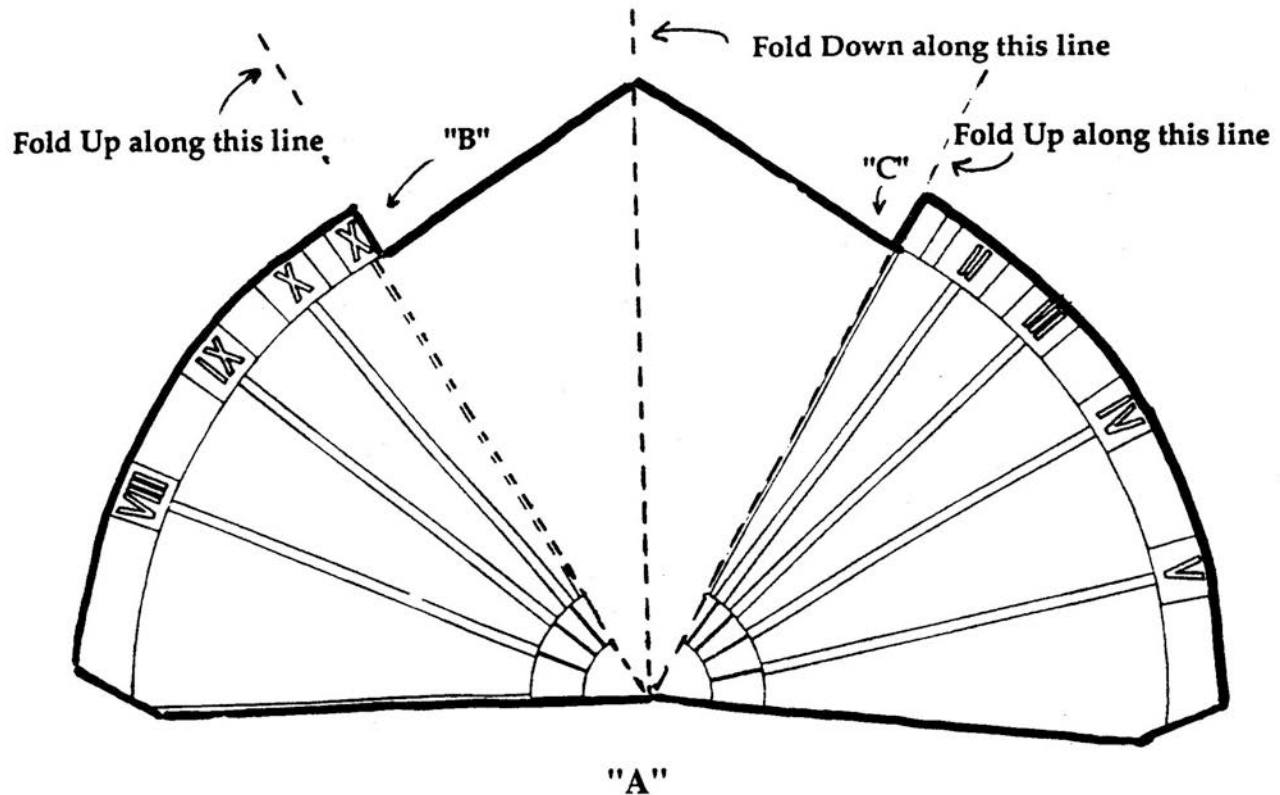


