On the other hand, the book carefully reviews Müller's publications and notes, presents the details of the development of his various hypotheses regarding species as varied as ants and bromeliads, and analyzes his debates with contemporary naturalists, particularly those he corresponded with in Europe. It is certainly a treasure trove of information for anyone interested in the development of the theory of natural selection, which Müller put to the test in various experiments. Müller's contributions of new observations, evidence, and theories are carefully traced and examined.

Those who might expect to learn much about Brazilian science or history through this book will be disappointed. Brazil is a rather faint background for Müller's scientific exploits. We are never given a clear outline of Brazil's history or political situation. Facts of this kind appear as external circumstances that intrude upon Müller's scientific pursuits, partly due to Müller's own stance. Müller perceived the Prussian state as authoritarian, imposing religious conformity and undermining intellectual freedom—reasons that led him to immigrate to a German colony established by Hermann Blumenau in Brazil. He was giving up the "pleasures of civilization" for a simple life close to the primeval forest (p. 38). Although Müller held a teaching position in a high school in the provincial capital of Desterro and later in Blumenau and was also appointed provincial naturalist—a post that basically allowed him to study local biological species as he wished—Müller's focus was always on sending his observations back to Europe and keeping up with European science (cutting-edge science, in other words). West inquires what influence Müller had in promoting Darwinism in Brazil and concludes that he had very little effect in his lifetime. Müller eventually became associated with the National Museum in Rio de Janeiro as a traveling naturalist, with vaguely defined duties, which at certain points included producing reports on local fauna and flora and publishing in the museum's journal, *Archivos do Museu Nacional*. The reports were often lost, and the *Archivos* had trouble maintaining its publication schedule after 1879 (West does not clarify why, but political events played a role). In a concluding section of the book, West reviews Brazilian statements about Müller and concludes that, despite Müller's significant scientific work, none of his publications had any impact in Brazil. This assessment is in part due to West's rather restrictive definition of Darwinism (no Brazilian mentioned makes the cut), but also to Müller's own distant and somewhat disdainful attitude toward his longtime adopted home. Despite its shortcomings, West's book will doubtless be an important source for those interested in the history of modern biology.

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Miriam Focaccia. *Uno Scienziato Galantuomo a Via Panisperna: Pietro Blaserna e la nascita dell'Istituto fisico di Roma*. (Biblioteca di Nuncius, 77.) 202 pp., illus., bibl., indexes. Florence: Olschki Editore, 2016. €34 (paper).

In the early 1930s in the laboratory of the Institute of Physics in via Panisperna in Rome, Enrico Fermi and his group performed several crucial experiments using very simple equipment, and in the fall of 1934 they discovered the miraculous effects of the filtration of neutrons by paraffin or simply by plain water. Using slowed neutron beams, the group created a large quantity of new artificial radioisotopes, finally achieving the first nuclear fission, albeit without fully understanding it. It was the time of the "goldfish pond" in the garden of the institute (used by Fermi when he established the importance of water, and other hydrogen-rich substances, in slowing down neutrons), a heroic, pioneering period before Big Science.

Such memorable discoveries were achieved owing to the influence and support of the director of the Physics Institute, Orso Maria Corbino (1876–1937), a physicist, senator, and the former minister of public education and then of the national economy. However, behind him, the charismatic figure of Pietro Blaserna (1836–1918) stands out.

In *Uno Scienziato Galantuomo a Via Panisperna*, Miriam Focaccia vividly portrays Blaserna, who was born in Friuli, which at that time was still part of the Austrian Empire. She refers extensively to archival material and contemporary publications, and the picture that emerges is of a dynamic and tireless scientist active on many fronts: as the Regent of the Rome University La Sapienza, as the founder and director of the Physics Institute, as a professor of experimental physics, and as a senator of the Kingdom of Italy.

By the mid-1850s, Blaserna, still a subject of the Habsburg Empire, had completed his training at the University of Vienna and later in Paris. He was appointed professor at the University of Palermo in 1863 and, finally, at La Sapienza in Rome in 1872. As an enlightened and progressive scientist sensitive to the needs of scientific research, he organized and supported research projects that would enable the young Italian State to regain its lost eminence in physics. Referring to the German and French models, he identified several objectives to which he devoted his life, to the detriment of his own scientific production. He established the Scuola Pratica di Fisica for newly enrolled university students, with the goal of encouraging them to personally carry out the experiments in their first two years. He supported the planning and construction of the Physics Institute in via Panisperna, established in 1881, and he promoted the development of advanced research projects by strengthening institutional structures and making the recruitment of promising young researchers a priority. As a result of Blaserna's influence on the academic community, A. Sella, V. Volterra, O. M. Corbino, and other distinguished scientists were appointed to positions at La Sapienza, and G. Marconi benefited from his full institutional support on many occasions.

