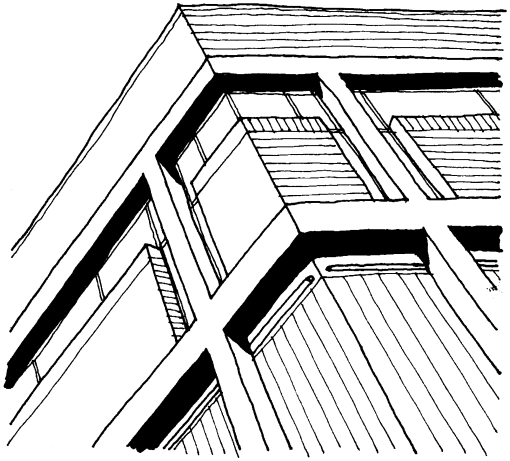

Figure 5.18 *William Whitfield, Geography Building, Sheffield University, 1974.*

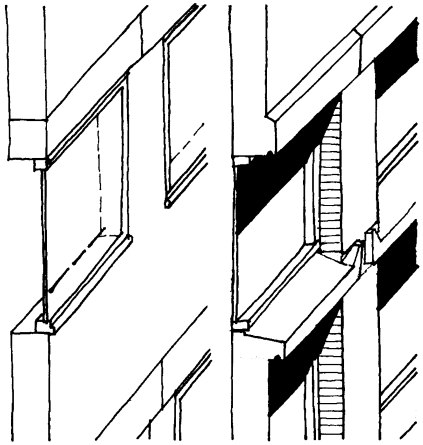

Figure 5.19 *Flush/recessed fenestration.*

or suppression, and how structure interacts with openings within the fabric, can profoundly influence the elevational outcome of buildings. Even within a simple loadbearing masonry wall there are several ways in which window openings may be fashioned and these are determined largely by relationships between the plane of the wall and the plane of the glass. It is possible for the glass to be flush with the external wall so that the elevation reads as a taut plane; this will give generous reveals and cills internally which will reflect light and help to minimise glare. Conversely, should the glass coincide with the internal wall face then deep external reveals will impart a robustness to the façade absent in the former example (**Figure 5.19**). Developing the elevation further, the designer may wish to express cills, lintels, light shelves and external shading devices further to articulate the façade and to provide visual intensity (**Figure 5.20**). Moreover the design of openings may indicate by differentiation, a hierarchy of spaces which they serve, again helping us to 'read' the building.

WALL MEMBRANES

The idea of 'layering' a series of planes to form the wall takes on further meaning when dealing with framed structures whose wall membranes have no structural function other than resisting wind loads. At one level, a structural frame may be totally obscured by a heavy

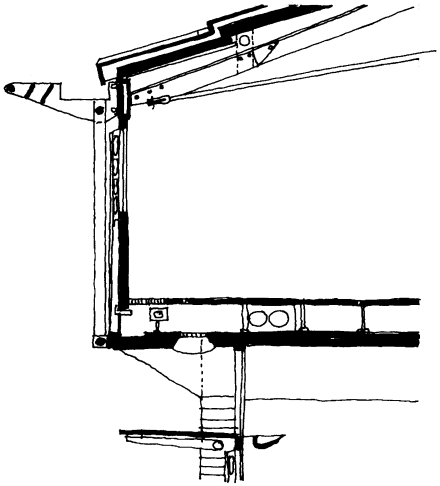

Figure 5.20 *Michael Hopkins and Partners, Inland Revenue Offices, Nottingham, 1995. From* Architectural Review *5/95, p. 36.*

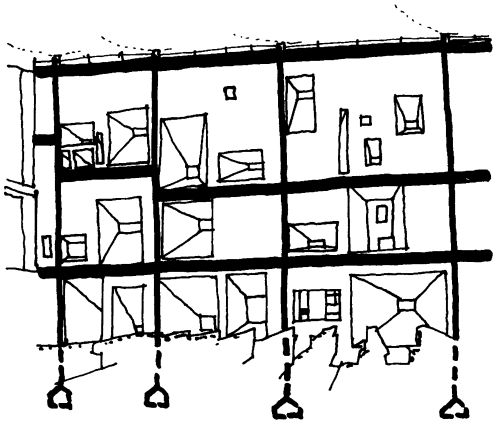

Figure 5.21 *Le Corbusier, Chapel, Ronchamp, France, 1955. Location of columns and beams in wall.*

cladding which looks as if it is loadbearing, suggesting that the designer has had other priorities in fashioning the elevational treatment than straightforward structural expression. This was certainly the case in the chapel at Ronchamp by Le Corbusier where massive rendered walls of rubble completely conceal a reinforced concrete frame which supports the shell-like roof. An apparently random fenestration pattern is ordered not only by the Modulor proportioning device, but also by the requirement to avoid the column positions buried within the wall (**Figure 5.21**).

Clearly, the location of the wall plane in relation to the column is the primary decision when designing the elevations of framed buildings. The wall may oversail the columns which then will be revealed internally, roof and floors cantilevering beyond them to connect with the cladding (**Figure 5.22**). Or the cladding, in the form of a continuous membrane or expressed as a modular system of panels, may connect with but conceal the frame. In the latter case, the panel module will inevitably relate directly to the structural module (**Figure 5.23**).

The simplest method of structural expression of the frame is for the cladding to fill the void between column and beam so that structure and wall share the same plane.

Various devices have been used to express the non-structural nature of such infill like providing a glazed interface between structure