

Contents of Bulletin 98, September 2008

R. Hooijenga

In Memoriam Herman Willem van der Wyck *Committee* 3

H.W. van der Wyck, Esq., died 7 July 2008 at the age of 87. He was member of the Zonnewijzerkring since 1981, and a committee member from 1985 to 1988. He was in charge of the 'Literature' section for many years, and wrote many contributions to the Bulletin. In 1994, he published *Het ABC van de Zonnewijzer* (The Sundial ABC), which is still in use by many beginners. His Sundial Song (a piano version is on our site) was played at his funeral.

Exhibition: The Telescope *Boerhaave Museum* 4

In 2008, the telescope celebrated its 400th anniversary. The exhibition on the occasion is still open until 19 April 2009. You can see the original very first description of the telescope and the patent application. Also on display are, among other things, the only remaining complete Huygens telescope and the largest collection of lenses by Huygens. Most of the telescopes on display are from the private collection of our member Louwman.

Prize-winning sundials in Italian contest *'Tubantia'* 5

Member Holman of Ootmarsum, out of 126 contestants, was awarded first prize for his entry in the Shadows of Time contest of Art Sundials for professionals in Brescia, Italy. More information and photographs are on http://www.astrofilibresciani.it/Meridiane/Ombre_del_tempo/Decima_edizione.htm, scroll down to 'Sezione Professionisti'

Book: Méridiennes *F. W. Maes* 6

Andrée Gotteland is known for her *Cadrans solaires de Paris*, written in collaboration with George Camus. Her newer work, *Les méridiennes du monde et leur histoire* (Noon markers of the world and their history), appeared in the fall of 2007. It counts nearly 1000 pages and the price is accordingly. However, there is now available a CDROM version of the book for just € 15,80.

Unfortunately, only two Dutch noon markers made it into the book, although Maes can think of at least eight others.

Summer field trip of 2008 *F. W. Maes* 7

This year's excursion was in the Rotterdam area. On the way to the first dial, a new vertical decliner by Hollander, the coach was too high for the viaduct. It was just a few steps by foot, but it was an omen. Several dimensions of the coach proved problematic: it kept being too high, too wide or too heavy for some of the roads and bridges, and manoeuvring in the small towns was an extra challenge in its own category.

The large wrought-iron wall dial in Waarder with its rooster and owl was nice to look at, but did not fit the 9 degree declination of the wall. The freshly restored decliner on the Haastrecht town hall suffered the same defect, the declination here being 35 degrees.

We had lunch on a sun-drenched Schoonhoven pavement. The Weighhouse was supposed to have a sundial on its roof, but it was away for restoration.

We could just make out the sundial on the Ottoland church across the water, then stopped at the house of its restorer, member Borsje. Over his front door is the 'Eigenwyzer' dial. The motto EIGENWYZER is a play on words. Its literal meaning is "my own dial", but it may also be read as "pigheaded" (in Dutch: eigenwijs). We also saw the dodecahedron with eleven sundials, and several models of special dials. Also by Borsje: a large, comma-shaped, slightly inclined garden sundial. It is currently for sale; the equally beautiful house is included.

After tea, the trip became rather pressed for time, so we headed back to Rotterdam for the last sundials. The one on the 'Globetrotter' school was a typical missed chance. The architect had the sundial designed himself, but somehow failed to spot the 19 degrees

declination of the wall. The decliner on the Nationale Nederlanden building was done rather more correctly. The steps under it were ideal for a group photo.

Hans de Rijk wins NWO prize for complete works F.J. de Vries 10

The Netherlands Organisation for Scientific Research awarded the Eureka first prize to member Hans de Rijk for 'the best oeuvre in the field of science communication'.

Two new sundials in Rupelmonde E. Daled 11

On 20 March, two new sundials were inaugurated here. One is the large vertical decliner on the home of the Flemish sundial society. This design by Pauwels was the winner in the design contest. The hour points, from 14 to 20 hours on this north-west facing wall, are the points of a large yellow sun. The gnomon and its supports are made of stainless steel. Interestingly, the house was already mentioned in local 1509 documents.

The other sundial is the St. Jan Berchmansschool equatorial sundial. It was designed by Patric Oyen, after an idea by Julien Lyssens. The cylindrical surface shows a world map by Willy Ory. The shadow of the nodus falls on the location where the sun is currently directly overhead. The younger schoolchildren painted the pedestal panels.

2x12 Italian hours F.J. de Vries 14

Italian hours divide the day into 24 equal hours, starting with zero at sunset. Reversing the count, we read remaining daylight hours.

As it turns out, there exists a system using two times twelve Italian hours (rather like the present am/pm system). The photograph shows a Turkish west decliner using this system. The numerals from 5 to 12 (modern figures added for clarity) would, in classic Italian style numbering, have read 17 to 24 (or 0). A further example is on the next page. It shows Babylonian hours in addition. Both dials have separate prayer lines.

