

# The Compendium\*

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North American Sundial Society



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*Life is the conversion of time into memories.*

*- Aaron R. Warren*

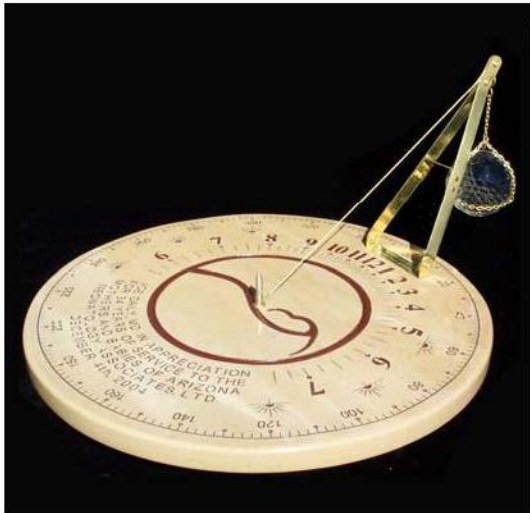
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\* *Compendium...* "giving the sense and substance of the topic within small compass." In dialing, a compendium is a single instrument incorporating a variety of dial types and ancillary tools.

## Different Sundials By John Carmichael

John Carmichael (Tucson AZ)

To date, I have made 103 stone sundials and several other dials in other media such as wood, stained glass, living plants, porcelain and paint. In 1994 I made my first three sundials out of wood; then I began designing and making horizontal hand-carved stone sundials with a stranded cable polar axis gnomon held taught by a counterweight. This copyrighted design permitted artwork carvings over the entire face of the sundial and produced an accurate, easy-to-read shadow that's visible from any angle. (See photo). To add a nodus to my cable gnomons I attach a brass ball or bead with a hole in it to the cable as on The Flandrau Planetarium sundial. (See photo). Until recently, stone sundials with cable gnomons have been the bulk of my sundial business at my company, Sundial Sculptures. See website at [www.sundialsculptures.com](http://www.sundialsculptures.com).



But as time passed and my knowledge and experiences grew, I began designing and making other types of sundials using a wide variety of media and different types of gnomons. In 2003, I included in my product line horizontal dials with thick stone inlaid gnomons. Although there is no available space on the sundial face underneath the gnomon for extra artwork, thick gnomons are stronger and more vandal-resistant than the cable gnomons. People like the look and the idea of a sundial being made entirely of stone. They are very popular with my clients and annual sales of these now surpass my original cable gnomon design. (See photos)





Thick gnomons are good choices for monumental sized sundials because they are structurally strong and child-resistant. I used thick gnomons for the living plant sundial at the Brookside Botanical Gardens in Wheaton MD (See 1 photo) and The Desert Botanical Gardens in Phoenix AZ. More and more I have been designing sundials that other people build. I designed these dials and consulted with the contractors who built them. In 2005 I also used a thick gnomon for an eight foot wide, solid bronze dial at Forest Lawn Cemetery in Omaha Nebraska.

In 2003, inspired by Roger Bailey's work on seasonal markers, I made my first stone analemmatic sundial for placement on a pedestal. It was the first known sundial to incorporate Roger's seasonal markers and one of the first modern examples of a pedestal analemmatic. It has a moveable perpendicular brass gnomon with a fancy little tripod base and inlaid brass balls for the hour marks. These are also a popular design and I have made and sold several of them since. (See 2 photos)



In 2004, I became interested in stained glass sundials after having seen one at the BSS conference in York England. I have always loved colorful stained glass windows and relished the possibility of making one



someday. The idea of making sundials in colors that do not fade was overwhelming since I had been limited to monochrome colors for my stone sundials. But since I did not know how to work in stained glass, I enrolled in a beginner's stained glass class to learn how. This resulted in a huge project that took me two years to complete. I designed and built a very large stained glass sundial for a custom-made bay window in the living room of my home. My investigations into the subject of stained glass sundials inspired the educational website at [www.stainedglasssundials.com](http://www.stainedglasssundials.com). I also made a small dial for Oxford University but have not made any others since and would love to get a commission for a stained glass sundial in a public setting since they are so fun to make and the world needs more of them. (See 2 photos).



My investigations into stained glass opened my eyes to other durable vitreous mediums such as kiln-fired porcelain on steel, mosaics and ceramics. I knew that multi-sided sundials were possible and it occurred to me that one could make a cupola with a sundial on each side. I decided I wanted one on the roof of my house. I found companies that make cupolas but I thought I'd save money and have more fun if I made it myself. After finding a company that makes porcelain signs using a photographic silk screening technique, I employed them to make the porcelain sundial faces for the first sundial cupola in North America. (See photo). That company was KVO Industries. (Actually, they only made three of the faces. The old man who

made the first face for me died soon after he made it.) I made the cupola from wood and copper and I purchased the weathervane. Designing it took more time than building it. I recommend that members of The Sundial Society consider making some future porcelain sundials, not necessarily on cupolas. You just send the porcelain company your sundial drawings and they will make the face for you. But if you'd like to make a sundial cupola, you can obtain my free cupola construction plans and see construction photos and photos of other sundial cupolas and towers at this website: <http://StainedGlassSundials.com/CupolaSundial/index.html>

In 2005 I made a mixed media sundial that has a baked colored porcelain steel face with a stained glass decorative border. There is an electric light behind the sundial which allows it to function as a wall sconce at night.



The light is surrounded by a metal shade with "shark tooth" notches cut into it. At night, this sends rays of light out onto the wall and illuminates the stained glass from behind. This is the first of my sundials to have a perpendicular rod gnomon with a ball nodus on top. (See 3 Photos).





I have seen photos of beautiful hand painted wall sundials that are common in Europe and I have always wanted to try my own hand at making one. The opportunity presented itself in 2006 when I mentioned the possibility to a client who wanted a wall sundial. She wanted a modern design with a classical look. Borrowing from European designs, I surrounded the dial with a classic ribbon for the text and hour numerals. What makes this dial special is its conical gnomon. After doing some shadow casting experiments, I determined that for this type of dial, a perpendicular cone gnomon cast a shadow that was much more precise and easier to read than a post or a post and ball gnomon, especially when the shadow is long. I also found that an aperture gnomon would not work for this type of dial when the shadows are long. This declining wall dial is hand-painted on rough textured stucco using elastomeric acrylic exterior paints with a matte finish. (See 3 photos). For more photos and information on this dial see this website: <http://www.advanceassociates.com/WallDial>.



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