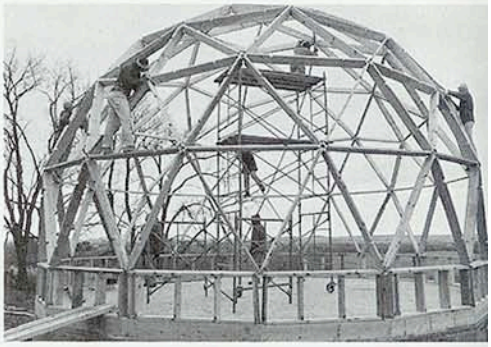

(Top) Domebuilders are silhouetted against a cloudy, early morning sky as they erect the geodesic frame.

Family and friends (including the dog) surround Doug and Cindy and pose for a photo upon completion of the framework. Everyone stopped to autograph the final beam before it was fitted into place.

(Center photo) The geodesic dome is basically a set of interlocking triangles. Pre-cut sheeting and insulation are next. Windows can go anywhere you want them.
(Right) The whole house was delivered to the site in a couple of pick-up truck loads.

Home Sweet Dome

Photos by John Kapparos

Doug and Cindy Foster wanted to build their home among the rolling hills and beautifully textured farm fields of Sherrill, Iowa. But, in these days of inflation, high building costs and high interest rates, people argued that this isn't the time to build. Doug asked himself, "Then when will the right time be?" He felt that the time was now, and he had a plan.

Doug Foster is an engineer by profession at the John Deere Dubuque Works Perishable Tools Department. Wife Cindy is the daughter of Chuck Selensky, supervisor of order processing. Doug and father-in-law Chuck put their heads and muscle together on one chilly autumn weekend and with the help of friends and family members raised the frame on Doug's and Cindy's dream house, the product of many hours of research, do-it-yourself design elements, and an actual build-it-yourself house kit. It's a geodesic dome—a bubble-like structure made up of interlocking triangular shapes and the original invention of 20th Century American genius Buckminster Fuller. It was Fuller's idea that the geodesic shape is the most logical structural design for efficient use of materials and energy. In fact, to build a dome home with the comparable square footage of a conventionally-styled home requires two-thirds less materials.

"There is 40% less exterior surface with 80% more cubic volume inside the house," says Doug with authority. "This means less heat loss—40% less than in a conventional home to be exact."

Doug and Cindy designed their own floor plan in conjunction with plans provided by a local dome-home dealer, Sheston Domes of Dubuque, Iowa. "We took a look at other dome homes in the area which helped us plan our own living area," says Doug. Erecting the dome was a picture of simplicity, according to father-in-law Chuck Selensky. "We brought most of the structural pieces to the building site in a couple of pick-up loads," says Chuck. "Friends and family members pitched in, and we got the main framework up in a single day." Some of Doug's friends—Bill and Steve Sheston (the people who sold the dome to Doug), Steve Spoerre (a Deere employee), brothers Bruce and Gary Spoerre—began fitting the pre-cut color-coded pieces together, and the house began to take shape in a matter of hours. Windows virtually pop in anywhere you want them. They're triangular in design and can be arranged in a grouping wherever you want a nice view. Outside sheeting and insulation are also pre-cut to fit in the triangular spaces.

When the home is completed it will have three levels—a main floor, a loft, a basement, and Doug will add a garage on which solar panels will be mounted. Doug's house will be solar heated with a conventional gas furnace as back-up. Not only is their home cost efficient to build, but it will be energy efficient to run.

Here are some statistics on Doug's dome: The dome itself is 33 feet in diameter and represents 1600 square feet of living area. The basement, fruit cellar, and foyer entryway add 651 square feet bringing us to a total of 2251 square feet of total living space. *TRACKS* will follow the progress of Doug and Cindy Foster's dome home, and in a future issue feature photos on the completed interior and exterior.