Fig 4. Game 2 for awareness workshop 2

Awareness workshop 3 (Fig.5) tackled the most complicated issue of the project – the overall design of the estate. It is very difficult for end users to associate the tremendous scale of a whole estate with their daily experience on the basis of plans alone. Therefore, game 3 was designed based on a conceptualised construction process, intended to give the participants an understanding of the constructive logic of their future estate. The other issue is to create a chance for participants to experience the transformation from two-dimensional architectural blueprint to three-dimensional conceptual model. This collective learning experience encouraged more conversations about the overall planning design. Through this conceptualised process, the main aim of the game 2 and game 3 was to explain the design concept of their future estate from the Housing Authority.

Fig 5. Game 3 for awareness workshop 3

These games are all designed to help the participants to understand their own problems and formulate their own questions regarding their living environment. It is important to rethink the ability of the users to understand complicated design processes, and to develop such awareness exercises to prepare them to play an active role in the participatory design process. With this type of preparation, users are better able to identify and express their needs of their own accord, which can be a much more efficient and accurate path than attempting to analyse the situation as an outsider. After this new experience, participants are well equipped to share what they learn with other residents and get the negotiated power to perceive and ask for what they want.

3.3. Empowerment games – common language for designer/architect and user

"...Standard components are letters; with those letters, in a particular way, you have to spell out the names of your future house owners." Thus, Le Corbusier explained the intentions behind his design for workers housing in the French town of Pessac. Referring to this declaration in a post-occupancy study of the project, done forty years after its completion, Boudon (1972) wrote: *"This last sentence contains the whole kernel of Le Corbusier's architectural conception for Pessac. One might, of course, be justified in thinking that the future occupants had also subsequently taken the trouble to write their own names in their own ways..."* This comment acknowledges the typical phenomenon of 'design participation by inhabitation', in which users adjust a space to suit their own needs and desires in the course of living in it, in effect 'overwriting' the text laid down by the architect. The idea of participatory design is to attempt to find a way for designer and user to cooperate in a single act of writing, as it were. This requires the initiation of the future users into the process of design and an initiation of the architect into the language of the user.

4. Understanding of design professional practice - an environmental design professor/architect's perspective

Any design process involves a division of roles, responsibilities and knowledge amongst the various stakeholders in the project, such as the designer, the client, government authorities and the eventual users. Designing is a process of communication, negotiation and decision-making amongst these stakeholders. At the core of this process is an attempt to determine what type of environment would be appropriate, achievable and amenable to the end users, for the use for which it is intended. The corollary to this is the devising of spatial, organisational and material strategies for giving built form to fulfil these criteria. As such, the environmental design process is always, at least ostensibly, centred on a dialogue between the designer and the user of the space.

Of course, this dialogue is never a direct and unmediated conversation, except in the rare case of an individual architect designing a space for the personal use of a wealthy client. More typically, the user is represented in the process as a speculative projection by those who commission the project, whether it be a corporation creating a space for its workers, a housing developer building residences based on his analysis of the market or a socialist government constructing spaces to engender living patterns seen as appropriate to the social forms implicit in its political ideology. It is with these self-appointed mediators that the architect or environmental designer will have direct contact, and it is these intermediaries'