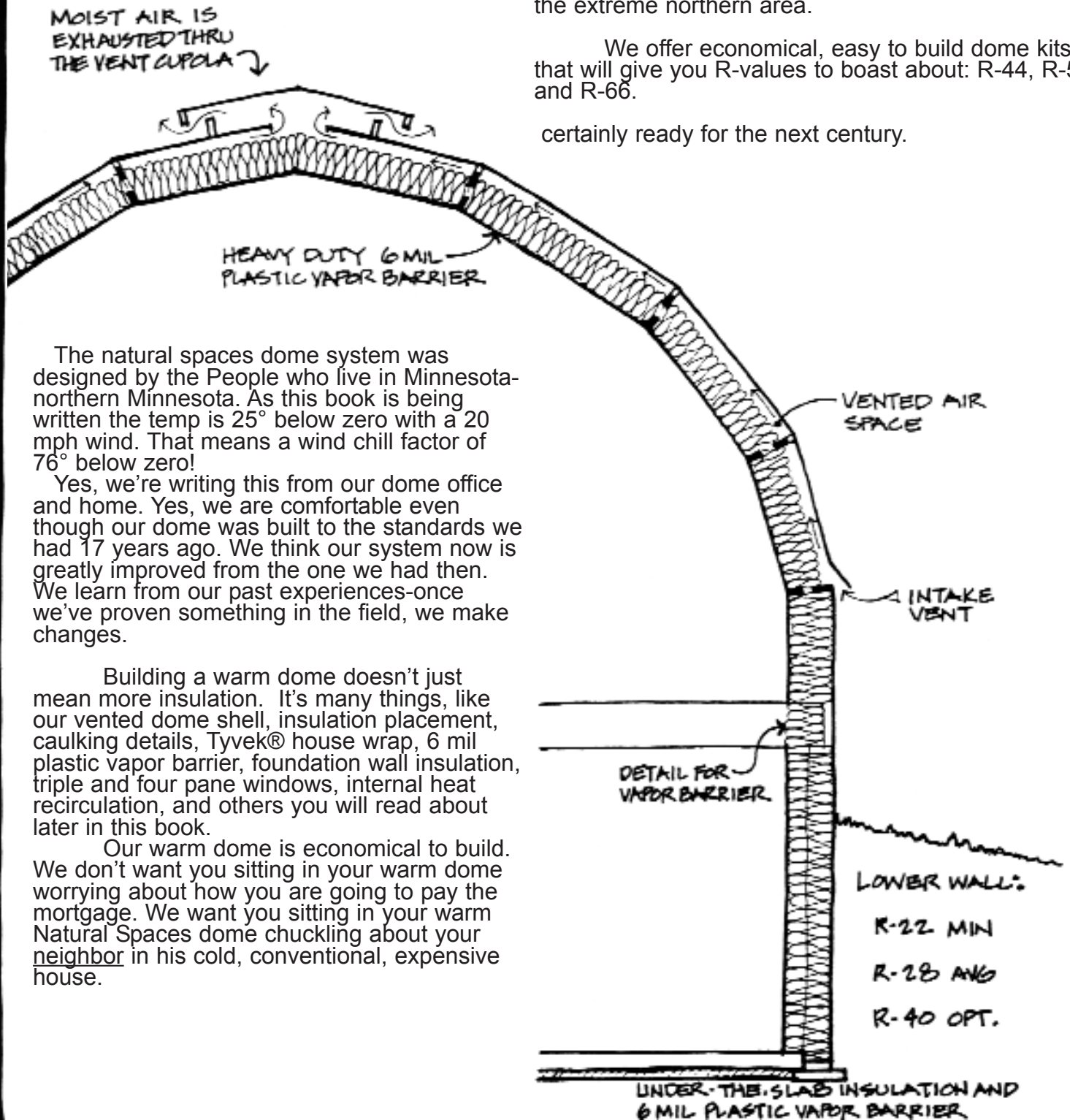


# wintertime warmth

Building codes require certain insulation values, called R-values, for the walls and roof. These are not the ideal or the maximum R-value-it is the minimum R-value. In 1974 they were saying your roof should have 6" of insulation with an R-19. Currently, codes call for a minimum R-30 IN THE FAR SOUTH, R-38 IN THE CENTRAL AND northern states, R-49 in the extreme northern area.

We offer economical, easy to build dome kits that will give you R-values to boast about: R-44, R-55, and R-66.

certainly ready for the next century.



The natural spaces dome system was designed by the People who live in Minnesota-northern Minnesota. As this book is being written the temp is 25° below zero with a 20 mph wind. That means a wind chill factor of 76° below zero!

