

PHYSICAL PLANNING AND COMMUNITY INVOLVEMENT: AN EXPERIMENT IN THE USE OF PARTICIPATION TECHNIQUES IN MANGAUNG, BLOEMFONTEIN

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Die doel van stadsbeplanning is om die lewensgehalte van mense te verbeter. Beplanning fokus dus primêr op mense en is dit dus net logies dat beplanning normatief gebaseer moet word op die aktiewe deelname van diverse groepe in 'n samelewing.

Die Stedelike Stigting, ontwikkelaars van 'n nuwe uitbreiding van die swart dorp MANGAUNG in Bloemfontein, was van mening dat die gemeenskap van MANGAUNG geraadpleeg word in die stadsbeplanningproses alvorens daar met die beplanning van die dorp voortgegaan word.

Die Nasionale Instituut vir Personeelnavorsing van die WNNR is aangestel om prosedures te ontwikkel om hierdie doelwit te verwezenlik. Simulasies en modelle is gebruik om verskeie beplanningalternatiewes vas te stel. Die modelle is uitgestal op verskeie plekke in MANGAUNG waar inwoners normaalweg saamtrek. Respondente is gevra om die modelle te ondersoek en hulle mening daaroor uit te spreek. Hierdie menings is vasgelê op 'n gestruktureerde vraelys.

Die resultate van die studie kan as volg saamgevat word:

Die studie het bewys dat die gemeenskappe suksesvol in die beplanningproses betrek kan word indien toepaslike deelnemingstechnieke gebruik word. Verskeie temas wat houdings en voorkeure van respondente vervat, het na vore gekom in hierdie studie. Die meeste daarvan hou implikasies in vir die ontwerp en implementering van nuwe uitlegte.

Hierdie studie moet in die konteks van MANGAUNG gesien word en is nie normaalweg van toepassing op ander gemeenskappe nie.

1. COMMUNITY PARTICIPATION AND PLANNING

"Members of the public are currently in a position of distinct disadvantage in the decision-making process having neither the financial nor the technical resources of large institutions, central and local government, while having much of positive value to contribute and much to protect and improve." (Clifford, in Built Environment, 1978)

The aim of planning is to improve the quality of people's lives. Whilst planning embraces economic, environmental, technical as well as social and cultural factors, the sole justification for the existence of the planning profession is the pursuit of this aim.

As man is the prime focus of planning, it is only logical that planning should be normative and be based on the active participation of a diversity of groups in society. A mechanism must be implemented which will ensure that the allocation of resources does not take place arbitra-

rily, without cognizance being taken of the needs of all groups within a particular community.

Physical structures and land are there to serve man, but with the town planner's preoccupation with the physical environment this picture has become distorted resulting in an exclusively functional approach being followed.

This functional approach must give way to a normative approach. Town planners are morally obliged to become involved in a process of interaction with groups within a community. This implies that there must be active participation on the part of the community.

Community participation has until now only had symbolic recognition. Programmes to achieve participation are generally so constituted as to minimise the cost and time of local politicians and their staff with respect to the decision making process. Such programmes generally include, exhibitions, public meetings, the dissemination of information through pamphlets and brochures and the use of question-

naires. This should rather be described as an exercise in public relations or publicity and serves very little purpose in the planning process. In practice these programmes make provision only for a flow of information from the planner to the public and hence the latter can only react to what is being prescribed without being afforded an opportunity to contribute and make suggestions as to their perception of appropriate goals for future action.

The planning profession displays a great lack with regard to initiating proposals and mechanisms to establish viable and meaningful public participation. Indeed, the profession is rather inclined to justify the lack of public participation on the grounds that it is time consuming and expensive and as the public does not understand the planning process, it is a waste of time.

The answers to the above are simple:

- (i) the planning process is irrelevant if the divergent needs and preferences of people are not meaningfully taken cognizance of.

- (ii) One of the functions of the planner is to explain to and inform the public as to what the planning process is. To participate effectively one must be informed.
- (iii) Criticism regarding a lack of interest on the part of the community reflects an inability of the planner to understand how a particular community functions.

2. THE USE OF PARTICIPATION TECHNIQUES IN MANGAUNG

As the developers of an extension to the Black town of Mangaung, in Bloemfontein, the Urban Foundation deemed it necessary to elicit a more active participation by the inhabitants in the development.

As a point of departure the Urban Foundation considered it essential to consult and elicit participation on the part of the inhabitants as an integral part of the planning process before the actual drawing-up of plans. With this in view the National Personnel Research Institute of the CSIR was approached to develop procedures to achieve this objective.

