In 1825 the Commonwealth of Pennsylvania was faced with a dilemma: whether to build a canal or a railroad to compete with New York’s newly completed Erie Canal. The controversy involved the use of conventional stillwater canals to cross the Allegheny Mountains and connect Philadelphia with Pittsburgh, or to use the neophyte technology of railroads. In the new book *Over the Alleghenies: Early Canals and Railroads of Pennsylvania*, veteran canal historian and engineer Robert Kapsch tells the story of the engineering, economic, and political history of this early system of transportation.

After the War of 1812, politicians in East Coast states began to see the need for lines of transportation to connect with the growing Ohio Valley and Great Lakes regions. New York was fortunate in that receding glaciers had left a high shoreline around Lake Ontario, which was perfect for a contour canal from Albany over to Lake Erie. With no mountains to cross, the Erie Canal was built across relatively flat areas of land and required few technological innovations. Pennsylvania was different: the same glaciers had left a topography of twisting ridges, narrow river valleys, and the problematic Susquehanna River. With no easy route through the veil of mountains, the engineers were forced to build riverside canals through the steep valleys. This direct connection to the temperamental rivers made the canals extremely sensitive to floods and droughts. Between the east-west river systems was the Allegheny Ridge—a 35-mile wall of heavily forested mountain that rose 1,200 feet above the headwaters. After looking at canal, tunnel, and turnpike options, the engineers settled on a complicated railroad arrangement. The resulting Allegheny Portage Railroad was a marvel of its time.

Political maneuvering complicated the grand scheme of the Pennsylvania Public Works. To sell the concept of the canal, promoters rationalized financial and technological miscalculations that wildly underestimated the scope of the project. The project was then fast-tracked without a clear plan to vault the mountains. Expensive lateral canal projects were initiated to entice politicians from the fringe counties to support the Mainline. Bonds to finance the project were then shunned as it became apparent that the construction costs far exceeded estimates, and that maintenance costs alone outstripped income from tolls. The heavy debt from the Public Works placed Pennsylvania in a precarious position when the Panic of 1837 arrived.

Despite its many shortcomings and expense, the Public Works succeeded in creating...
Putting together a comprehensive book about the Civil War is challenging, but Neil Kagan aptly edited 49 well-written essays by Smithsonian curators into a cohesive anniversary tribute. What makes this book unique is that each curator selected an artifact that he or she felt spoke to the issues of the conflict and the space around it. Rare military items, such as magnificent presentation swords given to Generals Judson Kilpatrick and Phil Sheridan, share equal space with more utilitarian objects, like postage stamps and illustrated envelope covers. Other topics include artifacts that evoke the pain and reality of slavery and the new domain African American soldiers entered with the birth of the United States Colored Troops. More pieces chronicle the growth of technology and industry, arsenals, music, and even Native Americans issues. Page after page reveals the depth of the Smithsonian collection and the multifaceted knowledge of the curatorial staff.

As a coffee table book, reference book, or as a gift to your favorite Civil War buff, this volume is well worth having. Even the most well-versed Civil War aficionado will want to rally around it.

Michael G. Kraus is curator of collections at Soldiers and Sailors Memorial Hall. He co-authored The Civil War in Pennsylvania: A Photographic History, and contributed to The Civil War in Pennsylvania: The African American Experience.