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Article of the month July

ANALEMMA The terrible word

The word **analemma** should disappear from scientific publications. It leads to nothing but misunderstandings.

The Greek word literally means: raise, erection, foundation.

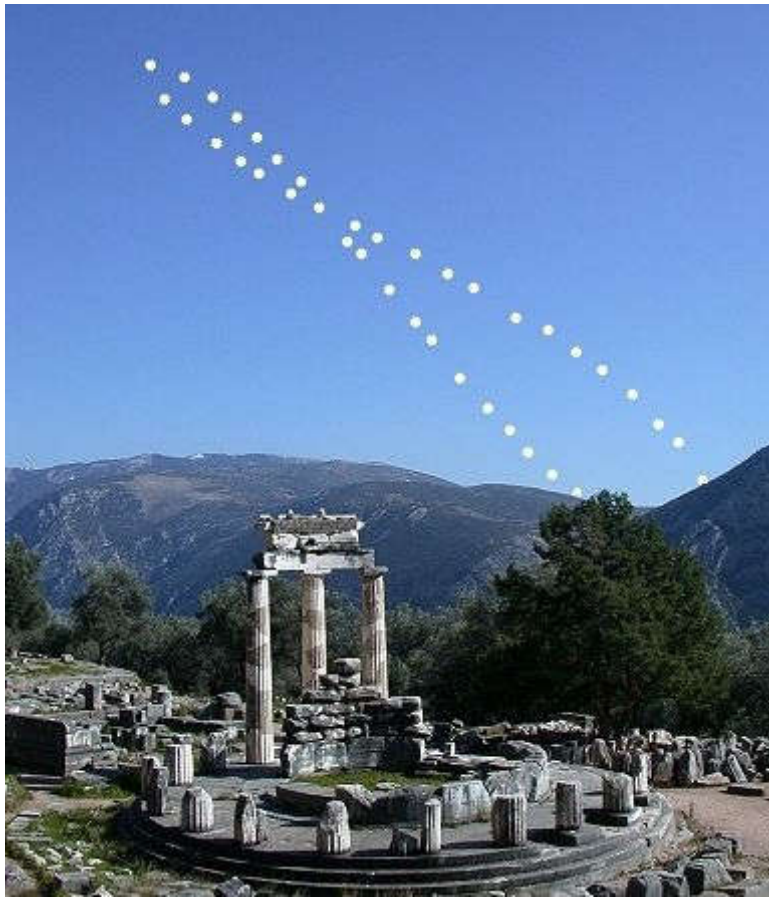
Ptolemeus, the famous mathematician and astronomer who lived in Alexandria around 140 AD, followed the Roman architect Vitruvius in using the word for an ingenious projection of the celestial globe on the meridian plane.

In 1640, the Frenchman **M. de Vaulezard** wrote a 15-page booklet, *Traicté ou Usage du Quadrant analematique*, in which he described the sundial still known as the analemmatic dial as his invention. The last is not true, because there was such a dial on the Brou, France cathedral square much earlier. It is not clear why he used the word analemma; possibly because he used Ptolemeus' analemma in the construction.

The English astronomer **Foster** discussed this type of sundial in detail fourteen years later in his book *Elliptical or Azimuthal Horologigraphy*. Fortunately, the word analemma did not appear in his work.

Because the French Brou dial, and many more like it, can be constructed by projecting the equator in arbitrary directions on arbitrary planes, I would rather call this type of sundial an **equator projection dial**. (See this site for a detailed [discussion in English](#).)

This is not the end of the confusion, because several publications refer to the Equation of Time figure as to the analemma.



Sunrise Analemma

[Source](#)

The subtitle of this unique photograph, which was exposed 39 times over the course of one year, is Sunrise Analemma.

The accompanying text reads:

"An analemma is the figure-8 loop you get when you mark the position of the Sun at the same time each day throughout the year."

Where and by whom this Equation of Time figure was christened "analemma" is anyone's guess.

Nevertheless, is Anthony Ayiomamitis' multiple exposure not gorgeous? When you descend from the Delphi temple and monuments, you will have this view of the ruins.

I stayed in Delphi for two weeks, and I can assure you: everything there is worthwhile, but this view is particularly beautiful.

Let us agree on this:

ANALEMMA is the projection method used by Ptolemy and Vitruvius, and it has nothing to do with the Equation of Time loop.

Unfortunately, it is difficult to change established expressions. Electricity is said to flow from plus to minus, although we have known for ages that what actually flows (the electrons) moves from minus to plus.

Hans de Rijk

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English translation: RH