Although this article illustrates only one level of involvement namely the design of the township layout, there is no reason why participation techniques should not be used in the formulation of development plans, or in urban renewal schemes.

Implicit in the search for approaches to community participation is the recognition of a new role for the planner, namely as the catalyst in the structuring of group efforts.

3. RATIONALE AND APPLICATION

Layout planning is an area in the domain of urban planners that is seldom opened

to community participation. Formal self help and related procedures require that those to be housed become involved in the construction and sometimes the design of houses, but even in this context the configuration of streets and plots is rarely open to discussion and negotiation. There are, of course, technical criteria and cost constraints that underlie layout plans, and these may impose real limits on any plan, whether developed in consultation with the community or not.

This short paper is an attempt to show that a community can provide useful pre-design input to layout planning.

A range of planning alternatives relating to town layout and housing was drawn up in consultation with planners in Bloemfontein, and a selection of these options was presented, in model form, to a sample of Mangaung residents (Hardie and Hart, 1984).

Simulations and modelling have been demonstrated to be an effective means of involving users as active agents in the design process (De Long, 1976; Hardie, 1980; Lawrence, 1982; Stokols, 1978). Simulations using models are provocative, non-threatening and provide a vehicle for the explanation and development of planning options that may be beyond the experience of a sample of respondents. For the Mangaung experiment, models illustrating a range of street designs and plot configurations were mounted on portable boards, and these were displayed in a variety of public places throughout the township. The exercise was given publicity in the local media, and interested Mangaung residents were invited to examine the models and to express their views on the scenarios presented. The responses were recorded systematically on carefully designed interview schedules. Some 95 respondents were interviewed over a period of two and a half days.

4. SELECTED LAYOUT PLANNING OPTIONS: OPINIONS AND PREFERENCES

Since the discussion is explicitly concerned with pre-design community participation in urban layout planning, the housing options investigated in the original survey

will not be discussed here (see Hardie and Hart, 1984). We thus confine ourselves to issues related to alternative street designs and the location and size of residential plots.

5. ALTERNATIVE STREET DESIGNS

The present town plan of Mangaung is characterised by a limited hierarchy of streets. In the older areas, streets are wide and allow vehicles to move rapidly. In more recent black township developments, the secondary streets are often narrower, and these force vehicular traffic to slow down. Six modelled streets were shown to the respondents (Fig 1a-f). This selection included the familiar wide straight street (1c); a straight street with a barrier to impede motor traffic (1a); a dead-end street with a circle at one end (1b); a curved through street (1d); a street composed of interleading circles connected by narrow roads and footpaths (1e); and a straight street broken into two rectangular courtyards with the houses facing onto the open space (1f).

The respondents were asked to select the street they preferred, and then to give a second choice. They were also asked to select the street in which they would least like to live. All choices had to be qualified by some explanation. It is important to realise that the preferences expressed are relative to the options presented, and cannot be too liberally generalised.

The ubiquitous straight through-street was the first choice of 28% of the respondents, and 25% selected the dead-end street as their first choice. Some 22% of the respondents selected the straight street as the least-liked option, while only 11% placed the dead-end street in this category. Among the remaining options 16% selected (1a) as their first choice, 11% selected (1d), 14% selected (1e) and 6% selected (1f). Option (1e) was the least liked of the modelled streets among some 33% of the sample.

Significantly, although a grid pattern of straight streets is the norm in contemporary Mangaung, the respondents were divided in their acceptance of it, and the respondents suggest a desire for much greater diversity and variation. Specific comments give insight into the perceived negative and positive aspects of each option:

- (la) "This cuts the speed of fast cars". "It's good for kids, but not for cars". "Unusual and has advantages". Negative views included the following: "A driver might not see the barrier". "If you are delivered by taxi, you can't be delivered to the door if the taxi comes in at the wrong end".
- (lb) "No accidents and the street will be quiet". "The children will be safe". "The circle makes the house fronts very beautiful". Opposing comments were: "To get to the next block will take a long way around". "Cars going at high speed will hit the houses at the end".
- (lc) "It allows free movement in both directions". "One can see cars coming from far". Others stated: "This is very monotonous". "An old form". "It is very dangerous, especially for kids".
- (ld) "I like the curve, it breaks the monotony". "It gives a different view and gives variety". Contrasting comments were: "Drivers are careless and with the difficulty of seeing what is coming, they could run into a yard wall".
- (le) "The cars can go through, but will have to do so slowly". "This is unique". "Pedestrians have many ways to go". "Because of the clustering there will be good community communication". Others countered with: "I don't like the closed space, as bad elements might gather there". "This is old-fashioned, it looks like Chaka's kraal".
- (lf) "There'll be less traffic and therefore less danger". "This is something different". "Pedestrians are planned for".

