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illeagues as a brilliant experimentalist, a dedicated scienit, and a kind and generous man.

urther Reading

aserud, Finn, Redirecting Science: Niels Bohr, Philanthropy and the Rise of Nuclear Physics, Cambridge University Press, 1990.

iographical Memoirs of the Royal Society, Volume 11, Royal Society (London), 1965, pp. 53–74.

orn, Max, My Life: Recollections of a Nobel Laureate, Scribner's, 1975.

Iline, Barbara Lovett, Men Who Made a New Physics, University of Chicago Press, 1987, p. 108.

evitan, Tina, The Laureates: Jewish Winners of the Nobel Prize, Twayne, 1960, p. 74.

Segre, Emilo, From X-rays to Quarks, W. H. Freeman and Co.,

1980, p. 137.
Weber, Robert L., Pioneers of Science: Nobel Prize Winners in Physics, Institute of Physics, 1980, p. 75.

Bulletin of the Atomic Scientists, October, 1964, pp. 16–20.
Correspondence between Franck and Bohr is available on microfilm as part of the Bohr General Correspondence in the Niels Bohr Library of American Physics in New York.

The James Franck Papers, Joseph Regenstein Library, University

of Chicago.

Kuhn, Thomas S., six sessions of interviews with Franck, July, 9—
14, 1962, housed at the Archive for the History of Quantum Physics, microfilm 35, section 2 (available at the American Philosophical Society, Philadelphia, and the Niels Bohr Library of the American Institute of Physics, New York).

and 1320 can be detected in many works. None of Franco's own compositions can be identified. Some motets are briefly quoted or cited in treatises; only one motet, in a German manuscript of the 13th century, has been tentatively ascribed to him.

Franco's treatise presents a new concept of musical notation, on which several other theorists were working at the time, about 1240-1270, but Franco gives the clearest and most logical exposition, and thus he had the widest and longest-lasting influence among all the authors of his period. He was the first to teach distinct note symbols for several clearly related note values, namely, the so-called *longa*, brevis, and semibrevis, the last of which developed into the modern whole note. Only with the help of this notation did it become possible to write musical lines of much rhythmic variety.

In addition, Franco's teachings of consonances and dissonances and their uses became standard for a long time thereafter, and his approach to composition and analysis of the musical styles created by Léonin and Pérotin and their successors was adopted by the following generations. His importance was such that music historians at one time spoke of an "epoch of Franco."

Further Reading

Perhaps the best accounts of Franco's teachings are in Gustave Reese, Music in the Middle Ages (1940), and in Homer Ulrich and Paul A. Pisk, A History of Music and Musical Style (1963), although the dates given in the latter work must be revised. □

Franco of Cologne

Franco of Cologne (active ca. 1250-1260), or Franco of Paris, was the outstanding music theorist of his century.

hirteenth-century Paris was a cultural and political center that attracted numerous foreign artists and scholars. It was there that for longer or shorter periods of time men from many countries taught during the midcentury at the great new university: the German St. Albertus Magnus, the teacher of St. Thomas Aquinas and an outstanding philosopher, who in 1248 retired to Cologne; St. Thomas himself and his Italian compatriot St. Bonaventura; the English humanist John of Garland; and others. One of these scholars was Franco of Cologne, who received the honorary title of papal chaplain and became the preceptor, that is, head, of the Cologne branch house of the Order of St. John, probably in the early 1260s. These positions indicate that he was of noble birth, but no more is known of him.

Franco's fame derives from his treatise Ars cantus mensurabilis (The Art of Measurable Music), written about 1260. This treatise is preserved in seven manuscripts dating from the 13th to the 15th century and written in France, England, Sweden, and Italy. Numerous quotations from it and references to it appear in the literature of several countries, and its great influence on composition between 1250

Francisco Franco Bahamonde

The Spanish general and dictator Francisco Franco (1892-1975) played a major role in the Spanish Civil War and became head of state of Spain in 1939.

orn at El Ferrol, a town in the northeastern Spanish province of Galicia, on December 4, 1892, Francisco Franco was the second of five children born to Maria del Pilar Bahamonde y Pardo de Andrade and Don Nicolas Franco, who had continued the Franco family tradition by serving in the Naval Administrative Corp. The young Franco was rather active; he swam, went hunting, and played football. At 12, he was admitted to the Naval Preparatory Academy whose graduates were destined for the Spanish navy. However, international events conspired to cut short his anticipated naval career. In 1898, much of the navy had been sunk by the United States in the Spanish-American War. Spain was slow to rebuild, therefore many ports which had relied on naval contracts were plunged into an economic recession. El Ferrol was hit hard, and entrance examinations for the navy were cancelled, but not before Franco passed for entrance to the Toledo Infrantry Academy in 1907. Franco inherited the nicknames "Franquito" or "Frankie Boy," since he would not participate in the same activitie malicio middle second 1912 sa become age 22, army. Il charge, ferred t romanc plans fi 1923. Frank of 1926.

