How to tell time with the sundial

To read the sundial, just look for the shadow of the gnomon (pronounced "no-mon"), the steel rod that casts the shadow, and notice where the center of the shadow falls on or between the numbers.

Use the largest, outermost numbers when daylight saving time is in effect, and use the middle numbers for the rest of the year.

Hours and half hours are marked by the radial lines of the quilt pattern.

Sundial time and clock time are not the same, but neither of them is wrong—they're just different types of time. So the time shown by the sundial will usually be a few minutes different from that shown by an accurate clock.

Clock time can be found by using the Equation of Time graph, which forms the mountains at the bottom of the sundial. (See explanation inside this brochure.)

For historical reference, the innermost numbers indicate local apparent time, which is the traditional sundial time that was the standard before we had time zones and daylight saving time.

Sundial designed by Bob Hampton and Martin Webster.

Thanks to Altec Industries for building the frame for the sundial, and to Heritage Lumber for installation equipment assistance and Jeff Phillips for installation.

Quilt Trails of Western North Carolina

Visit our Gift Shop

For gift items related to the Sundial and Quilt Trails, visit the Quilt Trails Gift Shop, located in the One of a Kind Gallery in Micaville. There you'll find resources for touring our Quilt Trails.

Tour the Quilt Trails

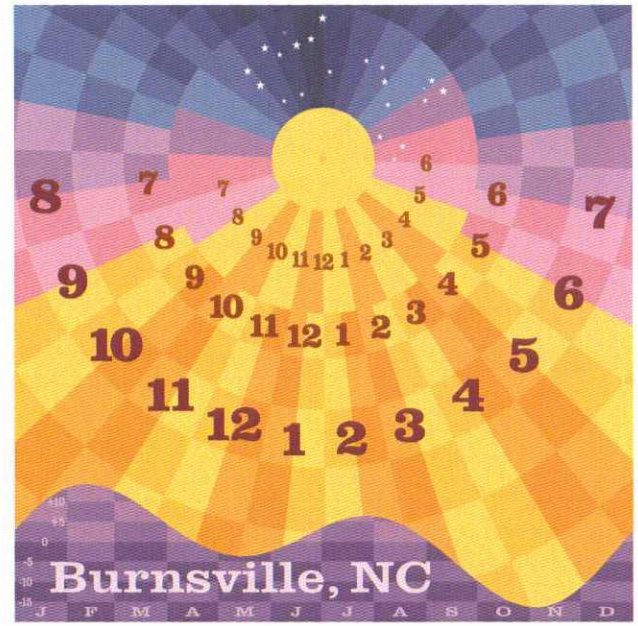
The Burnsville Sundial is one of more than 200 painted quilt blocks on barns and other buildings in Yancey and Mitchell Counties. At our Gift Shop you can purchase a map of all nine driving trails, along with Tour Guide booklets of each trail that tell the stories behind each block. You can also pick up a free map of our newest 10th trail, the Mt. Mitchell Scenic Byway Quilt Trail. Plan your own self-guided driving tour, or arrange at the Gift Shop for a guided tour.

Finding the blocks is a great way to see our beautiful mountains and to learn our wonderful stories. You will discover artist studios, working farms, waterfalls, rivers, and photogenic vistas. Hiking trails, delightful campgrounds, kayaking, canoeing and fishing, two quilt shops and golf at one of the country's most beautiful golf courses mean everyone in the family will find something fun to do. Driving the trails is a great family adventure—even on rainy days! Discover our communities and Mt. Mitchell, highest peak in the eastern United States. Come drive our Quilt Trails!

Burnsville is 45 minutes north of Asheville. Take I-26 exit 9.

The Burnsville Sundial

The world's first quilt block sundial



The 8-foot sundial is visible from the Burnsville Town Square at 22 North Main Street

