

**A Great Combination – Horology & France***by Mostyn Gale*

Last month I was privileged to be able to attend a horological study tour in France. This tour was put on by the USA Section of the Antiquarian Horological Society (AHS). It was organized by Jim Cipra, Fortunat Mueller-Maeki, administrative activities were organized by Bob Seitz and Dean Armentrout. I decided to go because I thought it would be a unique learning opportunity - one that I did not want to pass up.

I was not disappointed - it was one amazing big learning experience, one that I will never forget. In addition to learning things horological, there were many other benefits as well; it was wonderful to meet the other people on the trip, it was fun to experience the French culture in their people, country, architecture, and some of the most phenomenal food you have ever eaten. It was also very nice to meet our hosts in different places - for the most part they were also people interested in horology and were overjoyed to be able to share their love and passion, and work with others from a different country that had the same passion. The French people were very friendly and our hosts especially went out of their way to show us a good time.

On the horological side (that was the purpose of the trip), it was nothing less than "over the top". The depth, breadth, quality, and importance of all we saw was perhaps the most I will ever see in my life. Even (or especially) the things that I was "not interested in," were of such magnitude and quality that you can't help but be fascinated, for instance, watch keys. I would never have thought that watch keys were something I had much interest in - well, I was blown away by the variety, the different styles, types, etc., and the quality. We listen to a presentation by our host Yves Droz,

who collected these keys. While he was giving his presentation I jotted down no less than 40 different types/characteristics of watch keys. Absolutely staggering! And I am sure there are that many more.

It is hard to say specifically what I learned. I got to see history, see things that most people do not get to see, go places that most people don't get to go - this is not important in itself but it is the importance of the places that makes them significant. Knowing history is important so

that we learn from those that have gone before us. In addition to the writings that may have been left to us, the physical artifacts that remain also teach us about the people that made them, about their times, about their values and their lives. These things hopefully help us

understand ourselves better and learn to live fuller, more meaningful and enjoyable lives. I learned that it is important to leave something behind for future generations. Things that may not seem important now but they become more important as time passes by.

What I am more passionate about now than ever is to be able to help preserve objects (mostly clocks) from the past and to preserve as much as I can glean about their context as well and make it easier for others to see, hear, and learn from that.

If you want a little more detail on my trip, you can read my blog on line at www.saving-time.org.

Bon voyage! ■

*View from the Citadel, Besancon**Continued on page 4**The back of the astronomical clock**Astrolabe, Louvre*

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dave@biswebdesign.com

PRESIDENTS MESSAGE

By Mike Schmidt

The winds of change are blowing on the good ship NAWCC. Current internet technologies are readily changing the presentation of workshops, research and educational materials. The recent successful Webinars and upcoming Webinars are testament to the desire by NAWCC members to access and embrace live online workshops. The three recent Webinars on the 3 weight Vienna Regulator were a great success with large numbers of NAWCC members on line watching the disassembly and reassembly of the 3 weight movement. Stephan Nelson, with the assistance of Lex Rooker, proved the viability of Webinars as a proper addition for NAWCC education. The introduction of this new venue improves with each new presentation.

To avail yourself of these opportunities go to the NAWCC website and click on the "EDUCATION" button and you will find a list of upcoming webinars.

Give them a try. I am positive you will learn something new.

Upcoming Webinar:

Jun 1, 2013 1:00 PM EDT - Meet the NAWCC Bulletin Author Webinar: Gregory Gorton and the Seth Thomas Clock Company's "Grand Office Calendar Clock"

The Webinars, and online Educational Videos will allow people around the world to access and experience what the NAWCC has to offer. The recent growth in international memberships will continue and national memberships will follow with the offering of internet educational horological opportunities.

The Chapter 190 recent 2- day public workshops, "Introduction to Antique Clock Collecting, Repair & Maintenance" was well attended with very good results and positive reviews by the students. There were seventeen students in the two workshops. The good results are that four students became new NAWCC members, two renewed, and ten of these students have continued their education by registering for the May FSW101 4-day workshop, "Introduction to Basic Time & Strike". The instructor for this workshop will be Lex Rooker with an assist by Ray Marsolek. Congratulations to Lex Rooker for superb instruction and to all who contributed to the success of the 2 day public workshops.

