

17. MODEL BUILDING AND COMPUTER GRAPHICS

within the molecular landscape (Taylor *et al.*, 1993). The challenge of bridging across the scales of size and complexity of the molecular world may lead us into the realm of virtual reality. Data from X-ray crystallography are being combined with data from large molecular complexes, characterized by electron microscopy. These data, in turn, can be integrated with those from optical confocal microscopy and other imaging techniques. With structures of molecules,

assemblies and distributions, as well as data on molecular inventories, we can start to piece together integrated pictures of cellular environments, but with full atomic modelling at the base (Fig. 17.2.5.1). Thus, while climbing around inside a protein molecule might not add much in the way of perceptual advantage, navigating through the molecular environment of a cell may prove to be instructive as well as inspirational.

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