

ments was difficult. Additional work by other astronomers further refined how the relationship between absolute brightness and period could be accurately used to calculate distances greater than 10 million light-years, as well as to determine the actual distance between the Earth and a given star. This also gave astronomers a better idea as to the vastness of the heavens. It enabled Harlow Shapley to measure the size of the Milky Way galaxy.

Leavitt also discovered more variable stars during her career than had any other astronomer. Leavitt catalogued about 2400 variable stars while working at Harvard. At the time, this was about half the known variable stars. She also had discovered four novae and studied Algol-type eclipsing binary stars and asteroids as well.

Consequences of Consignment to Menial Tasks Mullied by Colleagues

As previously mentioned, Pickering dictated the work Leavitt and the other computers were to do. "If Leavitt had been free to choose her own research projects, she might have investigated the consequences of the period-luminosity relationship she had discovered," according to an excerpt from *Women of Science: Righting the Record* on a UCLA physics website. "Pickering hired people to do a specific job and didn't want them wasting their time doing anything else." That Leavitt was not given free reign to explore her passion for variable stars most likely impeded progress in the field. Cecilia Payne-Gaposchkin, one of these women who knew Leavitt, wrote that for Pickering to relegate her solely to photometry "was a harsh decision, which condemned a brilliant scientist to uncongenial work, and probably set back the study of variable stars for several decades."

Among the professional organizations of which she was a member were the American Association for the Advancement of Science and the Astronomical and Astrophysical Society of America. Leavitt was also an honorary member of the American Association of Variable Star Observers as well as a member of Phi Beta Kappa and The American Association of University Women.

"Miss Leavitt inherited, in a somewhat chastened form, the stern virtues of her puritan ancestors," Solon I. Bailey, a Harvard professor wrote of Leavitt in 1922, quoted on the AAVSO website. "She took life seriously. Her sense of duty, justice and loyalty was strong. For light amusements she appeared to care little. She was a devoted member of her intimate family circle, unselfishly considerate in her friendships, steadfastly loyal to her principles, and deeply conscientious and sincere in her attachment to her religion and church. She had the happy faculty of appreciating all that was worthy and lovable in others, and was possessed of a nature so full of sunshine that, to her, all of life became beautiful and full of meaning."

Honored by Nobel Committee

Leavitt worked at Harvard until her death. She died of cancer December 21, 1921, in Cambridge, Massachusetts. Her colleagues mourned her passing, in particular the void her death created. Some of her colleagues thought her to

have been the brightest among them. She had made an irreplaceable contribution to the field.

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Ernesto Lecuona

Ernesto Lecuona (1896–1963) remains Cuba's best known and perhaps the nation's most prolific composer. Of his more than 1000 compositions, his most popular works remain standards in Latin music. These include popular tunes such as "Malagueña" and "Siboney." His work was not confined to popular compositions, but spanned a variety of musical forms. Lecuona was also a noted pianist and conductor.

Acknowledged as a Child Prodigy

Lecuona was born Ernesto Sixto de la Asuncion Lecuona y Casado in Guanabacoa, Cuba, on August 7, 1896. His father was a newspaper editor. His siblings, two sisters and four brothers, were all musicians. He first studied with his elder sister Ernestina, also a classically trained pianist. Several of his other siblings also studied piano. Lecuona made his performing debut at five years old. He was considered by all accounts a prodigy.

He studied music theory with Joaquin Nin, the Spanish composer and father of the writer Anais Nin. His first composition, a two-step often performed by Cuban military bands, was published when he was 11. He was frequently performing and organizing various musical groups to perform in silent movie houses as well as in ballrooms in Havana throughout his teen years. Lecuona studied at the National Conservatory in Havana, graduating in 1913 with a gold medal in performance. His educational concentra-



tion was on teaching both singing and piano. He immediately began touring throughout Europe and the Americas with a repertoire including Mozart and Bach, often playing duets with his sister Ernestina on these tours.

The year 1917 was an important one in Lecuona's career. He made his debut in New York with his first piano recital and also began his recording career. During this time his tours continued to take him outside Cuba. He was performing primarily in the Americas and in Spain. He also performed regularly on radio broadcasts.

