Essentially then this is a kind of graphical dominoes, where the end product can be as visually fascinating as the playing. Green, however, bent the rules in order to produce a game in which a team had to co-operate to produce a design which had to meet various physical and cost requirements.

This idea was extended into a more realistic game, Gambit, by using special magnetic tiles which represented building elements which could be arranged on a grid to create diagrammatic architecture (Green 1977). These designs could be 'costed' according to simple formulae to evaluate capital cost, heating cost, structural efficiency and so on. The members of the teams played out the various specialist roles to be found in the real world building design team. While this technique is unlikely to produce great architecture it does provide a superb vehicle to explore the group dynamics of these teams. The follow-up discussions show how tensions develop and how teams able to deal with these tensions could outplay teams with those seen as 'highly talented designers'.

This illustrates the message of this chapter, that design is often a collective process in which the rapport between group members can be as significant as their ideas. These ideas had already been demonstrated by Rae who had used highly formalised games with design students at the Hornsey College of Art, not intended to model the design process, but specifically to emphasise the significance of group dynamics and the adoption of either competitive or co-operative roles in group performance (Rae 1969). Of course, students also learned about the building design problems themselves, and were forced by the format of the game to confront their own implicit prejudices about what was important in architecture.

Green also developed games for use at the urban scale. In this case students first studied a complete local area in which they were later to design buildings. Arising from this study the students were able to identify key players in the area such as residents, landowners and employers as well as architects, planners and developers. The game began with a Lego model of the area as it stood and the students, playing the roles already identified, began a process of negotiation to explore the future of the area. The enthusiasm with which architecture students adopted roles of which they were normally highly critical, for example highway engineers, was remarkable, and the result was often a rather heated and protracted argument. It seems highly unlikely that such an in-depth analysis could be achieved by individuals, who

inevitably find it difficult to represent conflicting points of view in their own mind. Green has also suggested that such a game might profitably be played by players from the real world as a way of 'anticipating and neutralising conflicts which in reality are extremely damaging and usually caused by difficulties of communication and understanding of values' (Green 1971). It would be a brave planning authority indeed which took up Green's suggestion!

Peter Ahrends, Richard Burton and Paul Koralek have not only built a reputation as creative architects but seem to have built some deliberate methods of carrying Green's message into practice. Richard Burton tells us how the three partners adopt roles during a design project in order to represent views to the others (Burton et al. 1971):

> At this stage, and in the conventional way, one or two of us begin a relationship with a client and the same participants continue for the scheme's life. We have observed that the member of the group who deals with the client unconsciously represents the client in the group and acts as a sounding board for the others. He also tends to balance the freer movements of the other two. The difficulties for our group stem, at this stage, from a tendency to have premature ideas based on one aspect of an undigested brief. The advantages stem from the lack of total involvement of two members of the group, one of whom is likely to be detached enough to see some twist in the changes of the direction of the inquiry.

Burton goes on enunciate the value of group dynamics in holding creative ideas in perspective.

> At this point, the group has a distinct advantage over the individual, because ideas can become personal property or one's own intellectual territory. The strength of that territory is considerable, and the difficulty of working alone is often in the breaking of the bonds caused by it. With a group the bonds are broken more easily, because the critical faculty is depersonalised.

Some years later Richard Burton was to demonstrate the power of the group in a remarkable process used for the design of his acclaimed St Mary's Hospital on the Isle of Wight. He assembled a group from the three client bodies representing the various health authorities, members of his ABK team and their consultants. During a three-day period of intensive design activity this group agreed the main headings of the brief, identified three basic design strategies and selected one for further development including rough costings (Fig. 14.1). In fact the final scheme as built was essentially a working up of this final idea (Fig. 14.2).