AH readers may note that there is a heavier emphasis on Continental European horology than we perhaps are used to with English-language publications. English and American examples are scarce, and French clocks seem to predominate, even in the skeleton clock category and with precision regulators by Janvier and Berthoud, not Graham or Frodsham. Voltaire, Napoleon, Rousseau, and Madame de Pompadour all make appearances. Understandably, the authors are French, and this book also was published in a French-language version.

But this is no textbook of dense academic prose. More than half of the glossy pages are images, wonderful high-quality full-page full-color images of clocks, watches, and artworks portraying them. Some are two-page spreads, such as the 1496–1500 *Procession of the Cross* in Saint Mark's Square by Gentile Bellini. As a collector of digital 'Horology in Art' images (1,629 at last count), I recognize most of the paintings. Edgar Degas's *The Bellelli Family*, Diego Velazquez's *Queen Mariana of Austria*, and Jacques-Louis David's *Napoleon in His Study* are among my earliest and favourite acquisitions. Several others were new to me and were happily welcomed into my collection. These include Henri Testelin's *Colbert Presenting the Members of the Royal Academy of Sciences to Louis XIV*, François-André Vincent's *Portrait of Comte de La Forest with his Wife and Daughter*, and twentieth-century art by Robert Rauschenberg, Jasper Johns, Andy Warhol, and Roy Lichtenstein.

I lodge no complaint on the absence of Salvador Dali. His melting and drooping dials are well-known and overexposed, and offer nothing to horology researchers. I can be disappointed, however, that the number of eye-grabbing full-page images is equalled by tiny ones, often smaller than their captions. A watchmaking plate from Diderot's encyclopedia, for example, is reproduced at postage-stamp size. These miniatures may add visual interest to pages of black type, but they can be frustrating for people interested in examining what was depicted.

The authors have deeply mined the French-clock inventory of Swiss dealer Richard Redding Antiques for a substantial number of their clock images including a Claude Mathieu c. 1775 'Pendule A Cercles Tournants' and a c. 1745 'Pendule Au Magot' with signed dial and movement by Roquelon a Paris. Many other high-resolution images, however, display timepieces from important European museum collections including Beyer Zurich, Musée International d'Horlogerie in La Chaux-de-Fonds, and Kunsthistorisches Museum, Vienna. Reproduced artworks also derive from top world museums.

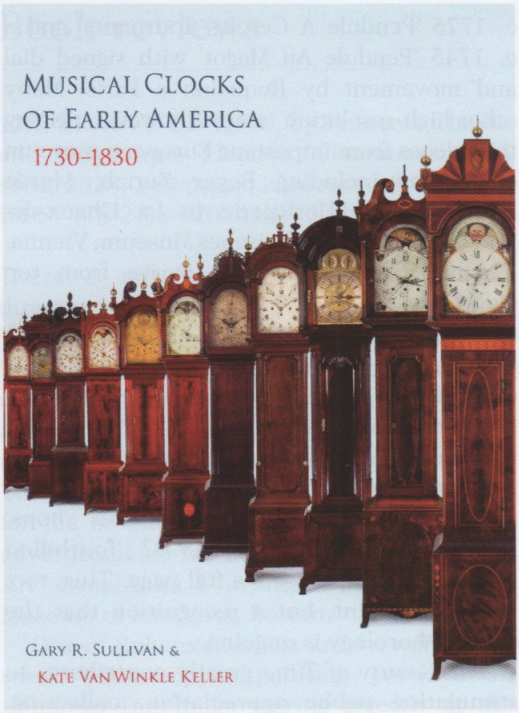
Both the new book and the 2011 predecessor were co-produced by the FHH (Foundation High Horology) which actively promotes contemporary Swiss watchmaking. Concluding chapters feature modern wristwatches, some that today can be seen and purchased at auctions and in shops. Richard Mille's 2015 RM19-02 Tourbillon Fleur, for example, gets a full page. This, too, is no complaint, but a recognition that the story of horology is ongoing.

