

North American Sundial Society - Eleventh Annual Conference
Chicago, Illinois 2005 August 18 – 21
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Who would not enjoy the mystique and appeal of Chicago, that huge city on the shore of Lake Michigan? The architectural variety has to be seen to be appreciated. True, the weather was hot and sticky at the first, but it soon settled into very pleasant summer days and nights. DePaul University CTI Center provided a very comfortable setting for the thirty-four people who attended the sessions. Fourteen wives and one care-giver, all hailing from 13 states and a total of 13 from Argentina, Canada, Germany, Taiwan, and the United Kingdom. During the conference several wives took tours of Chicago and of the Chicago Art Museum with its special exhibition on Toulouse-Lautrec.



Rope geometry with Steve Luecking (photo: Fred Sawyer)

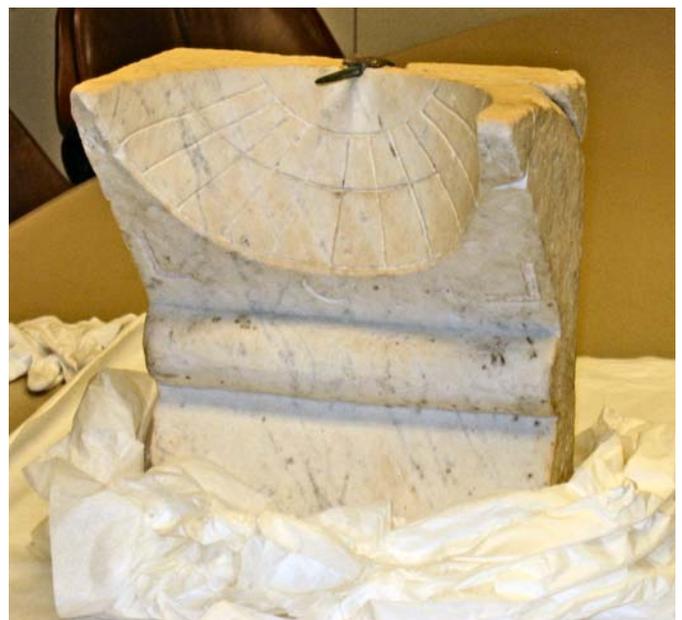
We began with two workshops by **Steve Luecking**. The first, “Rope Geometry,” was an exercise for a fairly large group out in Grant Park, where we learned how to set up an ellipse and draw a horizontal dial using only a knotted cord and stakes, in the fashion of the ancient Egyptian “rope-pullers” (civil engineers). The second was a hands-on computer introduction to the use of CAD in sundial design.

At registration a copy of the second edition of Lawrence E. Jones’ *The Sundial and Geometry* found its way into each packet. Steve Luecking also provided

free copies of *Proceedings [of the] ISAMA CTI 2004*, produced for a symposium on mathematics and design held at DePaul. Among the door prize winners were Dwight Carpenter (several things, including a peg dial and dial coins), Donn McNealy (Plymouth equatorial sundial), Carl Schneider (a copy of Mike Cowham’s *A Dial in Your Poke*), Dean Connors (A. P. Herbert’s *Sundials Old and New*). A copy of Frank Cousins’ *Sundials* became Walter Sanford’s prize, and Jacques Olin and Karl Schneider each received a copy of Simon Wheaton-Smith’s *Illustrating Shadows*.

Roger Bailey then showed how to program the programmable scientific calculator included in each registration packet. In doing so, he provided solutions to some of the equations useful in creating dials. Most actually got them to work!

After a continental breakfast on Friday we boarded the bus to visit first the Museum of Science and Industry to see dials in their collection, including a fine example of a first-century (AD) dial, adjudged to be a slight variant of a hemisphaerium.



A Pompeiian dial (photo: Jack Aubert)

We then toured some of the city to see Fountain of Time, a remarkable sculpture by Lorado Taft at the University of Chicago. Then we went out to see the DuPage County War Memorial Sundial, in a beautiful setting.