Continued Performing, Became Prolific Composer

As a composer, Lecuona was tremendous. He created and published hundreds of songs, although the exact number varies widely. One source credits him with composing more than 400 pieces, while another says he has produced some 1000 compositions. Lecuona studied composition under Maurice Ravel while in Paris and worked in a variety of musical forms. He remains best known for his songs, typically referred to as lighter fare by historians and critics.

Lecuona chose not to work at the piano while composing, preferring a card table. Typically, he would work in creative bursts that would produce astonishing results. He reportedly once wrote four songs that would become hits: "Blue Night," "Siboney," "Say Si Si," and "Dame tus dos rosas/Two Hearts That Pass in the Night," in a single night: January 6, 1929. The following year "Andalucia" and "Malagueña" were on the charts.

"Malagueña" is inarguably the best-known of his popular songs. It is considered his first major composition. This stirring piano instrumental has enjoyed enduring popularity as a recorded tune and in performance. Lecuona had debuted the composition at the Roxy Theatre in New York in 1927. Other notable popular tunes composed by Lecuona included "Always in My Heart," "Jungle Drums," "Dust on the Moon," "Aquella tarde," "Canto Carabali," "Como arrullo de palmas," and "Dame tus dos rosas." Some of his compositions were reworked. "Andalucia," for example, was given English lyrics and re-released in 1940 as "The Breeze and I." His "Dame tus dos Rosas" became "Two Hearts that Pass in the Night," which was a hit for big band leader, Guy Lombardo.

Becomes Noted Triple Threat

Lecuona was also in demand as a conductor throughout the 1930s and 1940s. His Cuban Boys, first known as the Palau Brothers Cuban Orchestra, was a popular dance band, which, according to *Americas* "Helped set the stage for the advent of Latin jazz and salsa." The group appeared in the film *Cuban Love Song* before being disbanded in the mid-1930s. Lecuona then became leader of the Orquesta de la Habana beginning in the late 1930s. He also conducted the Havana Casino Orchestra and continued to tour as a performer. During a particular European tour, he chose to perform his own works along with lighter compositions by various late nineteenth and early twentieth century Cuban composers.

Film scores were another popular medium for Lecuona. He was musical director of the MGM film *Under Cuban Skies* (1930). This led to work in other films including *Carnival in Costa Rica* (1947). He created a total of 11 film scores for major American studios including Warner Brothers and MGM. He also wrote scores for Mexican, Argentine, and Cuban films. Lecuona was nominated for an Academy Award in 1942 for the tune "Always in My Heart."

Lecuona appeared at New York's famed Carnegie Hall in October 1943. This was the premier for his orchestral work "Rapsodia Negra" (Black Rhapsody). This piece used Afro-Cuban instruments, atypical in so-called serious orchestral works and Cuban musicians were featured in the performance. Lecuona not only composed the piece, he also conducted and played piano for the concert that night.

"In the triple role of batonist-composer-pianist, Mr. Lecuona ranged over wide tracts of Latin-American rhythms and motifs, woven into compact lyric and symphonic form. As featured premier, Black Rhapsody proved Lecuona's grasp of native idiom and his flair for heaving rhythmic sequences," as quoted in the *Dictionary of Hispanic Biography*.

Popularity Obscures Talents

It was this continuing popularity that seemingly obscured Lecuona's merits as a serious composer of classical music, particularly later in his career. Lecuona was formally trained in composition and his body of work does in fact show remarkable breadth. He created, for example, 11

operettas and some 37 concert pieces in addition to the compositions for solo piano and the popular tunes.

As Thomas Tirino, a concert pianist who has made several recordings of Lecuona's music, observed in an interview with *Americas* this popularity "may have contributed to the lack of scholarly attention that his considerable achievements do merit," said Tirino. "His music does have a popular appeal, because of the beautiful melodies and shortness of the pieces, but the works themselves are very challenging, if you perform them in the way Lecuona intended. I believe the danger has been to stress the popular element to his music, and with his serious compositions, not to fully realize what they are and the genius behind them."

Lecuona has often been described as "the George Gershwin of Cuba," because he both composed and performed pieces bridging classical and popular music. But this "isn't quite accurate," according to *The Boston Globe's* Richard Dyer. "although his music, like Gershwin's does cut across the divisions between concert and popular music . . . Lecuona was essentially a miniaturist, and there is an element of charm and novelty in many of the pieces." Gershwin and Lecuona, who had the same publisher, met in the 1940s and were reportedly life-long friends.