Thanks to extensive use of the archival material in the Accademia dei Lincei, as well as in the Accademia delle Scienze detta dei XL, in the Historical Archive of the Senate, in the Museum of the Physics Department at La Sapienza, and other sources, Focaccia has been able to reconstruct the phases of Blaserna's life and career. In the central chapters—"L'Istituto di Fisica di Roma: Un ideale realizzato," "Segretario, Vicepresidente, Presidente, Direttore," and "Senatore"—the reader is guided through the most complex and significant events in Blaserna's career. As a scientist holding several institutional positions, he worked ceaselessly, confronting opponents when necessary, in order to pursue an effective policy in science and technology, which was critically important in the unified Italy of the late nineteenth and early twentieth centuries. He was the founder of the Italian Geodynamics Services (for reporting seismic events), president of the Council of Metereology and Geodynamics, a member and then secretary of the Accademia dei Lincei, a member and founder of the Society of Italian Spectroscopists, director of the Central Bureau of the International Corista (i.e., tuning fork) established at the Physics Institute because of Blaserna's passionate interest in music and his participation in the International Conference held in Vienna in 1887, and finally the secretary of the Bureau International des Poids et Mesures. A gentleman scientist, he promoted weekly lectures at the institute, popularized science at the meetings of the Circolo Fisico as well as in public lectures, supported Volterra's proposal aimed to refound the Società Italiana per il Progresso delle Scienze (SIPS), and sustained the project of the foundation of the Società Italiana di Fisica (SIF).

Focaccia shows us the image of a multifaceted intellectual. A curious scientist attentive to every new scientific development, Blaserna was honest and amiable. He was a great admirer of Eleonora Duse and a close friend of the Queen Mother, who gave him two large Saint Bernards that lived in the garden of the institute, where he lived on the second floor.

Blaserna had a wide variety of interests: from geophysics to electrotechnology, from acoustics to musical physics, from balloons to polar exploration. Those interests are corroborated by a selection of his lectures included at the end of the volume as well as photographs and an extensive and well-documented bibliography of primary and secondary sources.

Historians of science as well as historians of nineteenth- and twentieth-century Italy will find this book very useful. It demonstrates that an effective policy on science is essential to stimulate the development of a modern nation.

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Hannah Gay; William P. Griffith. *The Chemistry Department at Imperial College London: A History, 1845–2000*. x + 569 pp., illus., tables, bibl., index. London: World Scientific, 2017. £56 (cloth).

The history of the chemistry department at Imperial College (IC) London is the subject of this new book by two IC authors, Hannah Gay and William P. Griffith. There is a great deal to tell, and they announce that it is intended to be exhaustive. The intended audience is definitely not the general public, nor is it the general scientific or historical community. It is not even clear that the general chemistry community is envisioned as the dominant readership. Perhaps currently living alumni and staff at IC will appreciate the extensive gossip contained in *The Chemistry Department at Imperial College London*. I will find it helpful in my own work as a specialist chemical historian.

From its founding as the Royal College of Chemistry (RCC) in 1845 to the present, the chemistry department has been devoted to the actual practice of chemistry and to its applications in "agriculture, arts, manufactures and medicine" (p. 12). Early influences included Justus Liebig (1803–1873), Baron Lyon Playfair (1818–1898), Michael Faraday (1791–1867), John Lloyd Bullock (d. 1905), and Dr. John Gardner (FCS). Prince Albert was elected president, and a wide array of London chemists and physicians were on the council. Money was raised and a building was erected at 299 Oxford Street, London. The college was able to appoint August Wilhelm Hofmann (1818–1892) as the first professor. He was a student of Liebig at Giessen and eventually returned to Germany, where he had a brilliant career. But during the twenty years he was at the Royal College of Chemistry, Hofmann established a tradition of both practical chemistry and pure research.

In 1865, Hofmann was lured back to Germany and a professorship in Berlin, and the RCC appointed Sir Edward Frankland, KCB, FRS (1825–1899), as his successor. Like Hofmann, Frankland was associated with many of the greatest chemists of the nineteenth century: Playfair, Tyndall, Kolbe, Wohler, and Bunsen. The RCC has maintained its position as a world-renowned center of chemistry. Among the notable nineteenth-century figures who attended the RCC were Sir William Crookes, FRS (1832–1919), Sir William Henry Perkin, FRS (1838–1907), William Augustus Tilden, FRS (1842–1926), and Henry Armstrong, FRS (1848–1937).

In 1873, the Royal College of Chemistry moved to South Kensington, along with the Royal School of Mines. This move allowed expansion and collaboration with other specialized institutions. When Thomas Edward Thorpe, FRS (1845–1925), became the head of the department in 1885, he was able to oversee the formation of the Royal College of Science (RCS) in 1890. He was cited for "quickening the spirit of a band of devoted students and staff" (p. 82). He also encouraged the best students to sit for the examination at the University of London and obtain the B.Sc. degree. He was succeeded by William Tilden in 1894. Under Tilden, a new chemistry building was constructed, opening in 1906. Of even more importance, in 1907 the Royal College of Science, the Royal School of Mines, and the City and Guides Central Technical College (C&GCTC) joined to form the Imperial College of Science and Technology. One of the benefits of this merger was the addition to the faculty of Henry Armstrong from the C&GCTC. Sir Robert