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Mi lands w ward for conserv gion in 1934). comma activities as his fellow students. He became the object of malicious bullying and initiations, and graduated in the middle of his class in 1910. Until 1912, Franco served as a second lieutenant. He was first posted to El Ferrol but in 1912 saw service in Spanish Morocco, where Spain had become involved in a stubborn colonial war. By 1915, at age 22, he had become the youngest captain in the Spanish army. In 1916, he was severely wounded while leading a charge. He was decorated, promoted to major and transferred to Oviedo, Spain. During the next three years, he romanced Carmen Polo y Martinez Valdes, and delayed his plans for the Spanish Foreign Legion for marriage until 1923. Franco became commander in 1922 and rose to the rank of brigadier general (at the age of 33) by war's end in 1926.

During the next few years, Franco commanded the prestigious General Military Academy in Saragossa. In 1928 a daughter, Carmen, his only child, was born. He maintained friendships with the dictator, Miguel Primo de Rivera, and King Alfonso XIII, but when both were overthrown and the Second Republic began a radical reconstruction of Spanish society, Franco surprisingly remained neutral and avoided military conspiracies.

Military governorships in Corunna and the Balearic Islands were followed by promotion to major general in reward for his neutrality, but with the advent of a more conservative Cabinet Franco commanded the Foreign Legion in the suppression of the Asturias revolt (October 1934). Now identified with the right, in 1935 he was made commander in chief of the army.



The Spanish Civil War

In February 1936 the leftist government of the Spanish republic exiled Franco to an obscure command in the Canary Islands. The following July he joined other right-wing officers in a revolt against the republic which is when the Spanish Civil War began. In October they made him commander in chief and head of state of their new Nationalist regime. During the three years of the ensuing civil war against the republic, Franco proved an unimaginative but careful and competent leader, whose forces advanced slowly but steadily to complete victory on April 1, 1939. On July 18 Franco pronounced in the Nationalists' favor and was flown to Tetuán, Spanish Morocco. Shortly afterward he led the army into Spain. The tide was already turning against the Republicans (or Loyalists), and Franco was able to move steadily northward toward Madrid, becoming, on September 29, generalissimo of the rebel forces and head of

Franco kept Spain out of World War II, but after the Axis defeat he was labeled the "last of the Fascist dictators" and ostracized by the United Nations. Strong connections with the Axis powers and the use of the fascist Falange ("Phalanx") organization as an official party soon identified Franco's Spain as a typical antidemocratic state of the 1930s, but El Caudillo (the leader) himself insisted his regime represented the monarchy and the Church, This attracted a wide coalition linked to Franco, who, with the death of General Sanjurjo in 1936 and General Mola the next year, remained the only Nationalist leader of importance. By the end of the Civil War in March 1939, he ruled a victorious movement which was nevertheless hopelessly divided among Carlists, Requetés, monarchists, Falangists, and the army. Foreign opposition to Franco decreased and in 1953 the signing of a military assistance pact with the United States marked the return of Spain to international society.

The need to avoid immediate Axis involvement in order to begin recovery temporarily maintained the tenuous coalition. Franco's statement, "War was my job; I was sure of that," showed his hesitant attitude toward the prospect of civilian statecraft. Yet he maneuvered with finesse through World War II, beginning with his famous rebuff of Hitler at Hendaye on October 23, 1940.

Except for sending the Blue Division to the Russian front, Franco resisted paying off his obligations to Germany and Italy. Instead he allied with Antonio Salazar, the Portuguese dictator, who counseled neutrality. Negotiations with the United States solidified this stand, and in October 1943 relations with the Axis powers were broken. But Allied antagonism was only somewhat mollified by this belated effort, and on December 13, 1946, the United Nations recommended diplomatic isolation of Spain.

Peacetime Government

Franco met this new threat by dismissing Serrano Suñer from office, removing the overtly fascist content from the Falange, and limiting all factional political activity. In 1946 the newly created United Nations declared that all countries should remove their ambassadors from Madrid. He also

issued a constitution in 1947 which declared Spain to be a monarchy with himself as head of state possessing the power to name his successor. This successor might be either king or regent, thus leaving the future unresolved, a tactic which Franco capitalized on throughout most of the postwar period to prevent any group or individual from making strong claims upon his government. Cabinet ministers were chosen with an eye to national balance, and so slowly Spain moved away from sectarianism.

