Wheatley was emancipated by her owners after both her poetic success[2] and the death of her master, and she soon married. However, when her husband was imprisoned for debt in 1784, Wheatley fell into poverty and died of illness.

8-31-2011 http://en.wikipedia.org/wiki/Phillis_Wheatley



James Whistler

(1834-1903)

American Artist

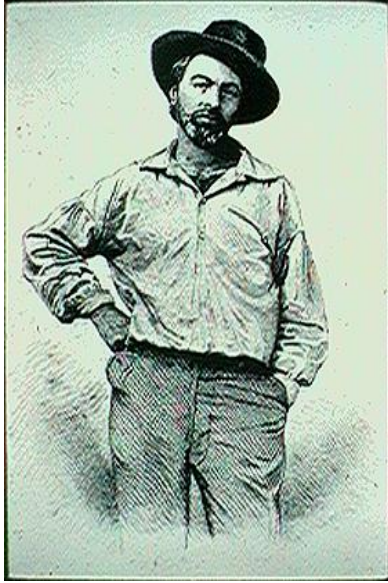
Whistler, James Abbott McNeill, , American painter, etcher, wit, and eccentric, born in Lowell, Mass. Whistler was dismissed from West Point for insufficient knowledge of chemistry and from the U.S. Coast and Geodetic Survey, where he had learned etching and map engraving, for erratic attendance. In 1855 he went to Paris, where he acquired a lifelong appreciation for the works of Velázquez and for Asian art, particularly the Japanese print. From these sources he developed a delicate sense of color and design evident in most of his mature works. His early work was largely inspired by the realism of Courbet. Settling in London in 1859, Whistler became known as an etcher, a wit, and a dandy. *The Little White Girl* (National Gall., Washington, D.C.) brought him his first major success in the Salon des Refusés (1863).

To advertise and defend his credo of art for art's sake, Whistler resorted to elaborate exhibits, lectures, polemics, and more than one lawsuit. In connection with his *Falling Rocket: Nocturne in Black and Gold* (Detroit Inst. of Arts) he sued Ruskin in 1878 for writing that Whistler asked "two hundred guineas for flinging a pot of paint in the public's face." Whistler explained that the harmonious arrangement of light, form, and color was the most significant element of his paintings. To de-emphasize their subjective content, he called them by fanciful, abstract titles such as *Nocturne in Black and Gold*, and *Arrangement in Gray and Black* (the famed portrait of the artist's mother, 1872; Louvre). Whistler won the argument in court but payment of the court costs left him bankrupt.

Fine examples of Whistler's painting are in the galleries of London, Paris, Pittsburgh, Washington, D.C., Chicago, and New York City. The most representative collection is that in the Freer Gallery of Art, Washington, D.C., which also contains an entire room that he decorated in a style that anticipated art nouveau, for the Leyland home in London—the so-called Peacock Room. *Nocturne in Green and Gold*, *Cremorne Gardens at Night*, portraits of Sir Henry Irving, Connie Gilchrist, Theodore Duret, and several others are all in the Metropolitan Museum. Other important works are his portrait of Thomas Carlyle (Glasgow) and *Old Battersea Bridge* (Tate Gall., London).

Whistler was the author of brilliant critical essays and aphorisms. The lecture published under the title *Ten O'clock* (1888) was of enormous influence in art theory. *The Gentle Art of Making Enemies* (1890) was a clever selection of snippets from the critics, accompanied by acerbic rejoinders from Whistler.

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Walt Whitman

(1892-1892)

American Poet

Whitman, Walt (Walter Whitman), American poet, born in West Hills, N.Y. Considered by many to be the greatest of all American poets, Walt Whitman celebrated the freedom and dignity of the individual and sang the praises of democracy and the brotherhood of man. His *Leaves of Grass*, unconventional in both content and technique, is probably the most influential volume of poems in the history of American literature.

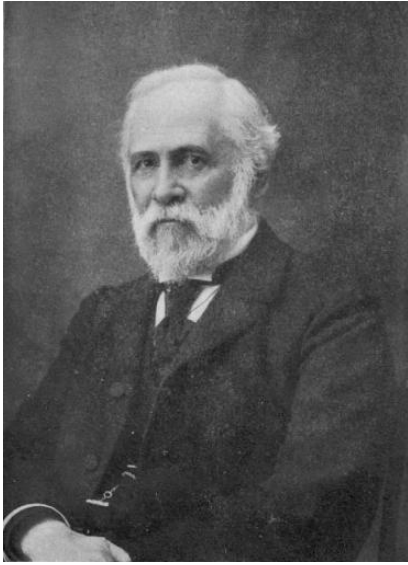
In 1855 Whitman published at his own expense a volume of 12 poems, *Leaves of Grass*, which he had begun working on probably as early as 1847. Prefaced by a statement of his theories of poetry, the volume included the poem later known as “Song of Myself,” in which the author proclaims himself the symbolic representative of common people. Although the book was a commercial failure, critical reviewers recognized the appearance of a bold new voice in poetry. Two larger editions appeared in 1856 and 1860, and they had equally little public success.