The Sunday morning workshops have been very popular and very well attended. The workshop this coming Sunday, starting at 10:30 A.M, will be led by George Antinarelli and Ernie Jenson. The opening subject will be "Electric Self Winding Clocks". Any subject or questions on watches and clocks are always welcomed. The coffee will be on early!

See you at the meeting *Mike Schmidt*



Happy Birthday

May

George Antinarelli, Henri Bonnet, Ron Boogren,
George Gaglini, Mostyn Gale, Frank Huttlinger,
Bruce Maclaughlin, & Julie Palladino,

June

Matt Bonaccorso, Steve Cummings, Darrell Jones,
Harry Larson, Tom McKnett, Jean Markevich,
Chris Martin, Giorgio Perissinotto, Kurt Triffet, & Glen Webb



Tales From the Bench

by Ferdinand Geitner

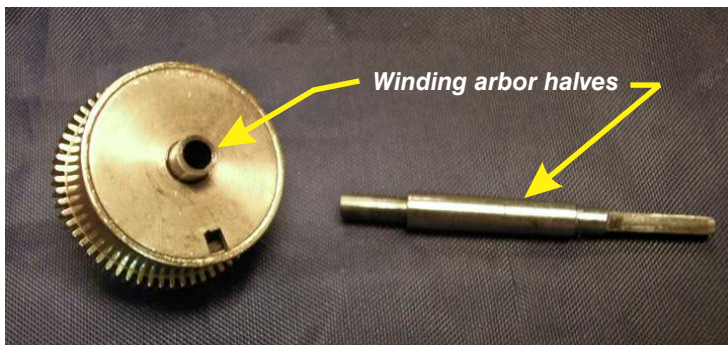
A day in the life of a Horologist

A Professional Fit

One of my customers bought a nice compact little French carriage clock in England from a reputable dealer but found that after some time the alarm function ceased to function. He was assured that it had been serviced expertly and after receiving an estimate from me was assured reimbursement. The customer was happy but what was the problem???

Initially the customer thought that the mainspring had broken because he could wind it and wind it and wind it, but after examining the movement I found it had a Maltese Stop mechanism which should have locked after several turns of the key, broken spring or not.

On closer examination I realized that one half of the barrel arbor was turning but the other half with the barrel stood still. It had been really expertly repaired. The long barrel arbor must have broken or was worn and someone repaired it expertly by inserting a new section, securing it with a (very tight) "friction fit". (see below)



Normally such a repair would be sufficient but a barrel arbor is subjected to a little more torque and the joint worked loose. The fit was so tight that trying to solder the joint could be problematic as there was practically no room (space) for any solder to grip and lock the items together. I created imperfections inside the fitting and marred the shaft going into the hole making the surfaces uneven without interfering with the trueness of the shaft, giving the solder something to grip on.

After "wetting" both parts separately (applying solder to each part), I heated them at the same time and pushed them together, removing any excess solder (which got pushed out). A

simple job in itself though it required taking the whole movement apart to remove the barrel and assembling it correctly making sure the striking wheels were in the



correct position for release, lock and strike.