As for his abilities as a performer, Dyer observed that he was capable of creating great music, but his piano performances ultimately ranged from excellent to quite bad. "Lecuona's best music is colorful and tuneful, sultry and firey by turns; he shows considerable ingenuity in imitating idiomatic guitar effects on the piano," wrote Dyer. "There is nevertheless a wide gap between Lecuona's best and his worst—bits of Rachmaninoff keep coming into view, along with keyboard figurations that sound like Liberace or the even efforts of cocktail pianists everywhere."

Interests Extended Beyond Music

Lecuona was described as "a heavy-set, melancholic figure with famously dark eyes." He was "a popular host who invited friends to play music in his home in Jackson Heights, Queens, though he would escape on solitary walks when the company got to be too much," according to the *Dictionary of Hispanic Biography*. "Besides liking to play the piano, and collecting wood and stone sculpture of the Aztecs, Mayas, the ancient Peruvian Incas, his greatest delight is brewing strong, black Cuban coffee."

Other hobbies reportedly enjoyed by Lecuona included raising small animals and exotic birds (particularly while he was living in rural Cuba), reading mysteries (Agatha Christie was said to have been a favorite writer), and playing poker. He was a baseball fan as well as an inveterate collector who treasured antiques, cigarette lighters, and music boxes.

Lecuona lived in New York and Havana, not unexpected given his touring schedule. He also reportedly had homes in Tampa and Tallahassee, Florida. Cuban President Fulgencio Batista named him cultural attache to the Cuban Embassy in the United States in 1943. With Fidel Castro's coup in 1959, Lecuona left Cuba. He reportedly took a vow in 1960 to never play piano again until Cuba was a free nation. He chose to live abroad, splitting his time between

the United States, Spain, and the Canary Islands. Lecuona was in Santa Cruz de Tenerife in the Canary Islands recuperating from a lung problem when he died of a heart attack on November 29, 1963. He is interred in Hawthorn, New York.

Left Significant Body of Work

As Carl Bauman observed in *American Record Guide* in 1997, "Lecuona, as perhaps Cuba's outstanding composer, certainly deserves to be better known." He created more than 1000 compositions, among them 176 pieces for piano and 37 orchestral pieces during his career. In a later review of another Lecuona recording in that same publication, John Boyer describes his music as "Latin music distilled for the middle-classes in the same way that Brahms and Liszt distilled Hungarian music for the consumption of 19th Century Germans."

Influenced Several Generations of Musicians Worldwide

Lecuona's music has lasted, influencing generations of musicians in various genres all over the world. "When I was a little boy growing up in Australia, one of the most popular bands on the Australian airwaves was Ernesto Lecuona and his Cuban Boys," Don Burrows, the Australian jazz musician said in a 2001 interview with *The Age*. "In those days, Cuba used to export music to all over the world and Ernesto Lecuona was as important to me in those days as Duke Ellington. So by the time I was 10, I knew every song that Ernesto Lecuona had ever written. And these boys in the band just couldn't believe that someone over the other side of the world knew as much Ernesto Lecuona as they did."

Michel Camilo, the Dominican jazz pianist, told the All About Jazz website, "The first composition I remember enjoying as a child was 'La Comparsa' by Cuban renown pianist Ernesto Lecuona, performed by my favorite uncle at the piano. He played the tune in his debut at Carnegie Hall."

"He was able to translate the Afro-Cuban rhythms and put them in tails," Camilo told *Americas*. "Technically, he was very advanced, in the tradition of Ignacio Cervantes, another Cuban pianist and composer who came before him. But Lecuona's left hand is a direct link to someone like Chopin, with the ability to translate the African syncopations."

Lecuona's music was frequently recorded by a wide range of artists during his lifetime and continues to be recorded by artists well after his passing. Among those who have recorded Lecuona songs include Desi Arnaz, Guy Lombardo, Paquito D'Rivera, Katia Labeque, Los Super Seven, and numerous others.

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Led Zeppelin

Led Zeppelin has been called the grandfathers of the "Heavy Metal" genre. At their height in the early to mid 1970s, they frequently outsold the Rolling Stones in concert tickets. And by 1973, they had sold more albums than any other band worldwide. Their anthemic song, "Stairway to Heaven," is the most-played song in the history of radio.