By contrast others said: "The two middle houses are not safe, cars may go into them". "I do not like the houses in the middle, they look like they belong to the Chief or the Induna".

The responses expressed in relation to the various modelled streets reveal an array of attitudes and concerns that were salient among the survey respondents. Many emphasised the need for variety in layout planning, while others seemed quite comfortable with familiar layouts. An awareness of motor traffic was pervasive, and traffic was often seen as a danger to both pedestrians and buildings. Concern with the safety of children was often expressed. In seeking to create a congenial township, planners in Mangaung would do well to recognise the diversity of preference, and the specific issues raised by the body of

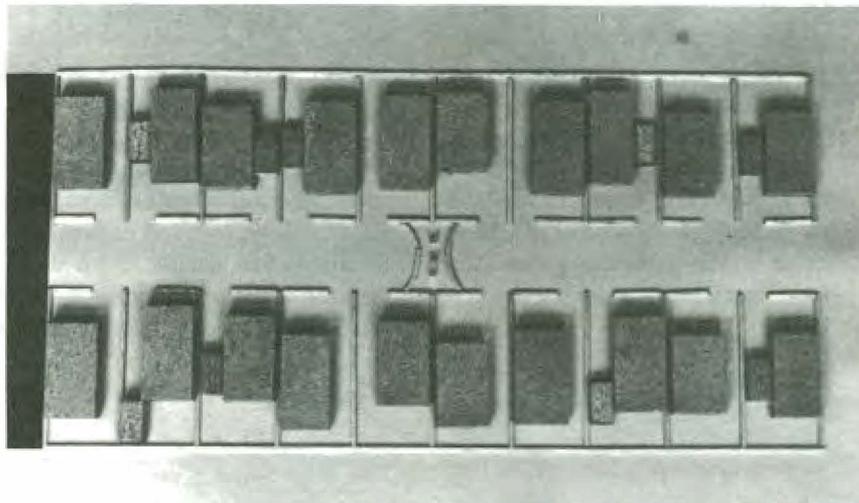


Figure 1a

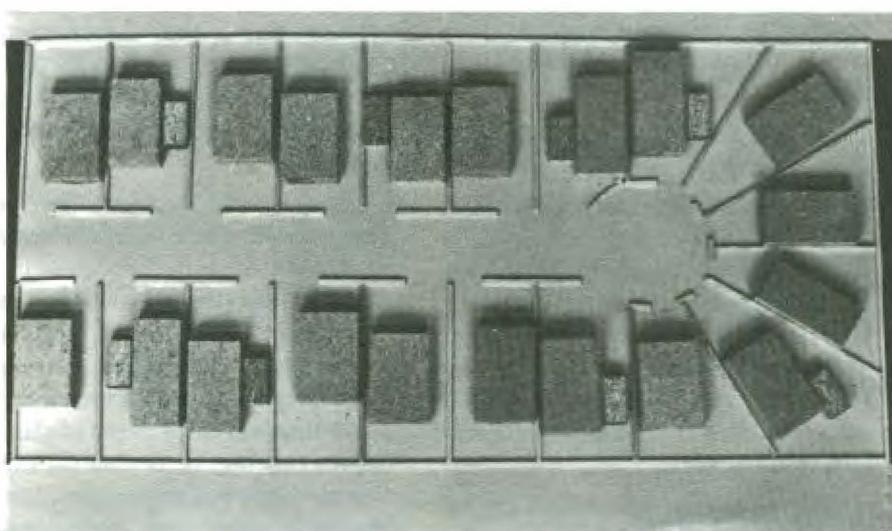


Figure 1b

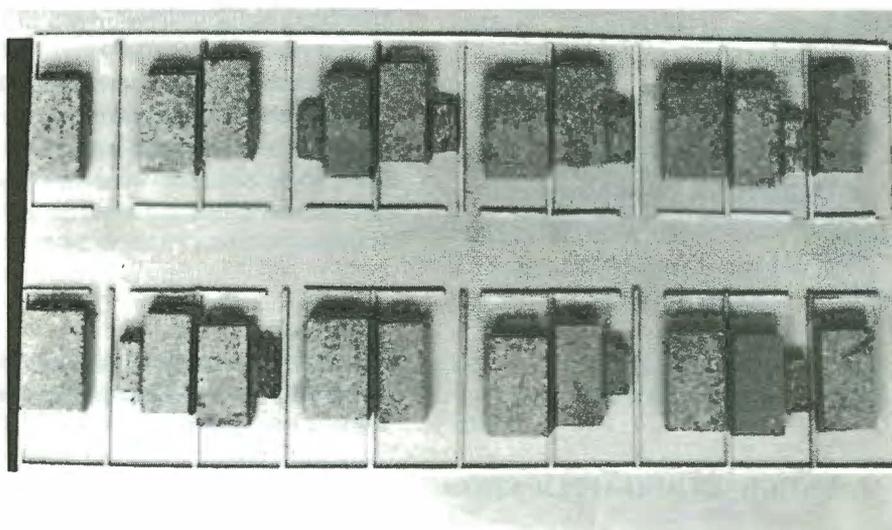


Figure 1c

respondents. It is fairly conventional planning practice today to incorporate a hierarchy of streets in a layout plan, and also to mix through streets and dead-end streets. There are details of popular preferences, however, which are of importance in layout design. Multiple access routes to properties were often stressed by respondents, so it may be desirable to connect dead-end streets to main access routes via footpaths. Vehicular access must not be unduly hampered, but the control of speed would appear to be popularly desired. Of course, a rich diversity of street layouts is irrelevant if residents are not able to select residential locations in the streets they prefer. Diversity without locational choice is somewhat futile.