Spaghetti

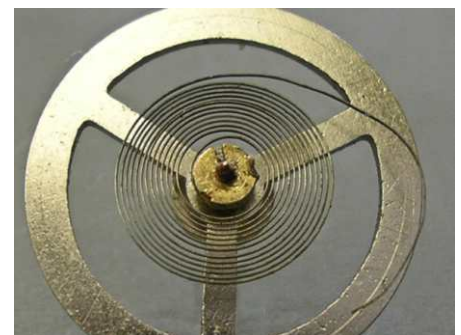
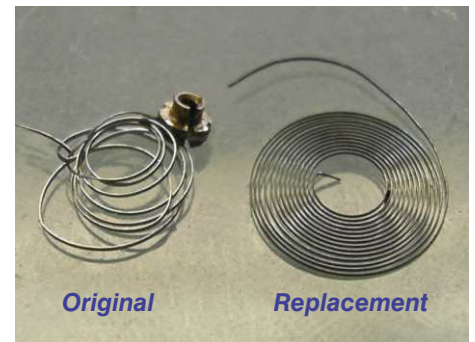
An interesting and eye-catching 8 day "pocket watch" desk clock came to my shop the other day. Being a (probably) "Chinese" copy of the early french glass ball desk clocks. It showed the time in six cities around the world simultaneously. Unlike the early french clocks which were wound and set through the crown this one has a separate key to wind it which has to be unscrewed first from a fitting and then screwed onto the winding arbor before winding, A rather tedious process but the movement used was not originally designed to fit behind glass.

It had been "repaired" previously but was not in working condition. As you'll see from the picture the hairspring had been turned into, what I call, spaghetti. The escapement, which is a cheap pin pallet, was floating in oil to the extent that the pallet almost stuck to the escape wheel.

Fortunately I have an assortment of hairsprings from which I could choose a close replacement because there was no way I wanted to attempt to straighten

the hairspring in question. As you can see the spring fits to the collet in a groove which can be straightened and tightened in a lathe to secure the new spring. Timing will take some time as the clock does not operate on a standard frequency therefore a timing machine is not an option. I could count all the teeth on the wheels and the pinions and calculate the correct frequency required or start with a spring of equal dimensions as the original, i.e.: strength/width/length. Then start with it a little longer, making adjustments twice a day until the regulator comes into play to advance or retard it (fast/slow) for exact (as close as possible) time keeping.

Just another time-consuming but interesting repair in the "dull" life of a Horological Workshop. ■



New hairspring installed on balance wheel

Clock Repair Books Review

by Ken McWilliams

I'm reviewing four books that are geared to the clock repairman or collectors who want to better understand the inner workings of clocks. Steven Conover is the author of three of these books and Edwin Sowers is the author of the final one.

If you have taken any of my repair classes or workshops then you already know who Steven Conover is. I have been touting his publications for many years. For those of you who are not familiar with Steve, he has written close to a dozen clock repair books.

He has the unique ability of turning difficult subjects into easily understood explanations. All of his books and publications are heavily illustrated with drawings and pictures to emphasize and explain the written word.

He also published the monthly "Clockmaker's Newsletter" from September 1987 until December 2009. That's 256 newsletters. Being the editor of this, and other newsletters, I can really appreciate the effort and dedication required to accomplish this feat. (I own all 256 newsletters, in addition to all of Steve's books.) The clockmaker's newsletter consisted of articles on tools, equipment, and methods associated with the repair of antique clocks. Each issue also fielded questions from readers on virtually every conceivable problem encountered when repairing mechanical clocks.

He often brought in experts such as Laurie Penman to answer reader's questions. Steve and Laurie once helped me solve a very baffling Vienna regulator problem. Armed with the experience and knowledge of these guys, the source of the problem was identified in short order.

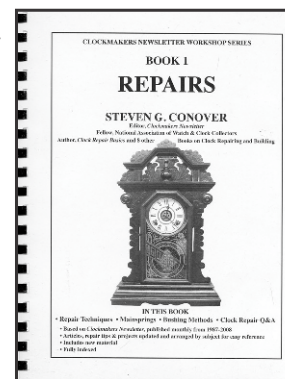
Steve's latest books are revisited articles from 21 years of the clockmaker's newsletter. When I told Steve that I would be reviewing his latest books in our newsletter, he offered the following comments:

"Since you are going to review the books, I would like to say a bit about them. If someone has all the newsletters and asks about ordering the book series as they are published, I tell them the content is mostly the same as it was in the newsletter. It is the organization by topic and the editing that makes the greatest difference.