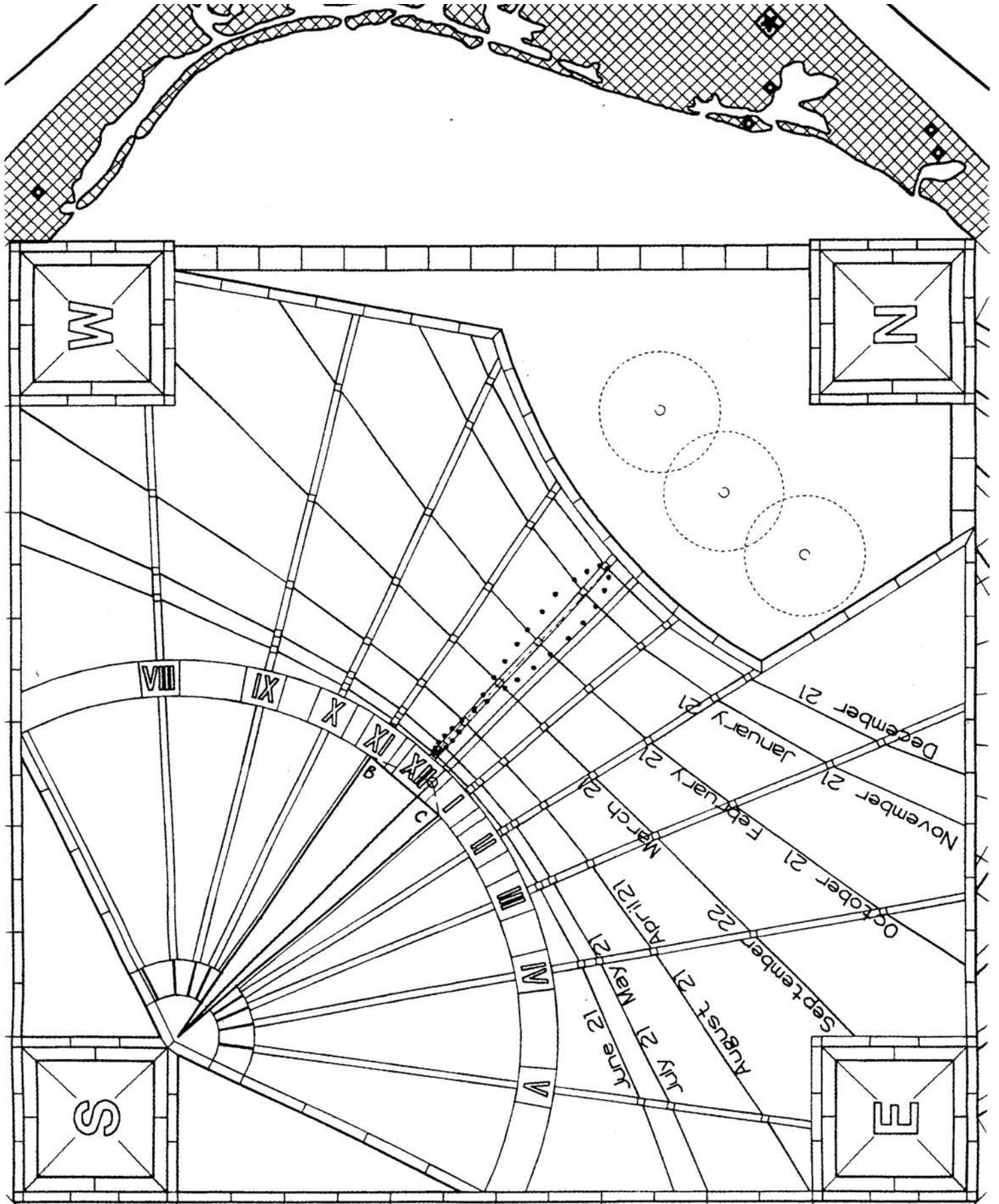
DIRECTIONS:

