Notes Notes



# The British Sundial Society Annual Conference

Wyboston Lakes
April 29—May 1 2011

#### **Programme**

#### Friday 29th April

2.00pm Check in commences4:30 pm Refreshments6:00 pm Displays set up6:30pm Dinner

# Session Chairman: Chris Daniel 8:00 pm The Rainbow as a Timekeeper Allan Mills

There can be few people who have not admired the beauty of a rainbow curving across a cloudy sky, and wondered how it is produced. It has long been recognized that sunshine and rain together are required, but not until the 19t century was a comprehensive theory evolved. In particular, it was shown that there is a strict relationship between the apparent angular positions of rainbow and Sun for every observer. Theory also shows why a nearby spray (e.g. from a garden hose) produces a rainbow along the same angular cone as that generated by a comparatively distant shower of rain. Measurement of the apparent position of the rainbow in the sky therefore enables the celestial coordinates of the Sun to be calculated, from which the local solar time for the observer may be deduced. However, if the 'rainbow catcher' is held in the manner of a telescope on an equatorial mounting, then the latter acts as a mechanical analogue computer to indicate the time directly, just as with a conventional shadow-casting sundial.

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#### Programme

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#### **Our Andrew Somerville Speaker**

Dr Rebekah Higgitt completed her PhD in the History of Science at Imperial College London and undertook postdoctoral research at the University of Edinburgh. Since 2008 she has been *Curator of History of Science and Technology* at the National Maritime Museum and the Royal Observatory, Greenwich. Her research and publications have mainly focused on scientific institutions, scientific biography, history of science and the relationship between science and the public in 19th-century Britain.

Thank you for coming, I hope you have an interesting and enjoyable time.
Please do let us have your completed questionnaire back when convenient together with any other comments you may have.

Oh, and do please leave your badge holders and any neck chains with us before you leave so that we can use them again at the next conference.

Have a safe journey home.

Patrick Powers 2011 Conference Organiser

#### **The British Sundial Society**

c/o The Royal Astronomical Society, Burlington House, Piccadilly, London W1J 0BQ Phone: +44(0)1663 762415 Web: www.sundialsoc.org.uk Registered Charity No. 1032530 Affiliated to the Royal Astronomical Society (www.ras.org.uk)

## 8:30 pm The Last Scratching of an Old Bird Tony Moss

What a retired dial maker does for his five grandchildren with 120kg of surplus engraving brass

# 9:00 pm A Norwegian horizontal sundial dated 1407 Johan Wikander

The sundial is owned by University of Trondheim. It is carved on soapstone and probably comes from a former monastery on the West coast of Norway. The sundial is listed in the museum catalogue as made in 1407; a date decided according to its carving.

However, the system of counting the hours and the writing of the Arabic numerals are not in accord with the early 15th century. Most probably the sundial was made around 1600. However, we can not say that the sundial is a forgery; perhaps the sundial was linked to an anniversary of some kind?

21:15 Questions 21:20 Displays and Bar

#### Saturday 30th April

7:00am-8:30am Breakfast 8:30am-8:55am Displays and Bookstall

# Session Chairman: Geoff Parsons 9:00 am La Hire and Picard—Examining the dialing innovations of these two astronomers.

#### Fred Sawyer

This talk will focus on Philippe de La Hire and Jean Picard, two seventeenth century French astronomers/mathematicians. After a synopsis of their backgrounds, I will consider the contributions to dialling that get each of them a mention in most general histories of the subject - specifically, La Hire's construction of a dial from two shadows and Picard's introduction of precision into the layout of large sundials.

## 9:40 am Wherever the gnomon points Roger Bowling

Membership of the British Sundial Society has brought to many of us knowledge of much else besides sundials. Alfred Lord Tennyson and the London livery companies, are just two examples. Membership has also taken me into places and situations where I never intended or expected to find myself, metaphorically speaking, that is. Here are just three of them.