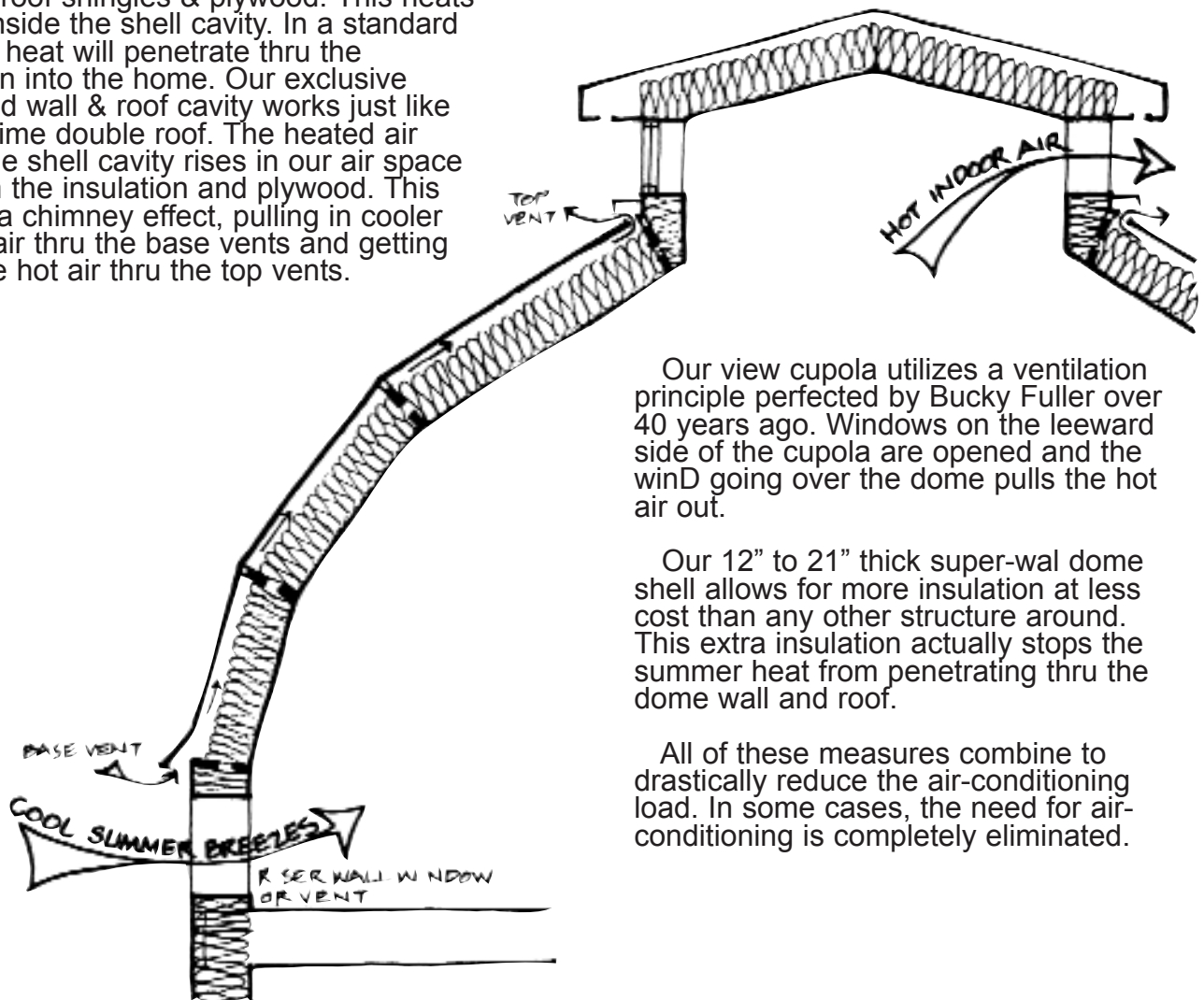
Yes, we're writing this from our dome office and home. Yes, we are comfortable even though our dome was built to the standards we had 17 years ago. We think our system now is greatly improved from the one we had then. We learn from our past experiences-once we've proven something in the field, we make changes.

Building a warm dome doesn't just mean more insulation. It's many things, like our vented dome shell, insulation placement, caulking details, Tyvek® house wrap, 6 mil plastic vapor barrier, foundation wall insulation, triple and four pane windows, internal heat recirculation, and others you will read about later in this book.

Our warm dome is economical to build. We don't want you sitting in your warm dome worrying about how you are going to pay the mortgage. We want you sitting in your warm Natural Spaces dome chuckling about your neighbor in his cold, conventional, expensive house.

# summertime cooling

In the summer, the sun's heat radiates thru the roof shingles & plywood. This heats the air inside the shell cavity. In a standard roof this heat will penetrate thru the insulation into the home. Our exclusive ventilated wall & roof cavity works just like the old-time double roof. The heated air inside the shell cavity rises in our air space between the insulation and plywood. This creates a chimney effect, pulling in cooler ground air thru the base vents and getting rid of the hot air thru the top vents.



Our view cupola utilizes a ventilation principle perfected by Bucky Fuller over 40 years ago. Windows on the leeward side of the cupola are opened and the wind going over the dome pulls the hot air out.

Our 12" to 21" thick super-wall dome shell allows for more insulation at less cost than any other structure around. This extra insulation actually stops the summer heat from penetrating thru the dome wall and roof.

All of these measures combine to drastically reduce the air-conditioning load. In some cases, the need for air-conditioning is completely eliminated.

If you are in a climate or site that does need air-conditioning, our view cupola with windows makes for an easy installation of a window type air-conditioner. Because of our super-insulation and the idea that cool air drops, it's amazing what a 5,000-10,000 BTU unit will accomplish.

Open stairways, open lofts, return air ducts, reversible ceiling fans, brick fireplace mass and other similar features contribute to making the air-conditioner work effectively and efficiently.

