

The *Dreispietz* is sundial and compass in one. We can determine the time and the north direction as well. This compass function, however, depends sensitively on the geographic latitude. It works well only for places with a geographic latitude like that of København, from Kilmarnock to Nizhneangarsk (ideally for 55.7°). When you know the north, the clock works well between 48° and 63° latitude.

The lines that cross the hat show the orbit of the shadow for the indicated date. On the latitude of København we find the east-west direction by turning the hat until the shadow of its top falls onto the correct line of date. In other places, one must find this direction by other means. The time is read off the marks on the line of date, taking that crossing of the hour loops that corresponds to the date.

How to proceed: The model should be cut out neatly. Fold it first along the dashed lines outward. In the next step, fold along the pointed lines inward. Now you can compose the hat. The incomplete segment is placed below the opposite segment. In doing this, a pyramid rises from center. It is like the top of an obelisk. Fold the lines again such that the paper remains without stress.



2. Juli 2003

The variation of solar time against the legal time is already accounted in the loop. The time that is read off the sundial has only a fixed offset because the longitude of København differs from 15° E. The sundial is late in København 10 min (in Kilmarnock 18 min, in Klaipeda 35 min, in Moskva 30 min, in Nizhneangarsk 42 min, in Nemuy 55 min).