Leaves of Grass was criticized because of Whitman's exaltation of the body and sexual love and also because of its innovation in verse form—that it, the use of free verse in long rhythmical lines with a natural, “organic” structure. Emerson was one of the few intellectuals to praise Whitman's work, writing him a famous congratulatory letter. Whitman continued to enlarge and revise further editions of *Leaves of Grass*; the last edition prepared under his supervision appeared in 1892.

From 1862 to 1865 Whitman worked as a volunteer hospital nurse in Washington. His poetry of the Civil War, *Drum-Taps* (1865), reissued with *Sequel to Drum Taps* (1865–66), included his two poems about Abraham Lincoln, “When Lilacs Last in the Dooryard Bloom'd,” considered one of the finest elegies in the English language, and the much-recited “O Captain! My Captain!” For a while Whitman served as a clerk in the Dept. of the Interior, but he was discharged because *Leaves of Grass* was considered an immoral book.

Whitman was a complex person. He saw himself as the full-blooded, rough-and-ready spokesman for a young democracy, and he cultivated a bearded, shaggy appearance. Indeed, Whitman's early biographers John Burroughs and R. M. Bucke were so affected by the robust “I” of Whitman's poems and by the poet himself that they depicted him as a rowdy, sensual man, a great lover of women, and the father of several illegitimate children. Most of this was false. In reality Whitman was a quiet, gentle, circumspect man, robust in youth but sickly in middle age, who sired no children and is generally acknowledged to have been homosexual. Whitman had an incalculable effect on later poets, inspiring them to experiment in prosody as well as in subject matter.

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Charles Young

(1834-1908)

American Astronomer

Young, Charles Augustus, American astronomer, born in Hanover, N.H., grad. Dartmouth, 1853. He discovered the reversing layer of the solar atmosphere and proved the gaseous nature of the sun's corona. He was a pioneer in the study of the spectrum of the sun and experimented in photographing solar prominences in full sunlight. He was professor (1857-66) of astronomy, natural philosophy, and mathematics at Western Reserve College (now Case Western Reserve Univ.), professor of astronomy and natural philosophy at Dartmouth College (1866-77), and professor of astronomy at Princeton (1877-1905). His works include *The Sun* (1881, rev. ed. 1896), *Lessons in Astronomy* (1891, rev. ed. 1918), and *The Elements of Astronomy* (1890, rev. ed. 1919).

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Emile Zola

(1840-1902)

French Novelist

Zola, Émile , 1840–1902, French novelist, b. Paris. He was a professional writer, earning his living through journalism and his novels. About 1870 he became the apologist for and most significant exponent of French naturalism, a literary school that maintained that the novel should be scientific in a strict sense. Inspired by his readings in social history and medicine, Zola decided to apply scientific techniques and observations to the depiction of French society under the Second Empire. He composed a vast series of novels in which the characters and their social milieus are impartially observed and presented in minute and often sordid detail.

Of his many novels, those considered most important are among the 20 that constitute the series *Les Rougon-Macquart* (1871–93), an account of the decay of a family as the result of heredity and environment, with special emphasis on alcoholism, disease, and degeneracy. Perhaps the best known of these are *L'Assommoir* (1877, tr. *The Dram-Shop*), on lower-class life in Paris; *Nana* (1880); and *Germinal* (1885, tr. 1901), a “proletarian” novel involving coal mining in N France. He also began the socialistic *Quatre Évangiles* [four gospels], of which he finished *Fécondité* (1899, tr. *Fruitfulness*, 1900), *Travail* (1901, tr. *Labor*, 1901), and *Vérité* (1903, tr. *Truth*, 1903).

Zola had an ardent zeal for social reform. He was anti-Catholic and wrote many diatribes against the clergy and the Church. His part in the Dreyfus Affair (notably his article, “J'accuse,” 1898) was his most conspicuous public action, and he became the special object of the hatred of the anti-Dreyfus party. Prosecuted for libel (1898), he escaped to England, where he remained a few months until an amnesty enabled his return to France. He was accidentally asphyxiated in his bedroom after inhaling fumes from a blocked chimney.

See biographies by A. Schom (1988) and F. Brown (1995); studies by F. W. J. Hemmings (2d ed. 1966), A. Wilson (1952, repr. 1973), and D. Baguley (1986).

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