For example, a two-part article that brought reader response, or debate, that was spread over several later issues, is now placed all together as a single article, with the responses following immediately after. I have also edited many of the articles, correcting small details or improving the clarity and flow. Some obsolete newsletter items are being dropped from the books. I am primarily looking for a new audience made up of those who did not subscribe to the original newsletters."

Book 1, "Repairs"

This book, as are all of Steve's books, is 8.5 x 11, comb bound so that they will lay flat on a table for easy reference. The "**Repairs**" book has 190 pages with an eight page cross index that makes it easy to locate any subject covered in the book. The four chapters are; Techniques, Mainsprings, Bushing Methods and Clock Repair Q&A.



In the first chapter, Steve covers many basics such as setting up your first work area, cleaning clock movements, cleaning the floating balance escapement, a discussion by Laurie Penman on the use of ammonia in clock cleaning solutions, discussions on clock oil and grease, repairing chime rods, lacquering clocks, hand clutch problems, assembling American movements, soldering in clock repair, making a letdown key, lantern pinion repair methods, and pivot refinishing and polishing.

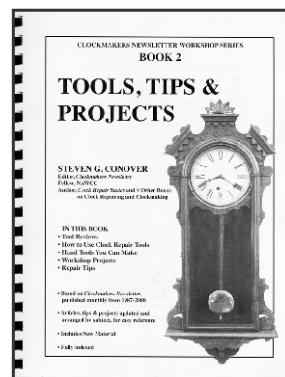
The second chapter "Mainsprings" covers this subject very thoroughly. It is both basic and technical. You will learn how to make your own retainers, mainspring cleaning methods, annealing small mainsprings, replacing broken mainsprings hooks, lubrication, barreled mainsprings, French clock mainsprings, American clocks mainsprings, making replacement barrel hooks, and making mainsprings (a very technical and comprehensive article)

Chapter 3 "Bushing Methods" covers just about every problem associated with clock bushing's. Steve shows the correct way to bush and explains why. He goes into detail on how pivots wear plates and the importance, and methods, of installing a bushing correctly. He also covers making your own bushings, hand bushing, and bushing machines. In general, this is a very complete, easy to understand, article on clock bushing.

Chapter 4 "Q & A" is a small sampling of the hundreds of questions asked in the "Clockmaker's Newsletter." It will be very educational to the person new to clock repair, and even the seasoned pro may learn a thing or two.

Book 2, "Tools, Tips and Projects"

This book has 181 pages with a great cross index, and covers tool reviews, how to use clock repair tools, hand tools you can make, workshop projects, and repair tips. It is a treasure of information on the use of tools and useful tools and tooling that you can make. **Cont. on page 5**



Continued from page 4

It has hundreds of illustrations, pictures, and diagrams to aid in understanding the article. Regardless of your experience, I guarantee that you will acquire a better understanding of clock repair tools from this book.

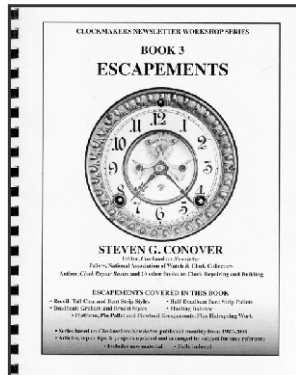
Book 3, "Escapements"

Escapements are the heart of clocks. They are also the most perplexing and most difficult part of the movement to understand.

Steven has done a magnificent job of accumulating the information contained in 21 years of the clockmaker's newsletter, and compiling it into 159 pages of useful, easily understood, information. He

covers: the recoil (tall case and that bent strip styles), half dead beat bent strip pallets, deadbeat (Graham and Brocot styles), floating balance, platform escapements, pin pallets, pin wheel, and hairspring work. The last chapter is on pendulums and timekeeping. As usual, this book is generously populated with pictures and illustrations. I would consider this to be a first choice for any person new to, or considering going into, clock repair.