10:10 Questions 10:15 am Coffee and Displays

# Session Chairman: Fred Sawyer 10:45 In Search of the Earliest British Scientific Dials John Davis

This presentation will describe an ongoing study to find the origins of British dials which show equal hours using a polar-pointing gnomon. Starting in the Elizabethan period, I will work backwards in time showing both actual dials and then, in the pre-Kratzer period, the manuscript evidence. Comparisons with Continental and Islamic dials will also be made

#### 11:30 am Solar Bracelets and Solar Buckets John Lynes

Buildings in dry tropical climates require total exclusion of direct sunlight. Even in Britain art galleries may need fixed solar protection. The design of a brise-soliel is closely related to the design of a sundial. Solstice declination lines define the bounding lines of the ideal shadow-caster, which is known as a "solar bracelet".

However the profile of the bracelet is not easy to accommodate architecturally. Ways of dodging this drawback will be discussed.

## 12:15 pm Before the BSS - A Sundial Chronicle

#### **Chris Daniel**

The author uses the Foundation of the Society in 1989 as a base-line for reflecting on his career as a sundial designer. In particular, against the background of the National Maritime Museum administration, he gives an account of his progress in his first proper sundial design — the Dolphin dial at Greenwich — and goes on to describe some of his more notable designs in the ensuing years.

12:55pm Questions 1:00pm Lunch

### 14:10 pm Coach departs for the afternoon dial tour

17:30 pm-19:00 pm Displays and Bookstall 18:00 pm Bar 19:30 pm Conference Dinner & Awards 21:00—23:00pm Bar

#### **Sunday 1st May**

7:00am-8:30am Breakfast 8:30am-8:55am Displays and Bookstall

#### Session Chairman Mike Shaw 9:00 am Story of a Sundial Alastair Hunter

It takes time to design a new sundial. The story of this one started with musings about the sun, and has finally become, ten years later, a personalised series of sundials for the garden. The Society's input has been immense, especially with encyclopaedic design information all to hand in the BSS Sundial Glossary. For a designer who lacked even basic sundial knowledge, there was a long way to go—an array of prototype ideas and sunshine tests, a system adaptable for different locations, a collaboration of skilled and expert people, a piece of practical engineering combined with visual art.

## 9:30am Christianity, Mass Dials & Reformation

#### **Chris Williams**

Earlier mass/scratch dial findings - their universality, multiple dials per church, and their evolution by type - are examined within their contemporaneous religious context. With interesting two way results: Not only from religious history to mass dial understanding, but vice versa. Statistical findings are explicable in terms of religious practice and change: But the pattern of surviving scratch dials can also inform Reformation history.

10:10 Questions 10:15 am Coffee and Displays

Session Chairman: Chris Daniel
10:45 am Some Unequal Hours are more
Unequal than Others, The Margaret
Stanier Memorial Sundial

#### Frank King

The traditional design of unequal-hours sundial has hour-lines at 15-degree intervals and is inherently flawed. This talk describes a real sundial which, while closely based on the traditional design, has improved accuracy and precision. It is argued that there is no simple measure of goodness. To some extent the improvement lies as much in the realm of taste as it does in the realm of geometry.

## 11:30 am The Andrew Somerville Lecture

# Ne quid pereat: Researching and collecting sundials in the age of precision time-keeping.

#### **Rebekah Higgitt**

This talk will focus on the origins of sundial collecting, considering the role and motivations of some early collectors of dials and other scientific instruments. These include George Gabb and Lewis Evans, whose collections are now largely at the National Maritime Museum and the Oxford Museum of the History of Science respectively. As well as reflecting on the history of scientific instrument collections, the talk will also consider the interest taken by historians of art and design, and the development of a sometimes romantic and nostalgic interest in collecting and publishing books on sundial mottos, motifs and construction. It is significant that these arose in the period in which sundials became, essentially, obsolete and this interest can be read as a reaction to the spread of precision timekeeping and standardised time - key elements of modernity - in the 19th and early 20th century.

12:30 pm Questions

### 12:35 pm Annual General Meeting and Discussion

1:00 pm Lunch2:00 pm Extra discussion time available if needed3:00 pm The Conference ends

Do look around the displays in the room behind the Lecture theatre. There are some interesting things to see.