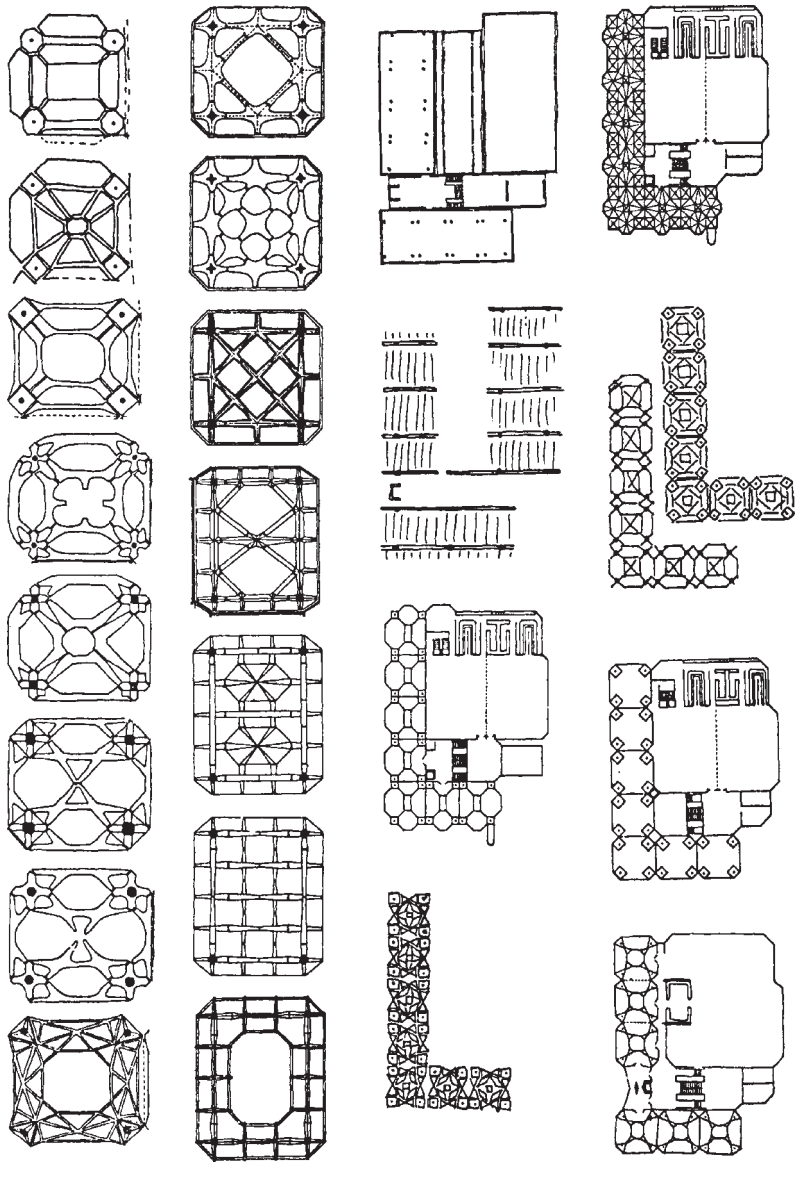

Figure 11.8
Bill Howell called his approach to design 'vertebrate architecture', with the form generated mainly from the structure. This sequence of drawings shows the process operating

The primary generator and crucial constraints

At this point we should examine the importance of the concept of constraints. It may not always be obvious that what is important to a client or a user is not always critical during the design process. In Agabani's (1980) study of the way architectural students perceive design problems one experiment required pairs of students to design a children's nursery. After reading the brief and watching a

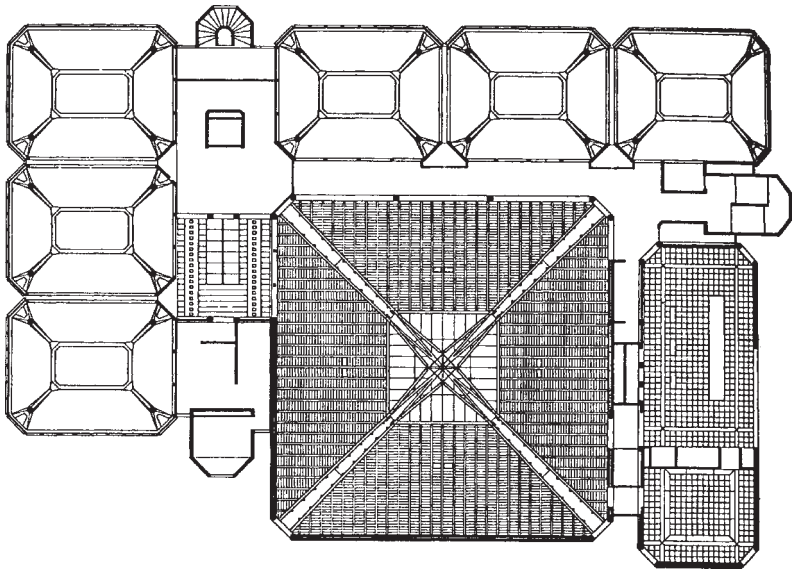

Figure 11.9
The final design of this building by Bill Howell shows the influence of his process

video-recording of the site the students were themselves recorded as they discussed the problem. The very first recorded comment from one pair of subjects was to the effect that: 'the most important thing is that we are going to have children playing outside' (Agabani 1980). Now while playing outside is certainly a requirement for nursery design it hardly seems to be 'the most important thing'. However, the same designer continued: 'so which way round do you put all the playing areas so that they can wander around?' (Agabani 1980). This can now be seen as an assessment not of what is most important to the client or user but what is critical to the designer. In this case, orientation of major spaces towards the protected and sunny side of the site followed by a consideration of vehicular access was quite fundamental in organising the overall form. In this sense these constraints are seen by the designer as crucial in determining form and, therefore, worthy of becoming primary generators. Making sound judgements on such things must surely be a matter of experience and perhaps one of the central skills of good designers.

The life of the primary generator

So far we have seen how both empirical research and the anecdotal evidence gathered from practising designers suggest that the early phases of design are often characterised by what we might call