In summary, these books would be a great addition to any clock repair person's library. In this business, there is no such thing as having too much information. Steve's books can be purchased at: Amazon.com, the NAWCC.org store, or directly from his web store; www.clockmakersnewsletter.com. (Free shipping)



Challenging Repairs to Interesting Clocks.

By Edwin Sowers III

Like Steven Conover's books previously reviewed, Edwin has compiled a collection of his articles initially distributed among three horological publications. The publications are: the NAWCC's Watch and Clock Bulletin, the AWCI's Horological Times, and Steven Conover's Clockmakers Newsletter.

Edwin was a retired research and development project manager with an M.S. degree in mechanical engineering. He was a member of the NAWCC and the AWCI and was a certified master clockmaker (CMC). Edwin submitted the manuscript for this book to the NAWCC for publication early in 2012. Sadly, Edwin died suddenly in April of that year, and never saw the final results of his efforts.

The book is 8.5 x 11, with 132 pages. It consists of 32 articles with many photographs, some of which are in

full color. Edwin's articles cover the more unusual, or as he says, interesting clocks. Some of the clocks and problems that he addresses are: the Atmos clock, Barr clock, Poole clock, banjo clock, fabrication and replacement of Brocot escapement pallets, "Terry's patent" calendar clock, repair of the cone cup screw, cuckoo music movement repair, rebuilding deadbeat escapement pallets, closing a deadbeat pallet, multiple repairs to a mainspring barrel, maintaining power, hour wheel tooth repair, successfully installing a paper dial, clock case repair, reproduction of the missing rosette, clock case veneer restoration, and tall case date wheel repair.

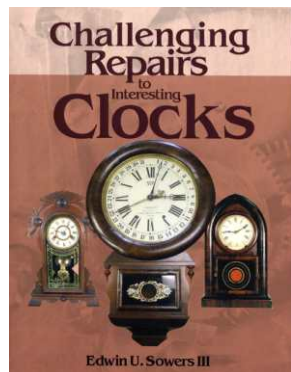
The articles are well written, step-by-step instructions. The pictures and illustrations make it easy to understand what the author is saying. This book is great reading for all clock repair experience levels. It can be purchased from the NAWCC.org store.

I will bring all of the books reviewed here to Chapter 190's May meeting, so that you can evaluate them yourself. ■

CORRECTION NOTICE

In April's special edition to the Chrono Times, I wrote an article on "*Rubel Castle's Tower Clock.*" In it I stated that John Lundstrum, the present caretaker of the clock, had no prior clock experience. I was mistaken, John had no prior *Tower Clock* experience, but he did have clock knowledge. In fact, he had been a member of the NAWCC. Sorry John, I should have paid better attention.

Also, several people told me that they could not contact anyone at the Glendora Historical Society to make tour reservations. Like Ch. 190, they are an all volunteer organization, so be patient. **You must leave a message.** Someone will get back to you within a day or two.



Welcome New Members

Michael Arnoldus
from Ventura



★ Sue Hill Breckenridge,
from Helena, Montana

Peter Racette
from Fillmore



George Sessions
from Goleta

The **MAY** Chapter 190 Meeting
is May 19, 2013

Sellers may start setting up at 11:30

The Mart is open from 12:00 til 1:15

The Meeting starts at 1:15

PROGRAM

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Presented by Ferdinand Geitner

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EDUCATIONAL OPPORTUNITIES

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Prerequisite: Interest & Curiosity in mechanical clocks.
All tools & movements supplied,

Contact Mike Schmidt phone; 805 988-1764
e-mail; eaglecreekclocks@msn.com

*Suggestions for chapter 190 workshops,
demonstrations, or programs are always welcome.
Contact any board member with your ideas.*

This Month's Mini-Workshop

At 10:30AM

The opening subject will be "Electric Self Winding Clocks" The workshop will be led by George Antinarelli and Ernie Jenson. This is a round table discussion where everyone gets to join in and learn.

THE WORKSHOPS ARE ALWAYS FREE!

