



Exposed oak timbers support many areas of this multi-part residence. Timber columns range from 6X6 at the summer living room (shown above) to 10X10 at the tower (shown below). Oak timber beams range in size from 4X10 to 6X14, as dictated by the structural demands. Most ceilings follow the profile of the roof, and there are open spaces between floors and many locations. This challenging geometry was met by a variety of lateral force resisting systems (see sidebar) as required to fit the architectural intent. Many custom connectors were designed and detailed because no off-the-shelf product existed for the desired geometry.



### Caperton Residence

**Location:** Shepherdstown,  
West Virginia

**Architect:** Fernau + Hartman,  
from Berkeley, California

**Completion Date:** 1998

**Area:** 2,600 ft<sup>2</sup> main house  
connected to 1,600 ft<sup>2</sup>  
garage and 1,000 ft<sup>2</sup> play  
room by 8-foot wide  
galleries. Also includes  
independent 900 ft<sup>2</sup> guest  
house, 600 ft<sup>2</sup> summer  
living room, and 700 ft<sup>2</sup>  
in-ground swimming pool.

**Lateral System:** Four steel  
moment frames in main  
house; chevron braces  
and rod X-bracing at  
tower; a masonry shear  
wall at the summer living  
room; wood shear walls  
on the remainder.

**Recognition:**

Sensational Work Spaces Ed.  
House Beautiful, Hearst  
Books, 2002

Architectural Review, "House  
Party," Margaret Seal, July  
2000

House Beautiful, "One Man's  
Village," Susan Zevon,  
February 2000

Architecture, "Retooling the  
Shed," Raul A.  
Barreneche, August 1998

Global Architecture Houses  
55: Project 1998, Tokyo,  
Japan, 1998