A SUNDIAL for HOUSTON

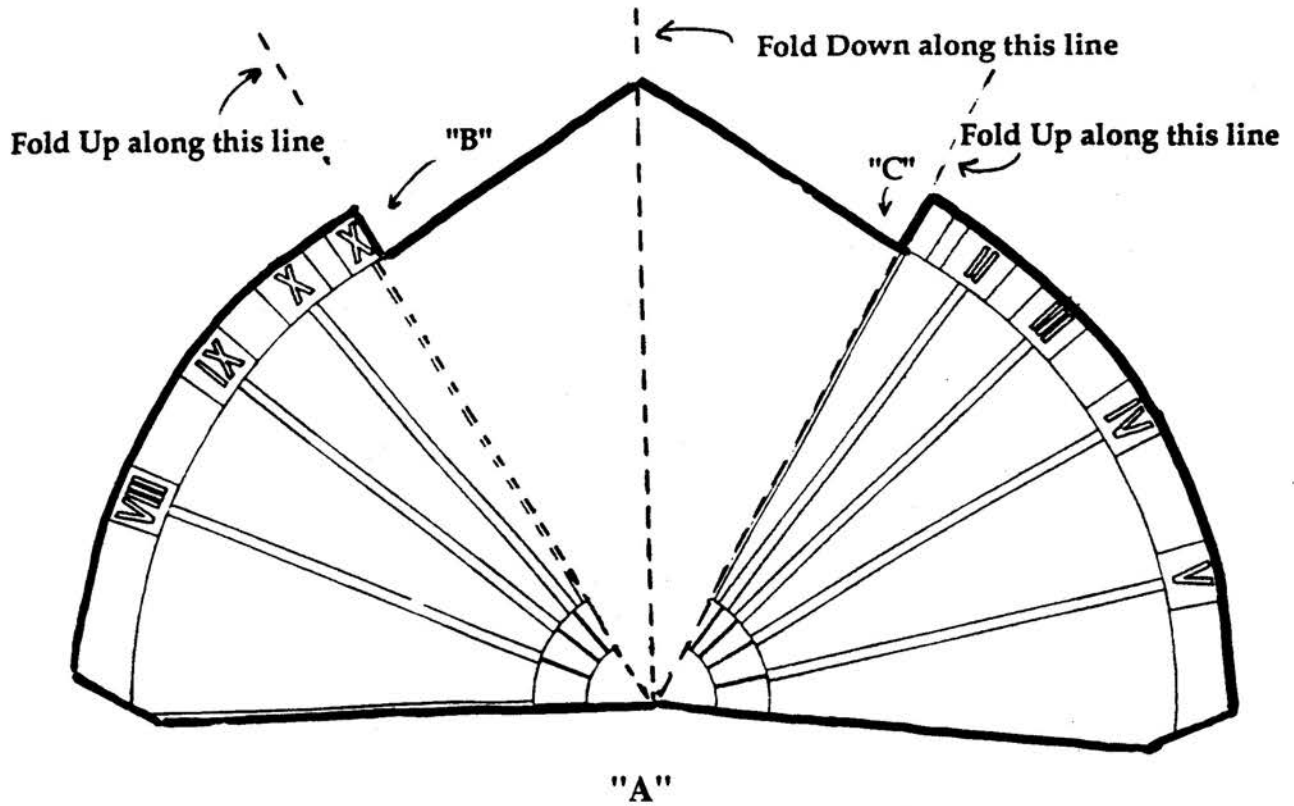


1. Carefully cut out the gnomon (this page) following the outermost heavy lines *only*. Makes a "half-pie".
2. Fold the "half-pie" in half along the *center* dashed line, leaving the side with the diagrams and hour lines on it toward the *outside*.
3. Fold the two wings back *up*, along the other two dashed lines. The gnomon (center section) should pop *up*, and the wings with hour lines on them become flat. All folds start at point "A".
4. Adjust the folded gnomon so that the hour lines on the wings exactly match the hour lines on the plaza card. The point where the three folds meet (point "A") should be placed at the center of the fan near the box marked "S". The Corners "B" and "C" should match corners "B" and "C" on the plaza.
5. Tape or glue into place. Your sundial is done!
6. To use: Lay the sundial on a flat place with the line from "S" to "N" pointing exactly to the North. The shadow of the gnomon (the part jutting up) will cross from West to East in the course of a day, crossing the radial lines each hour ("IX" corresponds to 9 am Central Standard Time, "X" to 10 am, "I" to 1 pm, etc.) Solar noon is when the shadow crosses the N-S line (the 21 minutes different from Central Standard noon is because Houston is west of the center of the Central Time Zone). Dates and times marked on the dial are good for anywhere in the Houston area.
7. The *day* of the year can be noted by seeing the *length* of the shadow - the longest shadows correspond to December 21, and the shortest shadows correspond to June 21. The shadow track over the course of a day is a curve, marked one day for each month. On the equinoxes, the shadow path is a straight line from W to E.

