# Geometry Lesson

Someday, high school kids will be studying this remodeled great room. The owner, a San Francisco high school geometry teacher, was so taken with architect Ed Kaplan's renovation plan, he included it in a geometry textbook he was writing.

Kaplan's problem was to add five feet to the space, emphasize ocean views, and rearrange the room into a comfortable gathering place plus art gallery. He found the extra five feet he needed in the adjoining wood deck, which was structurally reinforced and enclosed with water-resistant sidelights and French doors that open to the impressive western view.

Rearranging the space, however, turned out to be the trickier part of his assignment. A major dilemma (but also the best geometry problem) occurred because the client wanted the fireplace to be in the center of an interior wall, but the flue had to reach the exterior wall without extending above the first floor ceiling. "We took the maximum angle that the flue transition could make," explained Kaplan, "and that determined the distance from the exterior wall that the fireplace could be." Kaplan disguised the lopsided situation with floor-to-ceiling display cases that establish vertical balance and provide room for art objects.

Another quandary led to a dropped soffit made of the same vertical-grain Douglas fir used on the built-ins. The soffit was intended to conceal new heating ducts along one wall of the space. But Kaplan figured that running the soffit around three walls would establish a strong visual tie among the room's living, dining, and kitchen areas. Steamed beech floors and muted lighting temper the room's angular lines.—*Shelley D. Hutchins*

**Builder: van der Sterre Construction, San Francisco; Architect: Edward S. Kaplan Architects, San Francisco; Room size: 900 square feet; Photographer: Mark Trousdale. ■ Resources: Counters: Galaxy Granite, Circle 195; Doors and windows: Marvin, Circle 196; Fireplace: Majestic, Circle 197.**