Led Zeppelin was formed out of the ashes of the 1960s supergroup The Yardbirds, once featuring renowned guitarists Eric Clapton and Jeff Beck, and later, a young studio session guitarist, Jimmy Page. (Page, it is estimated, played on 50 to 90 percent of the popular rock records made in England from 1963 to 1965.) In 1965, he joined the Yardbirds, having turned down an offer to replace Eric Clapton just a year earlier. With the Yardbirds, Page and fellow guitarist Jeff Beck pioneered the two-guitar style of rock. Beck left only a year later, however, to pursue a solo career. The band continued for another year and a half, but split by 1968.

Page decided to form The New Yardbirds and sought new musicians. First, he recruited John Paul Jones, a fellow session player, to play bass and keyboards. Then, following a tip, he went to listen to a young blues singer, Robert Plant in Birmingham. Plant suggested drummer John Bonham who had played with him in the Band of Joy. The Who's drummer, Keith Moon, had said something about the new incarnation going down like a lead balloon. Thus, the name Led Zeppelin was coined.

Led Zeppelin's first British show was on October 5, 1968, at Surrey University. An unexpected American tour followed that winter, when the Jeff Beck Group cancelled their spot on a tour with Vanilla Fudge. The band's ambitious manager, Peter Grant, took the opportunity, con-

vinced all involved, and Led Zeppelin left for Los Angeles on Christmas Eve 1968.

Led Zeppelin signed with Atlantic Records and released its self-titled first album in February 1969. The band's sound had diverse influences, including the Delta blues and performers like Robert Johnson, Howlin' Wolf, Buddy Guy, The Incredible String Band, and Elvis Presley. Between Plant's incredible vocal range, and Page's utilization of the new technology of the time—including fuzzboxes, boosters, split pickups on his guitars, and super-amplifiers for the maximum distortion—the band roared into the underground rock consciousness.

Led Zeppelin's best-known song, "Stairway to Heaven," first performed at a 1971 concert in Belfast, was from their fourth album—untitled, save for four strange, runic symbols. Led Zeppelin's fourth album was recorded at Headley Grange, a converted poorhouse in Hampshire, England. Page and Jones wrote the music for "Stairway to Heaven" first, and Plant wrote most of the lyrics in one sitting. Plant later recalled to journalist Cameron Crowe in *Led Zeppelin: The Complete Studio Recordings*, "It was done very quickly. It took a little working out, but it was a fluid, unnaturally easy track. It was almost as if—uh oh—it just had to be gotten out at the time. There was something pushing it saying, 'You guys are okay, but if you want to do something timeless, here's a wedding song for you.'"

The band followed up with *Houses of the Holy* in 1973. Some of the concerts on that tour were filmed for posterity and later released in the film, *The Song Remains the Same*. Following this album, Led Zeppelin started its own label, Swan Song. Signings to the label included Dave Edmunds, Bad Company, the Pretty Things, and Maggie Bell.

In the early years, the band did not have a publicist, did not release singles, and avoided the press. While the idea had been to keep the band mysterious, the band became notorious instead when all their press had to do with riots over concert tickets and the band members and their entourage trashing hotel rooms. Nevertheless, album and concert sales climbed continuously. In the beginning, they made around \$200 a night playing small clubs, but at their height were making more than \$500,000 a night. After their fourth album, the band owned its own plane, "The Starship."

Crowe, in the liner notes to *The Complete Studio Recordings*, summed it up: "The Zeppelin attitude had something to do with Peter Grant, their brilliant and imposing manager. A little bit to do with the wicked humor of Richard Cole, their road manager. Something to do with John Bonham thundering down the aisle of the Starship, performing Monty Python routines. With John Paul Jones, lost in dry ice, playing "No Quarter." It had a lot to do with Page and Plant, side-by-side, sharing a single spotlight, ripping through "Over the Hills and Far Away."

In 1974, the band returned to Headley Grange and recorded a double-album, *Physical Graffiti*. The standout song on the album was the hypnotic "Kashmir," a song the band members claim as their favorite. (Rapper Puff Daddy teamed with Page and Plant as well as Tom Morrello of Rage Against the Machine to create a reworking of "Kashmir"