

SERVICES

Consequently, architects seized upon not only the form-making potential of new structural techniques, but also that of mechanical services.

This approach reached its zenith at the Centre Georges Pompidou, Paris, 1977 (**Figure 4.8**), and at the headquarters for Lloyd's of London, 1986 (**Figure 4.9**), both by Richard Rogers, where the conventional central core of services within a flexible space was reversed so that these elements were shifted to the periphery of the building. Furthermore, they were given clear external expression so that lift cars,

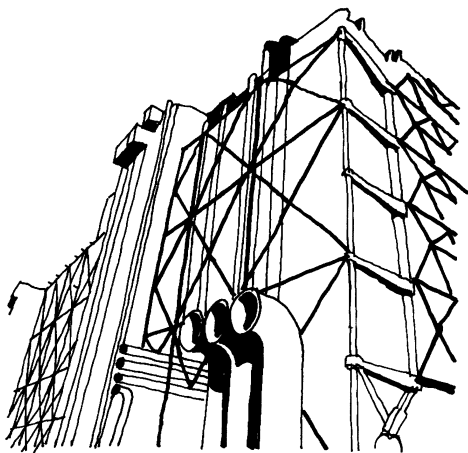


Figure 4.8 Richard Rogers, Centre Georges Pompidou, Paris, 1977.

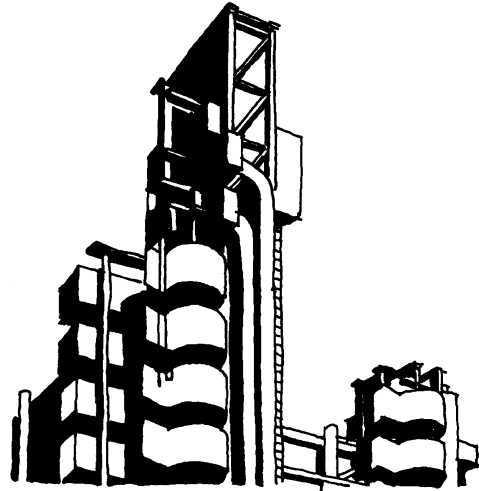


Figure 4.9 Richard Rogers, Lloyd's Building, London, 1986. From Richard Rogers, *Architectural Monographs, Academy*, p. 129.

escalators, and ventilation ducts were displayed as a dramatic image of so-called 'hi-tech' architecture.

But such had not always been the case; progressive nineteenth-century architects, equally concerned with incorporating the benefits of a burgeoning technology within their buildings, felt no compulsion to express such innovation either internally or externally and it was only those architects who did so, however tentatively, that gained any credit as precursors of the modernist cause (**Figure 4.10**). Similarly, architects of so-called post-modern persuasion have also felt little compulsion to allow innovative structure or services to inform an

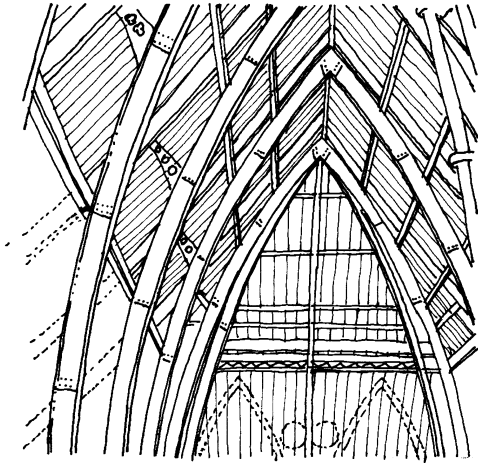


Figure 4.10 Deane and Woodward, *Museum of Natural History*, Oxford, 1861. From Bannister Fletcher, *Architectural Press*, p. 1024.

architectural expression whose origins were quite remote from such considerations (**Figure 4.11**). The honest expression of elements which make up a building exercised architects throughout the twentieth century so that a question of morality has constantly underpinned the modernists' creed, a position joyously abandoned by their post-modern brethren.

HOW WILL IT STAND UP?

Nowhere is this notion of architectural honesty more prevalent than in structural expression. We have seen how architects have sought to

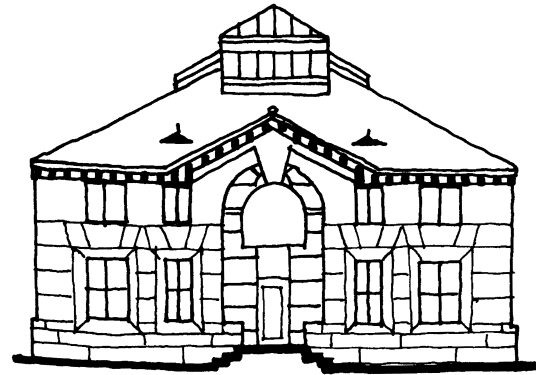


Figure 4.11 Moore, Grover, Harper, *Sammis Hall*, 1981. North elevation. From *Freestyle Classicism*, Jenks, C., A–D, p. 81.

express diagrams of circulation within their buildings or have indicated a functional organisation of volumes through direct formal expression, but designers have also harnessed structure as a principal generator in their form-finding explorations.

Structural expression

The logical conclusion of this pursuit of structural expression is a close correspondence of structure, form and space enclosure. This total interdependence has been a central pursuit of modernists and accounts for their liberal references to such nineteenth-century icons as Dutert's *Galerie des Machines* built for the 1889 Parisian Exposition (**Figure 4.12**), or Freyssinet's airship hangars at Orly, France, 1916 (**Figure 4.13**). Where the architectural