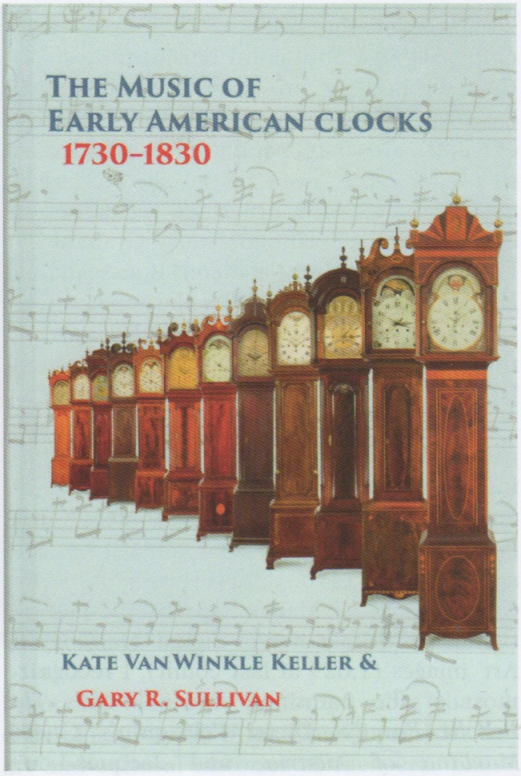
The Beauty of Time greatly contributes to stimulating public appreciation, collecting, scholarship, and enjoyment of horology. Peter Paul Rubens's unnamed gentleman still challenges us to behold his watch and ponder its eternal significance.

Bob Frishman

MUSICAL CLOCKS OF EARLY AMERICA 1730–1830. A CATALOGUE RAISONNÉ by Gary R. Sullivan and Kate Van Winkle Keller
THE MUSIC OF EARLY AMERICAN CLOCKS 1730–1830 by Kate Van Winkle Keller and Gary R. Sullivan
Both published by The Willard House & Clock Museum, 2017.
Hardcover 389 pages, 9.5" x 12.25", $65 and 259 pages, 6.25" x 9.25" ,$25, plus shipping.
www.willardhouse.org or (508) 839-3500.

For five weeks in the fall of 2013, visitors to the Willard House and Clock Museum in rural North Grafton, Massachusetts, had an authentic antique musical clock experience. Thirty-eight musical clocks, about a fourth of all America-related examples known still to exist, were gathered together, mostly restored to working condition, and on visual and audio display. The exhibition was brief because many of the clocks were on loan and soon returning to their private owners before the





winter holidays. I attended the opening-day reception, took home the 48-page exhibition catalogue, and for nearly five years awaited the books promised by the exhibition's local guest curators, Gary R. Sullivan and Kate Van Winkle Keller.

In early June, with a loud thud at my front door, the books finally arrived. The wait was understandable and worthwhile. These are comprehensive and well-designed tomes, produced as permanent references. The thick clock-focused volume, with over 500 photographs, documents all 130 known American clocks from that hundred-year period. The smaller volume, which buyers of the larger volume should not resist, provides the musicology details that are at least half of this story.

Gary Sullivan, a well-known Massachusetts antiques dealer and expert on antique clocks, has more interest in wooden cases than in the machinery inside. His book offers many case details, noting that costly musical movements normally were housed in top-of-the-line woodwork. He avoids highly technical data on each clock's mechanical characteristics, especially since not all the clocks were available for disassembly and close inspection, but he does supply many overall movement photos. Restorers will not find tooth counts, wheel diameters, or lever shapes. In contrast, musicologist Kate Van Winkle Keller's book, based on more than thirty years of her specialized study, is an encyclopedic guide to names, lyrics, musical notations, and histories of all 185 tunes found in these eighteenth-century 'juke boxes'. [Editor's note: for a study of the tunes in Dutch bell-playing clocks of that period, see the article by Marieke Lefeber-Morsman in the previous journal.]