If there is a topic that you would like to learn about, just mention it at the workshop. We are always looking for good topics

May Auction

Three Vienna Regulators will be auctioned
from the "Glantz Collection"

ALL PROCEEDS GO TO CHAPTER 190



2 weight Vienna
Regulator circa 1920's.
Gustav Becker,
Art Deco style

3 weight Vienna Regulator
circa 1910-20's. Junghans
Altdeutch - Baroque. This
has a very nice case with
excellent carving.



3 weight Vienna
Regulator, circa. 1860,
Early Transitional style
with porcelain dial a
piecrust bezel. No maker.



CLASSIFIED PAGE

This page is dedicated to advertising for Chapter 190 members. It is, of course, free to members.

SERVICES OFFERED

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Monday through Saturday 10:00 to 6:00 pm.

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FOR SALE

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Dave Coatsworth

dave@daveswatchparts.com



MicroSet Timers for Clocks and Watches

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www.WatchTimer.com

Mumford Micro Systems

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Santa Barbara, CA 93110

(805) 687-5116

WANTED

"I have 5 Vienna R/A's, 1 Vienna Regulator single weight (bedroom clock), and 1 German box clock that need crowns; preferably dark in color
Width:

German Box: 13" • 3 Vienna R/A's: 13-1/2" to 14"

2 Vienna R/A's: 16" • 1-wt Vienna Regulator: 17"

I fully realize that crowns do not attach uniformly and may need some customization to make them fit."

Ralph Napolitano, e-mail: RalphNapolitano@msn.com

Ph: 805 509-2530

Antique French 2 or 3 dial calendar clocks.

Antique English 2 or 3 gear-train skeleton clock.

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French type-platform escapement (no pendulum)

Winding hole spacing of 38.9 mm, (1.53")

Repairable, other details available on request.

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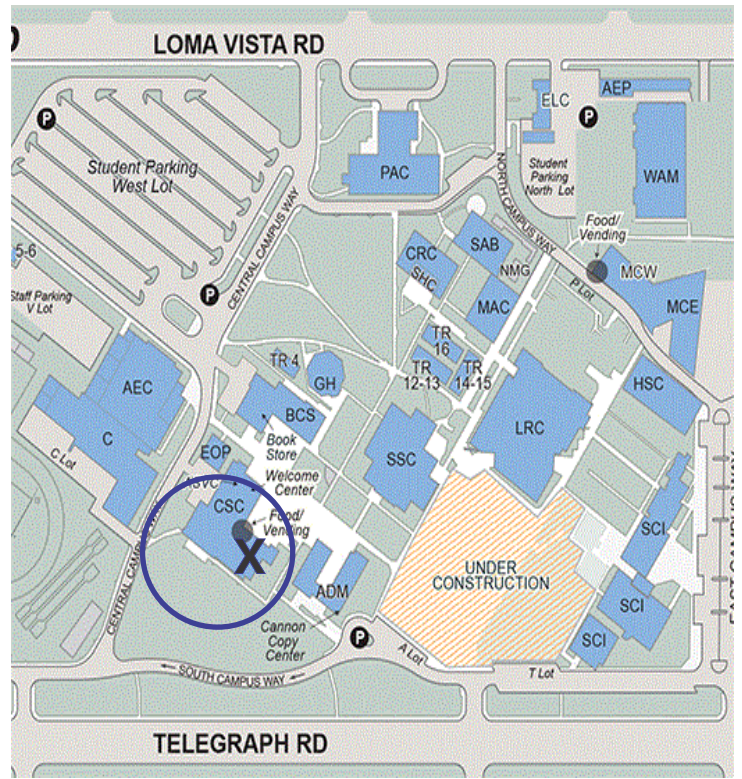
- Chronometer -

Hamilton 21 Marine Chronometer in running condition, with inner box and gimbals; outer box not essential.

