

LOVV TECH STRATECIES

SEASONAL SOLAR ACCESS



Dome structural design blocks high-angle summer sun when it is hotter, and permits lower-angle sun in spring, autumn, and winter when it is cooler. Glazed Dome induces greenhouse effect to generate heat, taking advantage of the high solar radiation levels on site. Glazed panels are removed during summer months when greenhouse effect is not desired and reinstalled in autumn when temperatures begin to drop.

THERMAL MASS & LAG



Thermal mass walls of superadobe construction store heat during the day. Thermal lag allows it to naturally be released later in the evening when it is needed most.

INDUCED GREENHOUSE EFFECT

OPTIONAL PHOTOVOLTAICS DOME

STACK EFFECT



Pods are designed to induce stack effect to generate desired air movement. In winter, heated air from the dome enters during the day. In summer, mild air from outside enters during the night.

SUPER-INSULATED PODS



Earth-sheltered and sunken below grade, each pod makes use of stable soil temperatures, high performance insulation, and ETFE glazing to minimize heat loss in spring / summer / autumn and heat gain in summer, stabilizing interior temperatures.

ADDED HUMIDITY



In the driest and coldest times of year, an interior geothermal pool and evaportranspiration of plants from the interior garden add humidity. During summer, the pool is filled with cool waters creating an evaporative cooling effect.