Quilt Trails of Western North Carolina
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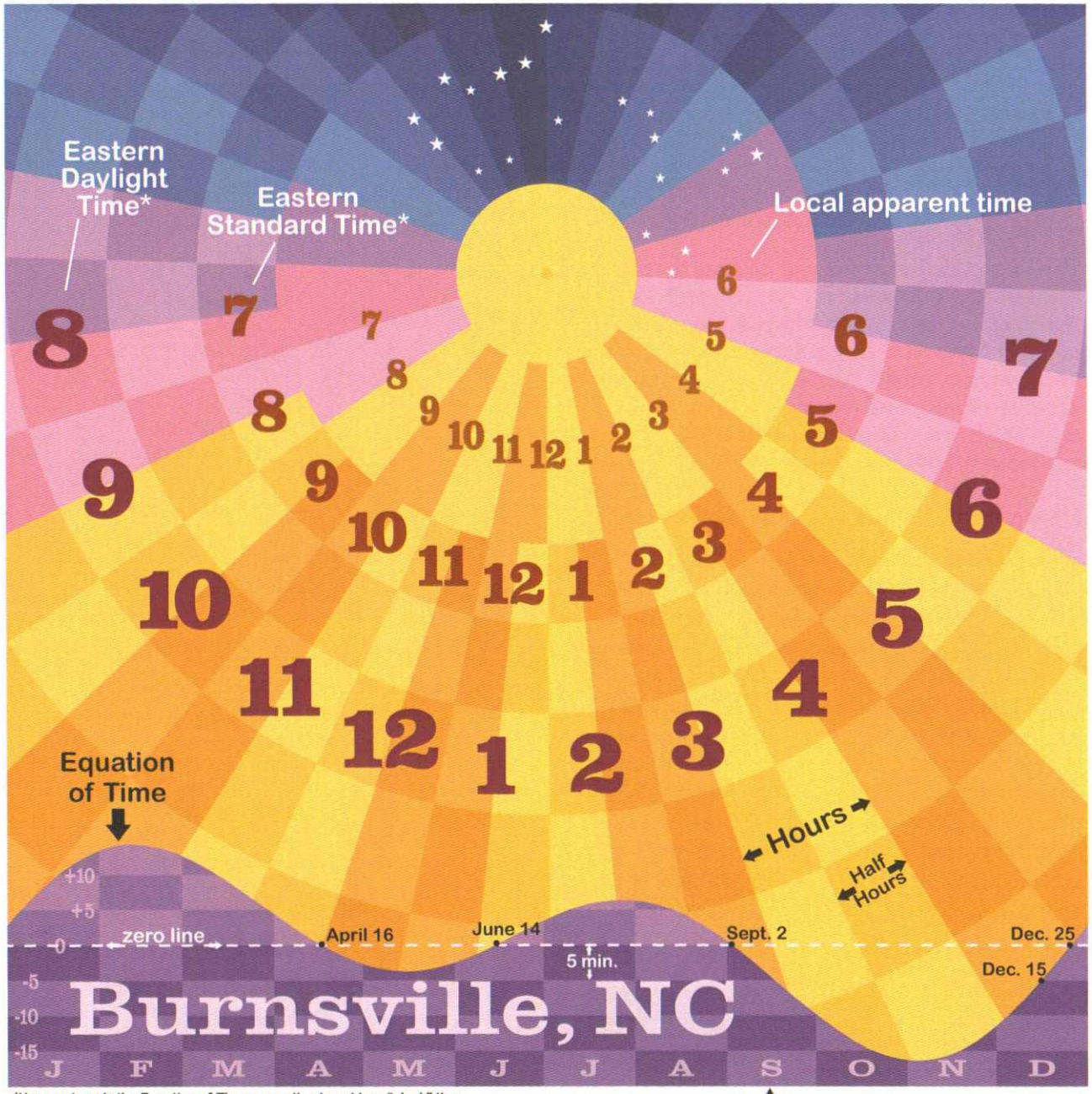
About the stars...

The stars at the top of the sundial represent the orientation of the sky as it was at sunrise on December 29, 1833, the first sunrise over the newly formed Yancey County! These are some of the stars one might have seen from Burnsville that day in the morning twilight over Phillips Knob. The brightest, most prominent stars in this part of the sky are those of the Big Dipper asterism, which is part of the constellation Ursa Major (the Great Bear). Also shown is the constellation Draco (the Dragon).



*You must apply the Equation of Time correction to get true "clock" time. Technically, this is zonal solar time until the EOT is applied.

The Equation of Time

We've incorporated a graph of the Equation of Time into the quilt block design of our sundial, in the form of mountains at the bottom of the design. This allows users of the sundial to find a correction for any day of the year, a specific number of minutes to be added to or subtracted from the sundial reading to find a close approximation to civil clock time.

Notice that the graph on the sundial has the months of the year labeled along the bottom and the correction minutes labeled along the left side, so each block in the graph is one month wide and 5 minutes high. The wavy line that is the top of the mountains represents the Equation of Time.

To determine the current clock time simply look for the current date along the bottom of the sundial and find the correction for that date, indicated by the height of the mountain at that point. Then look for the 0 line to see if the graph dips below or rises above the line, and add or subtract the correction from the sundial reading as appropriate. For example, suppose it's December 15 and you want to know the current clock time. Looking at the Equation of Time graph you find that the correction for that date is -5, so just subtract 5 minutes from your sundial reading. In this case the sundial should indicate 12:00 at about 11:55 clock time.

The greatest differences between solar time and clock time occur in early February, when sundials are about 14 minutes slow, and in late October/early November when sundials are about 16 minutes fast. But from the end of March until mid September the difference is never more than 6 minutes. And on four days of the year, April 16, June 14, Sept. 2, and Dec. 25, the difference is zero.

Those who frequently visit the sundial may enjoy noticing and watching, over the course of time, this annual cycle of variations in the Sun's apparent motions.

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