Please contact: Giorgio Perissinotto

E-mail: **giorgio@spanport.ucsb.edu**

The Chapter 190 meetings are held the third Sunday of each month. (No meeting in December)
 We will meet in the Campus Student Center (CSC) on the Ventura College campus. The CSC is located in building "B", east of the gym and



May - June, 2013 Issue

No Meeting In June

NEXT MEETING
MAY 19



If Undeliverable return To:
 17738 Superior St. Unit 21
 Northridge, CA 91325

Chrono Times

San Fernando Valley Chapter 75 of the NAWCC

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TABLES _____	X \$15.00 _____
ADMISSION _____	X \$ 5.00 _____
Admission at the Door.....\$7.00 Each	
TOTAL DUE	\$ _____

TIME FOR EVERYONE

THE ORIGINS,
EVOLUTION,
AND FUTURE
OF PUBLIC TIME

NOVEMBER 7-9, 2013
CALIFORNIA INSTITUTE
OF TECHNOLOGY
PASADENA, CALIFORNIA



Twenty years ago at Harvard University, the Longitude Symposium brought together 500 people interested in the history of timekeeping. Another epic gathering this year at Caltech will present twenty-three major thinkers with ideas on space time and brain time, on ancient clocks and modern wristwatches and sliced nanoseconds. Please register while you still have time.

Background of the James Arthur Lecture
Jim Cipra, Chairman, NAWCC Ward Francillon Time Symposium Committee

James Arthur Lecture: The Time of Our Lives
William J. H. Andrewes, author, horological consultant, and sundial maker, Concord, Massachusetts

Welcome
Jean-Lou Chameau, President, California Institute of Technology

Introductory Remarks
Mostyn Gale, Chairman, 2013 NAWCC Ward Francillon Time Symposium

The Origin of the Universe and the Arrow of Time
Sean Carroll, California Institute of Technology

The Meaning of Time in Biology
Lynn Rothschild, NASA Ames Research Center; Stanford University; and Brown University

Time and the Brain
David Eagleman, Baylor College of Medicine

Recycling Time
E. C. Krupp, Griffith Observatory

The Bell and the Clock: The Need for Public Time
Dava Sobel, author, East Hampton, New York

From Water to Weights: The Mechanisms and Functions of Public Time Devices from the Early Middle Ages to c. 1650
Anthony Turner, author and historian of scientific instruments, Le Mesnil-Le-Roy, France

Precision Crunching, 1650-1900: Measuring Time Accurately over 250 Years
Jonathan Betts, Royal Museums Greenwich, London, U.K.

Bond Time: Pendulum, Spring, and Wire
Donald Saff, art historian, artist, and author, Oxford, Maryland

The Evolution of Tower Clock Movements and Their Design over the Past 800 Years
Mark Frank, horological researcher and collector, Chicago, Illinois

Extreme Amateur Timekeeping: From Harrison to Einstein
Tom Van Baak, physicist, mathematician, operating systems software engineer, and precision clock enthusiast, Bellevue, Washington

Time and the Early Modern Economy
Tracy Dennison, California Institute of Technology

The Great Age of the Tower Clock
Chris McKay, author and specialist in turret clocks, Wimborne, Dorset, U.K.

Affordable Time: Americas Contribution
Chris H. Bailey, formerly of American Clock & Watch Museum

The Standardizing of Civil Time
Geoff Chester, U.S. Naval Observatory

The Taming of Time
Jed Z. Buchwald, California Institute of Technology

From Bain to Shortt: Electrical Timekeeping, 1840-1940
James Nye, Kings College London and Antiquarian Horological Society, U.K.

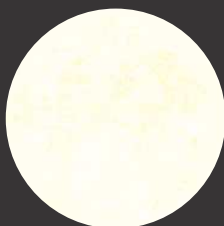
The Quartz Revolution: Quartz Clocks and the Public in Britain, 1930-60
David Rooney, Science Museum, London, U.K.

Atomic Clock: Does Anyone Really Know What Time It Is?
Thomas OBrian, National Institute of Standards and Technology



Keynote Address: Time, Einstein, and the Coolest Stuff in the Universe
William D. Phillips, Nobel Laureate, National Institute of Standards and Technology

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