The economic and diplomatic situation remained difficult. In 1948 France closed its border with Spain, and exile groups, sometimes supported by the U.S.S.R., maintained extensive propaganda campaigns. Flying the banner of anticommunism during the emerging Cold War served him well. In 1950, the United States returned its ambassador and three years later the Americans were allowed four military bases in Spain. President Dwight D, Eisenhower personally greeted Franco in Madrid in 1959. Indeed, considering his Concordat with the pope in 1953, Franco can be said to "have arrived." Franco's regime became somewhat more liberal during the 1950s and 1960s. It depended for support not on the Falange, renamed the National Movement. Almost as if this signaled the end of isolation, tourist trade began picking up until within a few short years Spain had a substantial surplus in international payments. Spain enjoyed rapid economic growth in the 1960s and by the end of the century, its previously agrigcultural economy had been industrialized.

This upsurge permitted Franco to engage in a slow process of modernization that contained a few liberal elements. In May 1958 he issued the principles of the National movement, which contained a new series of fundamental freedoms still dominated, however, by an absolute prohibition on political opposition or criticism of the government. On several later occasions control of the press was temporarily relaxed, and in 1966 the Cortes, up to then a purely appointive body, was made partially elective.

In matters of economic planning, however, Franco demonstrated more consistent liberal intent. He led a belated industrial recovery that raised the standard of living and decreased social unrest. Many of his later Cabinet technocrats, however, were members of Opus Dei, a relatively unknown Catholic laymen's organization reputed to have enormous economic power. Franco's reliance upon this group became obvious in 1969, when the Falange lost its official status.

Franco's health declined during the 1960s. In 1969 he designated Prince Juan Carlos, grandson of Spain's former king, Alfanso XIII, as his official successor. In 1973 Franco relinquished his position as premier but continued to be head of state. Such was the character of Franco's regime that the choice was rumored to have been made by the army, still the most important institution in Spanish society. In July 1974, Franco suffered an attack of thrombophlebitis, an attack that signaled a host of successive afflictions over the following 16 months: partial kidney failure, bronchial pneumonia, coagulated blood in his pharynx, pulmonary edema, bacterial peritonitis, gastric hemorrhage, endotoxic shock and finally, cardiac arrest. At one point, Franco exclaimed,

"My God, what a struggle it is to die." On November 20, 1975, when relatives asked doctors to remove his support systems, the 82-year-old Franco passed away. After Franco's death in Madrid, Juan Carlos became king.

Spain Today

The amazing reality for European integration is that just 20 years after the death of dictator Francisco Franco, Spain has become a mature, stable democracy in which power changes hands via ballot boxes and not bullets. "Electing a conservative government is a way of exorcising the specter of Francoism," says sociologist Victor Perez - Diaz. Gonzalez and his Spanish Socialist Worker's Party deserve most of the credit for moving the country out of the Franco era and into the modern world. Building on the foundations laid by King Juan Carlos and a transitional center-right regime the Socialists consolidated Spanish democracy after coming to power in 1982. Refraining from widespread privatiza tions, they embraced free-market economics, modernized Spain's protected, antiquated industries and gave their onc isolated country a respected international role with NATO membership and entry into the European Community i 1986. At home they upgraded health care, education ar the welfare system, and reformed the old Franco-era arn and got it out of politics.

Further Reading

Information on Franco is in George Hills, Franco: The Man & His Nation (1967), and Luis Bolin, Spain: The Vital Ye (1967). See also Hugh Thomas, The Spanish Civil War (196 Gabriel Jackson, The Spanish Republic and the Civil V 1931-1939 (1965); Rhea M. Smith, Spain: A Modern His. (1965); and Stanley G. Payne, Politics and the Militar Modern Spain (1967). □

Anne Frank

Anne Frank (1929-1945) achieved world fame afte her death from typhus in March 1945 in the Na concentration camp Bergen-Belsen through the pu lication of her diary in which she described the liv of eight Jews in hiding in the city of Amsterda between June 1942 and August 1944.

nne Frank was born on June 12, 1929, in Fran Germany. Her father, Otto, was the son of w parents. He attended the classical gymnasiu served as a lieutenant of the German army in World Following the loss of his parent's fortune during the inflation in Germany, he was able to establish hims businessman in Frankfurt specializing in banking and promotion of name brands. Anne's mother also came well-to-do family. Anne had a close and warm relat with her father and a more distant one with her Anne's sister Margot, a pretty and feminine girl, was 1926 and also died in Bergen-Belsen.