Book review

Covered Bridges and the Birth of American Engineering

J. Christianson and C. H. Marston (eds). HAER, Washington, DC, USA, 2015, ISBN 978-0-578-17106-7, 234 pp.

In this book the editors bring together a series of chapters by various authors on different aspects of covered bridges and timber truss bridges in the USA. The first section is a portfolio of covered bridges, packed with diagrams and pictures from the Historic American Engineering Record (HAER). Chapters 1 and 2 present an overview of the work of the HAER and the Historic Covered Bridges Preservation Program (HCBPP). The information in these chapters is supplemented by an appendix, which contains a list of covered bridges in the USA with some details. This information is aimed at the non-technical reader and the lack of any span data makes this less useful than it could have been to the technical reader.

Chapter 3 charts the short history of this bridge form from Schuylkill Bridge of 1805 to its decline in the 1880s and replacement by iron (although probably steel) in the twentieth century. A short discussion on the architecture of these bridges is presented. Chapter 4 looks at the engineering design of the structure beneath the architectural cladding. It starts simply, but quickly gets into the complexities of these structures. Chapter 5 looks at the development of the truss in the USA. The photographs and diagrams in this and the previous chapter are particularly fascinating. These chapters and others contain endnotes giving references

to other books and papers for the interested reader. Chapter 6 looks at the building of these bridges: it was interesting to discover that at least one bridge was built in a field and hauled (today we would say launched) across the river by a team of oxen. Chapter 7 looks at the preservation and future of the remaining covered bridges, which, thanks to the HAER and HCBPP, seems positive.

This is a densely packed book with lots of general information and photographs. The many historic photographs in the book are its best part. The poignant photograph of the ten-span Susquehanna River Bridge being dismantled in 1925 and a new bridge appearing in the distance is one of the best. Stripped of its cladding but with the roof still on, the Burr-arch timber structure shows its strength and pride to the end.

In the introduction, the editors see that the 'covered bridge in a bucolic setting has become a quintessentially American image, one meant to evoke a pastoral vision of nineteenth century America'. Perhaps, but I have tended to see them architecturally more as a large garden shed, usually without the sophistication of their European contemporaries or the beauty of the Chinese variety. But, as the editors continue, 'underneath the housing... is a more complex story'. Indeed – and it is an interesting story. This is a book to be dipped into. For those designing modern timber structures the book is a must to see what can be done and what has been done by past generations.

David Collings