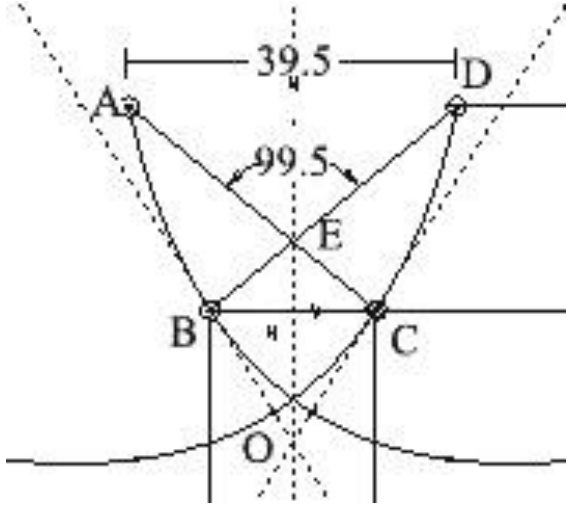
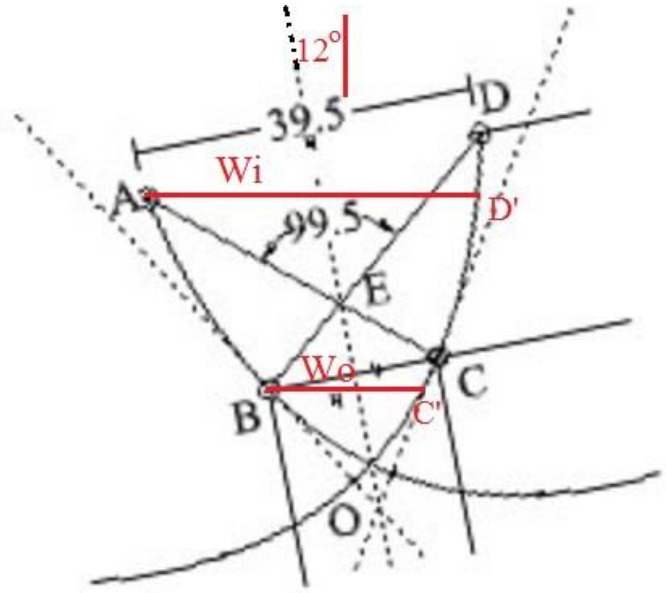




The 32 degrees ½ acceptance angle truncated CPC (Rapaka Oct. 2006 p22) is inclined about 12 degrees south towards the equator for the Auroville area latitude location. The CPC trough is inclined similar as the solar bowl.

The horizontal line from B on the left parabola segment to C' on the right parabola segment is Wo (CPC width outlet).

The horizontal line from A on the left parabola segment to D' on the right parabola segment is Wi (CPC width inlet).

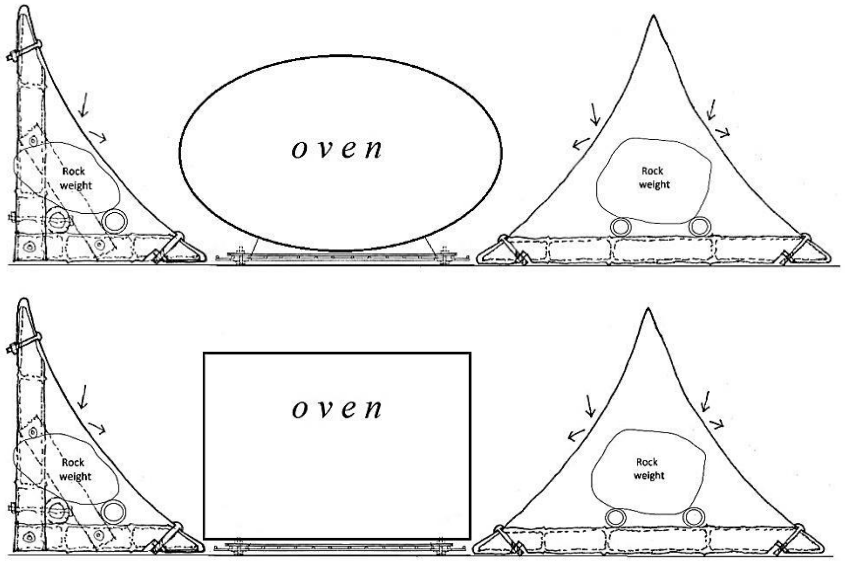
An asymmetric truncated CPC is defined for about 12 degrees locations.

( ) Rapaka, E. V. K., Report No.3: Study on the optical and thermal properties of a compound parabolic concentrator with and without end-wall reflectors for Pondicherry region, Oct. 9, 2006, Department of Mechanical Engineering, Pondicherry Engineering College, Pillaichavady, Pondicherry, INDIA.

CPC expert solar engineers may advise differently, however the differences are likely to be small angular differences, and the presented preliminary CPC characterization is sufficient for preliminary design of reflector facets and bamboo structure.

