



As fixtures and fittings are selected they are added into the elevation drawings. Drawing these elements to scale keeps us from making embarrassing mistakes, such as a medicine cabinet in a bathroom that won't open because the spout on the lavatory set the client selected was taller than the height allowed for the backsplash. Drawing all the elements to scale can save us from aesthetic mistakes as well as functional ones. A very talented interior designer we work with tore out and moved a pair of antique wall sconces three times. With antique fixtures or special items of furniture, working from a photo and some measurements, we will draw an object to judge its location and position against a wall or to judge its scale. Is the chandelier going to be too big or is it so small in a space that it will look silly? Drawing a light fixture in an interior elevation can help deciding at what height to hang it.

Drawing fixtures and fittings to scale has become easier to do as many manufacturers now supply graphic catalogues of their products on CD-ROM. These allow a drawing of the product to be imported directly into the design development drawing. As mentioned above we've found this very useful with wall- and ceiling-hung light fixtures, although few lighting manufacturers supply drawings of their fixtures on disc. We usually pinpoint other elements such as electrical switches, outlets, and HVAC wall registers during working drawings. This extra work can save unhappy moments in construction coordination.

In the history of design development there is a cachet afforded to drawing or modeling full-size details. Mies van der Rohe's office built full-size models of the details of exterior curtain walls. For the Ford Foundation building Kevin Roche had an entire conference room constructed and furnished. LeCorbusier, the great twentieth-century French architect, had a 12-foot-tall chalk board on the rear wall of his studio on which he sketched details and building wall sections full scale. During design development we often call in favors from cabinet shops and other suppliers we work with on a regular basis to make us sample cabinet doors or samples of custom-milled running and standing trim. Because the millwork and trim assemblies in our houses are a key factor in determining vertical heights, as well as plan dimensions at openings in walls and at inside and outside corners, it is important to us to determine these profiles and dimensions early in the design development phase. To do this we plot computer drawings of trimmed window and door

**FIGURE 30-3**  
Photo of finished space illustrates the level of detail in millwork development.