Fountain of Time (photo: Jack Aubert)



Exhibit behind the scenes at the Adler (photo: Jack Aubert)

Later in the afternoon we arrived for a special tour for each of three sub-groups at the Adler Planetarium.

Bruce Stephenson, director of the collection, showed off some of the prizes in that collection. We also had free time to peruse the exhibits.

Fred Sawyer then presented the **Sawyer Dialing Prize** to **Tony Moss** “in recognition of his achievement in combining superb craftsmanship, a lifetime’s teaching experience, and a constant desire to share knowledge, methods, and techniques in the practical art of dialing.” The prize consisted of a certificate, a cash award, and a specially commissioned trophy Spectra sundial by Jim Tallman.

After Tony’s acceptance speech, well salted with his humor, we adjourned to cocktails and a fine, delicious buffet dinner hosted by long-time NASS member **Madge Webster**. We had the option of taxi or a leisurely walk back to our hotels.



Fred presents the prize to Tony Moss (photo: Mike Shaw)

The papers on Saturday followed a continental breakfast and welcome. **Fred Sawyer** presented **Conical Boreals and Plinths**, carefully defining each and discussing the Engonaton (kneeling Hercules), a *conicum plinthium*, and *antiboreum* (two conical dials, the latter opening up to the north). He handed out paper models.

Roger Bailey presented **The Sundials of Giovanni Francesco Zarbula** (1830–76), an itinerant Italian painter and dial-maker in the Hautes-Alpes region of southern France. His work, done in a Baroque folk-art

style, is remarkable for the fact that he was probably not literate and had no mathematical tools or tables, but he used simple geometric constructions and the actual path of the sun.



Dinner at the Adler (photo: Mac Oglesby)



Attentive listeners (photo: Mac Oglesby)

Klaus Eichholz discussed **The Exploration of Sundials As an Interdisciplinary Task**, looking at Fr. Franz Xaver Josef Bovius (1677–1725), and in particular, a 1716 dial at Solnhofen and its restoration. He had explored theology, natural sciences, history, techniques of stone etching, and genealogy to provide a comprehensive story of this unusual priest.

During the break we watched a clever PowerPoint demonstration by Gerard Baillet of the motions of the sun. (Fred Sawyer checked with him about ordering the CD and was able to place several orders on a one-time basis for conference attendees.)



Hector Gutierrez Forsat with Fritz Stumpges' dials (photo: Fred Sawyer)

In his inimitable humorous way, **Mike Shaw** led us carefully through the steps of understanding and creating the ingenious **Universal Diallist's Companion**. This apparently simple device enables one to determine graphically the Sun's declination for any date and place on Earth (including the poles), its altitude, azimuth, times of rising and setting and crossing of the prime vertical, as well as the times of the three types of twilight and the limits of a dial. By special arrangement with Mike, Fred Sawyer distributed copies of the very useful device to everyone in attendance.

Fred Sawyer then introduced **A New Hectemoros Dial** that he devised using the position of the Sun on the hectemoros circle (which passes through the east and west points on the horizon and the Sun). The position of the shadow on a grid of hyperbolas determines the local hour angle, and hence the time – independent of the latitude; indeed, the dial is latitude independent.

Tony Moss then showed a PowerPoint CD, the first production of his Lindisfarne Presse, **“Using and Understanding Sundials” / “Concepts for Students of Sundialling.”** This splendid collection of 150 slides can be shuffled to allow a convenient presentation on dials. He had them for sale at the conference, but they

are also available by mail.

Following lunch, the Annual General Meeting took place, minutes of which are published elsewhere. At this time, Fred Sawyer announced that, through a fascinating series of phone calls he received, sun shadows (à la dials) may be a featured clue in an October episode of the television series “NUMB3RS.” Everyone is encouraged to watch. [See Fred’s article in this issue of *The Compendium*.]