Thru-Reflector-Wall (TRW) Nonimaging concentrator solar kitchen studies

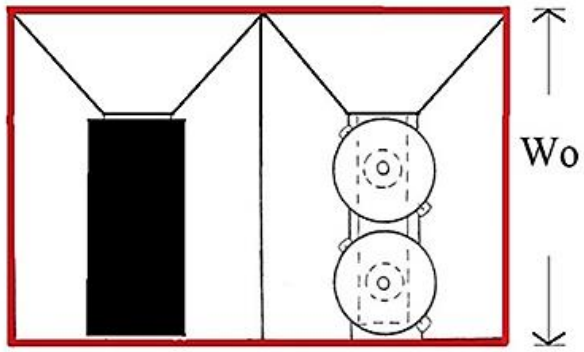
Joel H. Goodman Sept. 29, 2021



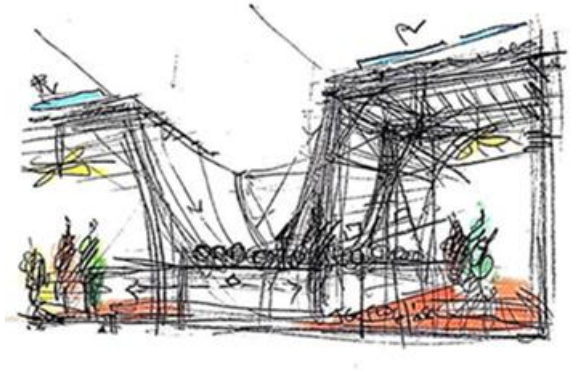
Cookware:

Enameled steel black pots would work. They are industrialized products, perhaps difficult to acquire.

A locally fabricated oven of sheet metal painted black (selective surface e.g. Solkote TM) could work for baking.



Target Rectangle (TR) with oven shape options



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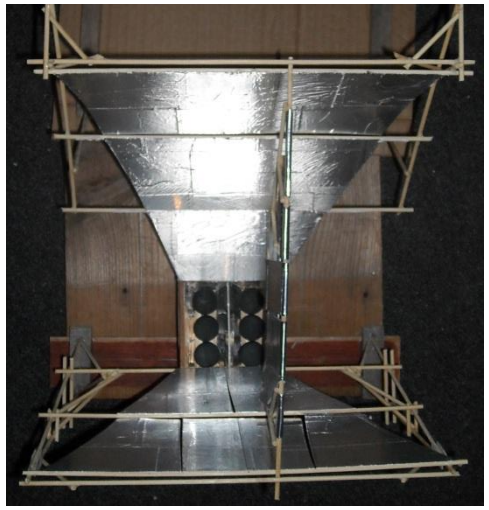
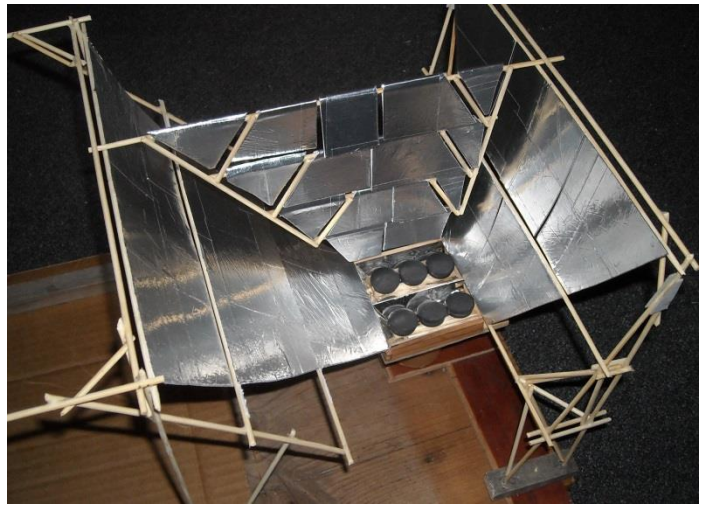
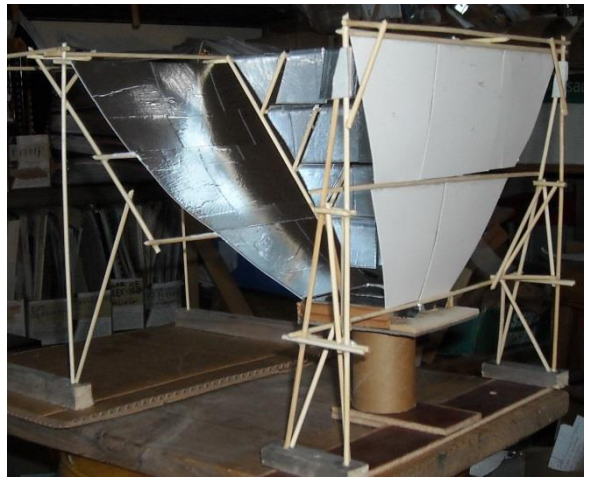
Joel H. Goodman Sept. 29, 2021

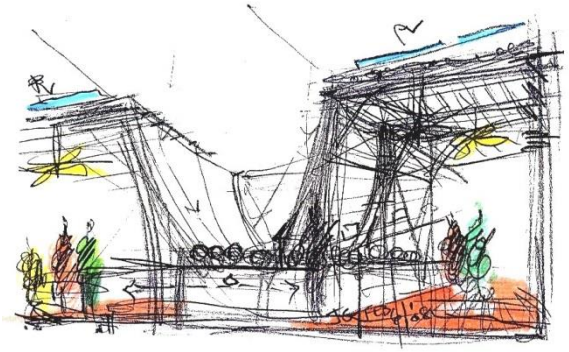




Bamboo CPC open-air solar cookers kitchen

Sketch model photos





Thru-Reflector-Wall (TRW) Nonimaging concentrator solar kitchen studies

Joel H. Goodman Sept. 27, 2021