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Book Review

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Book review

Preservar los Puentes: Historia de la Conservación Patrimonial de la Ingeniería Civil en España (siglo XVI–1936)

D. Crespo Delgado. Fundación Juanelo Turriano, Madrid, Spain, 2017, 2 vols.; Vol. 1: *Del Renacimiento al Romanticismo*, ISBN 978-84-945708-7-2, €19 (paperback), 245 pp.; Vol. 2: *De las Comisiones de Monumentos a la Segunda República*, 978-84-945708-8-9, €19 (paperback), 380 pp.

Fundación Juanelo Turriano, a non-profit private institution headquartered in Madrid and created primarily to 'further the study of the history of the various branches of science and technology, with special emphasis on engineering', pursues a number of lines of research and publishes a series entitled *Juanelo Turriano Collection on the History of Engineering*. Since its launch in 2015, the series has brought out seven books on very different civil engineering-related subjects in periods from ancient Rome to the twentieth century. All are the outcome of rigorous, unpublished research by specialists in the areas addressed.

The most recent edition, released in late 2017 and presented at San Fernando Fine Arts Academy in 2018, was authored by historian Daniel Crespo Delgado under the title *Preservar los Puentes: Historia de la Conservación Patrimonial de la Ingeniería Civil en España (siglo XVI–1936)* (conserving bridges: history of the conservation of Spain's civil engineering heritage (sixteenth century–1936)). That long title befits the in-depth research involved. Delgado reviews a number of the most prominent examples of Spanish engineering, not only from a historic perspective of the bridges and aqueducts per se, but of the regard in which they were held across their lifetimes from the standpoint of cultural heritage – that is, their conservation, alteration or destruction.

The first volume of the two comprising the book is entitled *Del Renacimiento al Romanticismo* (from the Renaissance to Romanticism), while the second, *De las Comisiones de Monumentos a la Segunda República* (from the Monument Commissions to the Second Republic), deals essentially with developments between the second half of the nineteenth century and the first third of the twentieth century. Both, however, reflect the important lessons learnt and legacy bequeathed by Rome, inasmuch as both are pervaded by the masterworks of Roman Hispanic engineering. Alcántara Bridge over the River Tagus (Cáceres, Extremadura), for instance, is among the most outstanding Roman works in Europe, while the aqueduct at Segovia (Castile and Leon), one of the world's best conserved Roman aqueducts, carried water to the city's Alcázar or castle from the Fuenfría spring up until the nineteenth century.

Both structures and many others are analysed in detail, taking into account their history after the 'Roman circumstance' to which they owe their existence. They were conserved for generations not only to ensure their use, naturally, but also to perpetuate their form. That idea is the touchstone of the study conducted by the young scholar Daniel Crespo Delgado, professor at the Complutense University of Madrid, Fundación Juanelo Turriano researcher and author of many papers on the history of Spanish engineering published by the latter institution.

Delgado has gathered formidable amounts of information, including documents from a host of national and local archives, as well as original drawings and old photographs of each and every one of the bridges studied. These illustrations enhance his narrative about the fate of these structures: a medieval bridge at Zamora over the River Duero, (sorrowfully degraded in a 1905 reform); a Renaissance bridge over the River Tagus at Almaraz, destroyed during the War of Independence and rebuilt in 1845; and the baroque Toledo Bridge spanning the wide riverbed that carries Madrid's narrow River Manzanares, to name only a few. Theirs is a story of catastrophe, war, explosion, ruin, partial collapse and more or less benevolent reform.

The government invested vast amounts of money in the restoration of these bridges, a historic challenge in which engineers were confronted with the need to conserve them, first for reasons of use and subsequently in response to demands around their status as heritage assets. Daniel Crespo Delgado focuses in particular on the period beginning in 1844 with the creation of the Monument Commissions and ending on 3 June 1931, when the president of the Provisional Government of the Republic decreed that a long list of splendid bridges were historic-artistic monuments 'forming part of the Nation's Artistic Wealth'. Included under that category were Toledo's Alcántara Bridge and the bridges at Martorell in the province of Barcelona, Cordoba over the River Guadalquivir and Cangas de Onís in the province of Asturias.

Exquisitely printed in an edition that features excellent colour reproductions of original and formerly unpublished drawings and carefully rendered old photographs, this book is exemplary in form as well as content.

Pedro Navascués Palacio