Then **Larry McDavid** discussed his efforts and techniques in the **Restoration of a Vandalized Dial** at the California State University Arboretum at Fullerton. It involved a bit of detective work in establishing that the dial did belong at its site as well as replacing the gnomon in the re-establishing of the cast bronze dial, which he hopes will be soon. He went on to discuss the technique of patinization.

Don Petrie went to Italy in October of last year. His slide show of **Some Interesting Italian Sundials** charmed us all. His beautiful photos included Villa Borghese (Rome); Santa Maria degli Angeli e dei Martiri with its meridian line; the dial associated with some controversy with Augustus Caesar; the mirror dial of the Palazzo Spada; La Meridiana (house of Sir Lennox-Boyd); the Fountain of the Hours in Cervia; the conchincollo of the National Museum and the Civic Planetarium in Ravenna; the Museo Atestino at Este; Santa Maria Novella (Florence); and, of course, the Ponte Vecchio in Florence.

During the break Mike Shaw showed slides taken with the British Sundial Society in Italy. The day’s activities concluded with several brief presentations, including **Roger Bailey’s Digital Photography and Sundials**, and **Walter Sanford’s** introduction to **Sundials in the Science Olympiad** (a competitive program to encourage science activities in schools).

On Sunday morning **Roger Bailey** took us to Provence (France) to demonstrate **Designing a Sundial from Scratch — an Update**. Using only the principles of Greek geometry he showed how to produce a south-facing vertical dial, then vertical declining dials with

the concept of the tetrahedron to understand the 3-dimensional constructions.



A Sundial Demonstrator at the Adler (photo: Tony Moss)

Fred Sawyer related the story of Alice Morse Earle (1851 – 1911) in **Quelle Bavarde! A. M. Earle on Sundials**. She was an antiquarian, and Fred asked us to determine for ourselves whether she was social historian or a “gossip.” Authoress of such works as *The Sabbath in Puritan New England (1891)*, she also wrote a chapter on sundials in her 1901 work *Old Time Gardens* and also wrote *Sundials and Roses of Yesterday*. She addresses but does not fully answer the question, Why are sundials so rare in the United States? Her works are still available.

The Ralph Larkin Memorial Sundial is an equatorial in Claremont, California, erected in 1958. **Larry McDavid** examined it carefully and found its worst error to be less than 5 minutes, quite remarkable since the gnomon is a known convenient jungle bar for local children. He also demonstrated the progression of the equation of time using photos of the dial taken at the same standard time on several days during the year.

Informal presentations then included **Dean Conners'** comments on **An Educational Dial at a Montessori School** in Michigan and his plans for one. **Steve Luecking** presented **A Technique for Finding the Meridian** in a study he did for a 9/11 monument project. **Roger Bailey** studied some of his wife's Lancashire genealogy, including a visit to a Saxon church in Yorkshire with a mass dial dating from 1058. **Tony Moss** provided samples of some problems and solutions involved in photo etching of metal. **Ken Clark** has begun producing **noon marks**, which at one time were an ordinary part of the furniture of a home; he plans to make them available commercially. **Art Paque** showed how he designed and helped construct an analemmatic dial for the Urban Ecology Center at Riverside Park, Milwaukee, Wisconsin, in 2004.

In closing Fred Sawyer gave each registrant a small clever souvenir dial made of plastic with high refractive index. He then announced that the **Twelfth Annual NASS Conference** will be in 2004 August in Vancouver, British Columbia, hosted by Len and Tasoula Berggren.

Following the official closing **Steve Luecking** held an afternoon workshop on **3D CAD** and **Fred Sawyer** offered one on **Spherical Trigonometry**.

A rousing applause of thanks to both these gentlemen for a very successful conference!



The entire group at the DuPage County Memorial Sundial (photo: Fred Sawyer)



Conferees converge on the Henry Moore Sundial at the Adler Planetarium (photo: Fred Sawyer)



A Chicago Sunset (photo: Mike Shaw)