Astro clock (1) B.P.U. Holman 15; 17

This 'astronomical' clock will appeal to sundial lovers. Whenever the sun fails, the clock will give all relevant data, including the equation of time. The design is a spin-off of the Bloemenbeek design, where a 70cm diameter clock will be built. – A clever feature is that the sun moves through the signs of the zodiac at the 'real' speed, enabling one to read the date. – It should be easy to duplicate this clock.

Holman used an antique French school clock that he modified for 24-hours use by quadrupling the pendulum length. Other prime movers are possible. A fixed disk shows time (2x 12 hours), Babylonian time curves, tropics and equator, as well as the horizon and crepusculi. Two rotating Lexan disks show a) zodiac, date and ecliptic; b) various hands and equation of time.

The clock shows: MET and MEST; Ootmarssum mean solar time; Babylonian or Temporal hours, which are short in winter but very long in summer (Note: this is different from the usual gnomonic meaning of "Babylonian"); local Ootmarssum sidereal time; position of the sun in the zodiac; start of the seasons; date and month; sunrise and sunset; duration of dawn and dusk; equation of time.

The Ideal Sundial: rating system J.A.F. de Rijk 16

In an attempt towards some sort of sundial quality rating system, De Rijk lists ten criteria: originality (mathematical and esthetical), readability, precision, range, size suitability, orientation method, vulnerability, durability, materials suitability, reproducibility. Comments are requested.

Twee postcards and a lamb tikka J.A.F. de Rijk 22

While waiting at the takeaway, De Rijk invented yet another paper sundial. Two variants are shown. The card is folded so that the angle equals the latitude. The sunlight falls through the cut-out hole.

- Sundial on Oriole House* *F.J. de Vries* 22
 The photograph shows the sundial on Oriole, once residence of Frits Philips of the well-known electronics makers. Until now, the dial was not listed in our database.
- Equation of Time calculation* *F.H. Fockens* 24
 Having pointed out earlier that the value for the equation of time can be approximated quite well by the addition of two sine functions, Fockens now sets out to find an exact expression. He uses analytical geometry to determine the effect of the ellipsoidal shape of the orbit of the earth, and spherical geometry to investigate that of the obliqueness of the earth's axis. As it turns out, neither of the components of the EOT is sinusoidal in nature. Testing his final expression, Fockens finds a difference of less than half a second at the extremes, when compared to Meeus' tables.
- Trifilar sundial (2)* *F.J. de Vries* 30
 De Vries built a Rouxel trifilar dial out of some pieces of wood, a bit of string, and Scotch tape. The photographs show how the triangle in the three shadows closes up at true noon. Turning the board a bit, it happened again, in a simulation of another date.
- Ludger / Bloemenbeek monument* *B.P.U. Holman* 31
 "Twente's Stonehenge", on a field against a belt of trees and shrubbery, is 55m long and 35m wide. The menhir circle is 20m in diameter. The idea behind the design is the Christianization of the region by St. Ludger, who died 26 March 809, 1200 years ago.
 The Light that he brought plays an import role. Seven menhirs represent the seven heathen gods and the days of the week. St. Ludger and his companion Winfried (Bonifacius) are within the circle, holding a large bronze cross with the Star of Bethlehem, a comet, on top. Comet and cross represent birth and death of Christ.
 The seven menhirs, together with five large boulders, represent the twelve apostles. They are so positioned that the shadow of the comet's nucleus, the bronze ball, indicates local apparent time.
 Four further menhirs outline a virtual cross of 55 by 34 meters, oriented north-south. At the head are three menhirs representing the Trinity. At the foot and at the ends of the traverse are also menhirs. The four corners also stand for water, earth, wind, and fire. – At local noon, sunlight falling through a hole in the bronze cross indicates the date on a granite slab north of the two Fathers.
 A smaller slab, on the other side, has markings for persons of different heights to stand on. They can then sight Polaris over the bronze ball.
 The composition of menhirs and stones, but without any visible lines, is rather mysterious-looking, which is intentional. There is, however, a information globe near the monument, and the Bloemenbeek hotel has a flyer with a complete description.
- Anniversary booklet: Sundials in the Netherlands* *J.G.T.M. Taudin Chabot* 40
 All members of De Zonnewijzerkring received this book on the occasion of our 30th anniversary. It is an abridged list of the visible sundials known to the society.
- Poem 'Shadow'* *Nini Salet* 40
 I sit on the yellow glaze, waiting / you slide past me / together we pass into the blue evening
- Equation of Time and Declination for 2009* *Th. de Vries* 41
 Calculations include the effects of moon and planets on the earth.