At that time, such clocks (and some exotic automata) were the sole ways to experience music not performed 'live' by instruments or voices, a fact nearly unimaginable given today's ubiquity of recorded sound. Of course, no single clock played 185 tunes. Some performed just one, and most common were those with seven selections, one for each day of the week, with a psalm reserved for Sundays. For the strictest of religious households, only six tunes were installed, as any music on Sundays was forbidden. The range of tune options was broad and could be specified by the purchaser, although least costly were tunes already available on pinning charts for the rotating cylinders.

The clocks were expensive, four or more times the cost of the same model without music, and wealthy buyers wanted a say in the torrent of notes they would hear over and over again. True records of regional social and cultural histories, the tunes ranged from light classical airs and patriotic marches to popular ditties from theatres and taverns. The clocks' performances sometimes are the only way for us now to hear these tunes, or even know of their existence. However, some have persisted to the present day. The melody of *Sicilian Mariners Hymn*, sounding from a circa 1785 tall clock by Caleb Wheaton, is recognizable as the 1960s American civil rights anthem *We Shall Overcome*.

The authors establish the crucial distinctions between these clocks and timekeepers that audibly count the hours or play quarter-hour chimes. Definitions and nomenclature have been cloudy, and many owners believe that their modern grandfather clocks, chiming every fifteen minutes, are 'musical'. Not so; the music must be lengthier compositions. The over-familiar four notes we hear from London's tower at Westminster are very different from *Air by Handel*, *Free Mason's March*, *French King's Minuet*, *Merrily Dance the Quaker*, or *Yankee Doodle* that all required more bells, hammers, and pins.

Tunes such as *Paddy Whack* had familiar scandalous lyrics. Some including *Peas Upon a Trencher*, calling soldiers to breakfast, had military connections. *God Save the King* revealed an owner's loyalist or monarchist sentiments. *A Jig* and *The Milk Maid* encouraged dancing. *Middletown* is an example of hymns for Sunday inspiration. These were not hoary 'folk' tunes, but instead a 'hit parade' of newer popular melodies demonstrating that their owners were fashionable and up to date.

The defined century for both books, 1730–1830, mirrors the time when hand-crafted tall clocks were popular in America. Before, the colonies had neither the wealth nor the artisans. After that, smaller cheaper mass-produced clocks poured from New England factories, leaving tall clocks as undesirable relics of past eras. Later in the nineteenth century, long-case clocks returned to favour, and some costlier versions included tubular chimes or players of metal disks, but these are beyond the scope of the books.

There certainly were many musical clocks available in England during those hundred years, and much earlier. A small number of wealthy American colonists obtained them from British and Dutch makers. Most of the American clockmakers were English émigrés, apprenticed to them, or descendants of them or their students. Each clock entry in the Sullivan book provides biographical material about the maker, and traces the English associations when possible. John Spiller is recorded as working in Somerset prior to arriving in New York. Thomas Harland, hailed by Sullivan as the 'grandfather of musical clockmaking in America', departed England at age 38 and settled in Norwich, Connecticut. Most of the tunes originated in England or from English colonists in the New World. Top of the list of songs on Harland musical clocks was *Beer-Drinking Britons*. Another favorite was *Nancy Dawson*.

However, particularly in Pennsylvania, the makers and music were often of German extraction. Augustine Neisser emigrated from Moravia in 1736 and settled near Philadelphia. In September 1777, he placed a newspaper advertisement complaining that invading British troops stole a 'repeating 30 hour clock, with an alarum, minute hand, and day of the month'. John George Hoff, a native of Westerberg, arrived in Philadelphia in 1765. The book includes a staid portrait of him by Jacob Eichholtz, and notes that four sons followed their father into the clockmaking business. A ten-tune clock by Hoff, or a son, features petite sonnerie on the quarters and grande sonnerie at the hours.