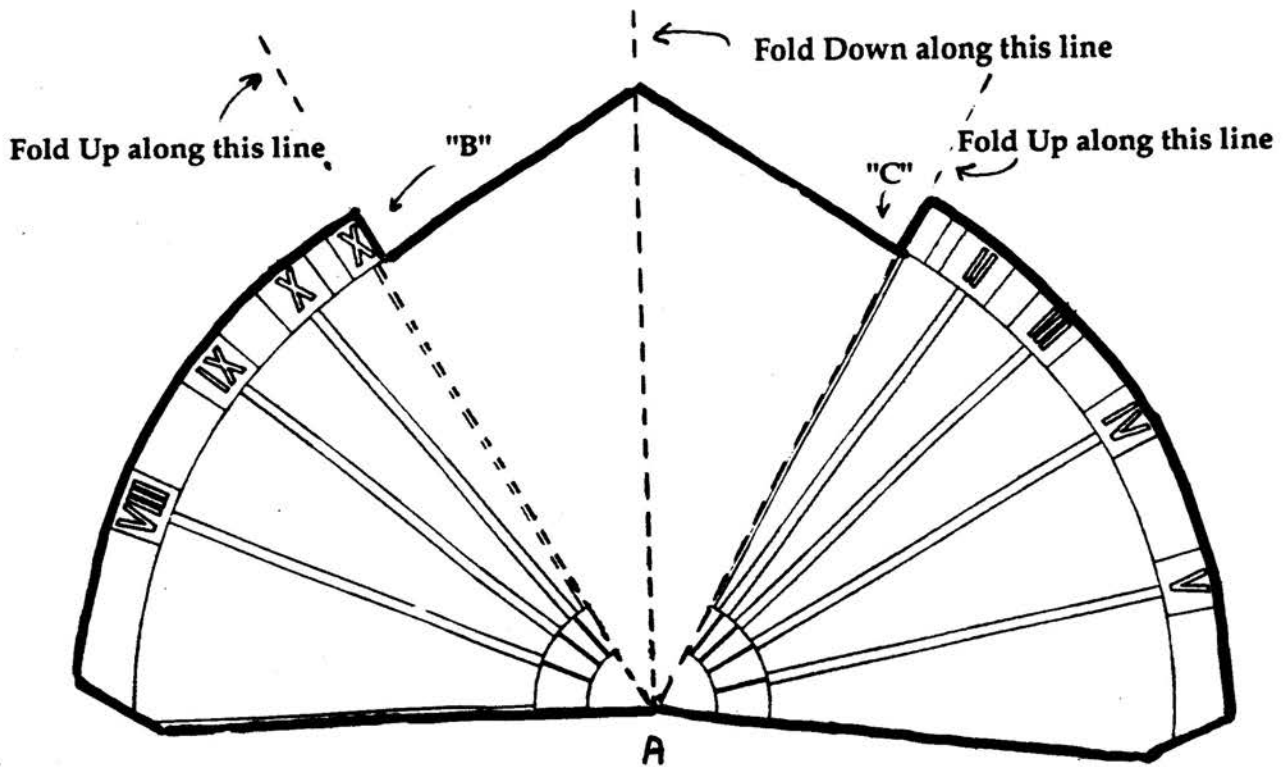
BLUEPRINT OF THE PLAZA OF THE HOUSTON MUSEUM OF NATURAL SCIENCES
COPYRIGHT HOOVER AND FURR ARCHITECTS, HOUSTON (USED WITH PERMISSION).



A SUNDIAL for HOUSTON



A SUNDIAL for HOUSTON



Use this page to make multiple tops, for classroom use.