glare, we can lower the overall levels of outdoor lighting, increase safety, and save energy.

Readers interested in learning more about outdoor lighting issues are invited to spend some time at http://www.darksky.org, the Web site of the International Dark-Sky Association.

Reference

1. Nancy Clanton, lighting specialist, presented initial results at the International Dark-Sky Association's annual meeting in Tucson, Arizona, in March 2002. Final results are expected to be published later this summer at http://newbuildings.org/pier/ (click on "Outdoor Lighting").

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Another Look at Science in Spain Under Franco

Physicists working at the Universidad Autónoma de Madrid were unpleasantly surprised by the letter of our colleague, Julio Gonzalo, about the development of physics in Spain under the Franco regime (PHYSICS TODAY, March 2002, page 14). Although we respect each person's right to express his opinion (a highly risky activity in Franco's time!), we deeply disagree with Gonzalo's statements about physics and strongly reject his view of the last years of the dictator's regime.

Science in Spain did begin to develop in the last years of Francisco Franco's life, but it really progressed only after the establishment of a democratic regime. Credit for that development is due to the invaluable work of scientists who fought against a hostile environment and to the relative economic growth in the years preceding Franco's death.

Contrary to Gonzalo's opinion, Franco was ultimately responsible for a devastating war in which hundreds of thousands of people were killed, for a drastic stunting of Spain's economic and scientific growth, and for a 40-year period of political oppression.

In the last five years of Franco's life, several professors were banned from the physics department of our university because of their political opinions. Others, who came to Spain in the late 1960s and early 1970s after physicist Nicolas Cabrera was invited to return from exile, soon had to leave the country because of political pressure and an atmosphere hostile to science. And what is much worse, university students and political prisoners were killed by the police or sentenced to death by the courts up until a few months before Franco's death.

Those activities were by no means signs of a "benign elder statesman," but hallmarks of one of the most notorious fascist dictators of the last century, a fact that should not be forgotten or disguised.

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Julio Gonzalo credits Francisco Franco with "a decisive victory over communism." Franco overthrew Spain's democratically elected government that was supported by republicans and socialists; at that time, there were very few communists in the country. His victory in the civil war was achieved with the crucial military help of Nazi Germany (remember Guernica?) and Fascist Italy, and cost 600 000 lives. Of Franco's opponents, 50 000 were executed after the war and 400 000 were exiled. But Gonzalo was right—although not in the way that he meant it—when he wrote that Franco's victory was "decisive for his country and for Western Europe." The evident reluctance of European democracies, primarily France and the United Kingdom, to confront that aggression and help Spain's legal government paved the way for Hitler's strategy and the catastrophe of World War II.

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We were very disappointed by the publication of Julio Gonzalo's letter, a mixture of half truths and distorted reality. Gonzalo wrote about communism, but he forgot to mention how Adolf Hitler and Benito Mussolini helped Francisco Franco, and how Spain suffered the dictator for 40 years without help from the "free world." He also mentioned Texaco's president and the Consejo Superior de Investigaciones Científicas (CSIC), but he forgot about the Junta para Ampliación de Estudios e Investigaciones Científicas (Study Extension and Science Research Board), created in 1907. Santiago Ramón y Cajal, the 1906 Nobel laureate in medicine, was its president until his death in 1934. Within this group, the Instituto Nacional de Física y Química, (National Institute of Physics and Chemistry), established with grants from the Rockefeller Foundation, attained international recognition. In fact, the first third of the 20th century is known as the Silver Age of Spanish science.

The Junta para Ampliación de Estudios was dismantled by Franco's new regime in 1939. Gonzalo mentioned several Spanish scientists, but he forgot the names of those who suffered repression or were exiled by the regime and, in many cases, were replaced by incompetent ones whose only scientific value was to be Franco's henchmen. At least one of the people he cited, Julio Palacios, had been sent to interior exile after Spain's civil war. He died in 1970, in fact several years before Gonzalo returned to Spain.

Here are some figures to show how Franco's regime supported science: Spain's spending for R&D was 0.29% of GNP in 1967 and 0.3% in 1975, if we are to believe the figures given by Spain to the Organisation for Economic Co-operation and Development. We are sure that if science in Spain during Franco's regime had been carried out in the same way as it was in the rest of the world at the time, PHYSICS TODAY would have known about it, and would never have published such a letter.

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Historical Note on the 'Flying Tigers'

My father is an Army Air Corps veteran, so I was very happy to see the terrific article, "A Physicist with the Air Force in World War II," by Alex E. S. Green, in the August 2001 issue of PHYSICS TODAY (page 40). During my perusal, I noticed an unintentionally misleading statement concerning the Flying Tigers. The article states that, in March 1945, Green's plane landed "at a field in Xian. This field was actually used by the Flying Tigers, American