Sullivan and Keller report some of the challenges and disappointments they faced. Name changes, misspellings, and variations were quite common, as were old tunes used for new songs. Clock dials had been repainted, obscuring or changing tune names. Some tunes remained beyond identification. Some movements were too worn or damaged to perform properly. Worse of all, some movements were missing parts or even their entire musical trains. Sad stories were told of owners, tired of the same old songs, requesting alterations or removals, and of repairers who eliminated the musical parts when unable to make them function.

For the 2013 exhibition, lenders were offered professional restoration of their clocks, truly musical instruments, so that most could play as intended. Volunteer clock-repair experts did their best with machines that may not have worked for decades. Happily, not all the clocks are in private homes, and one by Simon Willard remains a highlight of the Willard House. Another, by Daniel Burnap of East Windsor, Connecticut, is in the White House collection.

These books are not the only ones on the subject, although their focus on American clocks is unique. Perhaps most comprehensive is *The Musical Clock: Musical & Automaton Clocks & Watches* by Arthur W.J.G. Ord-Hume, published in the UK by Mayfield Books in 1995. Ord-Hume, a leading authority on mechanical music of all kinds, devoted some attention to American musical clocks but most of his 352 pages focused on the technical aspects of Europe's more complex, costly, and beautiful examples dating back to the fourteenth century. He explained that they originated as French, English and Dutch carillon towers of bells, then later were made for domestic enjoyment.

Most European indoor models played on small organs, or occasionally on strings or metal combs. These could handle faster and more complicated melodies, since with bells, resonating long after they are struck, a quick succession of notes could, as Ord-Hume quipped, sound like an 'accident in a cutlery drawer'. Organ clocks enabled performances of complex classical compositions, sometimes specifically composed for them by Handel, Mozart, and others. American clocks nearly all used bells, played slower simpler tunes, and are termed 'carillon' style for that reason.

In the Sullivan/Van Winkle Keller books, readers can find much useful information with broader appeal. There are older photographs of clocks whose whereabouts no longer are known. Some pages reproduce period clockmaker advertisements, sometimes the only evidence of their musical clock marketing, and these ads illustrated the men's multiple skills and occasional tribulations with collecting money and seeking runaway apprentices. Daniel Burnap's shop records are cited, demonstrating that he employed his own case-makers, contrary to the usual practice of contracting out the woodworking tasks. We learn of an extensive barter system, including trading clocks for gunpowder. We discover the provenance and location of many clocks. We read biographies of important makers, extended by a bibliography of sources on all the listed artisans. We peruse a tune index and listings of imported musical movements.

Gary Sullivan praised the generous financial backing he received for the lengthy project. Donors underwrote the entire printing costs, enabling the Willard House to sell the books at half the actual costs of production. All proceeds now will flow directly and solely to the museum.

The two authors write of the fortuitous coincidence that led to their collaboration. Gary's interest in musical clocks dates back to the early 1980s; Kate's even longer ago to 1973. They had never met, but discovered in 2008 that they then lived just six miles apart. The partnership blossomed and these fine books are the happy result.

Bob Frishman

THE ILLINOIS WATCH AND ITS HAMILTON YEARS by Fredric J. Friedberg. First Edition 2018. Boxed set of five hardbound volumes, titled as below. Schiffer Publishing, Atglen PA (USA). 23x30x17cm, total 1648 pages. Weight 10.4 kg (23 pounds). ISBN 978-0-7643-5371-0. Available through the publisher or through Amazon.com for US$295, or directly from the author at a special price at Illinoiswatches.com.

1. *History of the Illinois Watch Company: Currents and Crosscurrents in the American Watch Industry*
2. *The Illinois Watch*
3. *The Identification Guides (Part 1): Illinois Men's Wristwatches*
4. *The Identification Guides (Part 2): Illinois Ladies' Wristwatches & Hamilton-Illinois Wristwatches*
5. *Collecting Illinois*

The Illinois Watch Company — initially called the Springfield Watch Co. 1870–1877, then for one year Illinois Springfield — was one of