6. LOCATION OF PLOTS AND DEAD-END STREETS

In order to focus on preferences relating to the location of individual residential plots, respondents were asked to consider two modelled dead-end streets and to select a preferred plot among a series of paired alternatives. The dead-end street scenarios offer the opportunity to investigate a wide range of issues related to the spatial organisation of plot, and some of the findings are pertinent to other street layouts. The paired comparison method (Muller, 1984) is an incisive means of ensuring that all the alternatives in a range of options are considered by respondents. The two dead-end streets differed in that one used a conventional turning circle with plots radiating from the centre in pie-shaped subdivisions, while the second was based on the more conventional rectangular plot layout with pan handle plots at the end of the street (Fig 2 a/b).

At the outset respondents were asked which of the two layouts they preferred. The circle dead-end street was chosen by 60% of the sample, mainly for reasons relating to cars, such as easy turning and the control of traffic. Other comments made mention of the play areas available to children and the possibility of being able to view all of one's neighbours. Among the respondents favouring the pan-handle based street, many emphasised the availability of large rectangular plots. A distinct undercurrent of preference for large plots was also found to underly many individual plot selections.

In the street layout with the circle, the offset plot (2) was rated the best by 51% of the respondents while 31% liked the

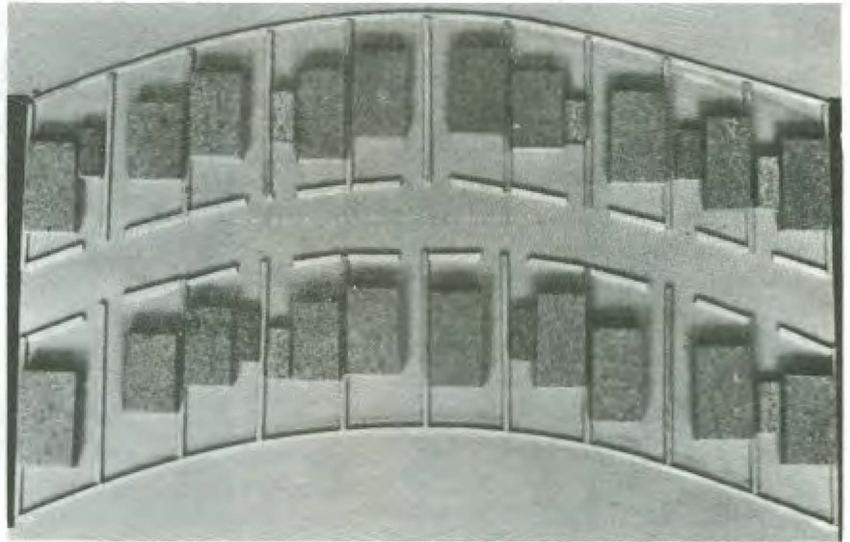


Figure 1d

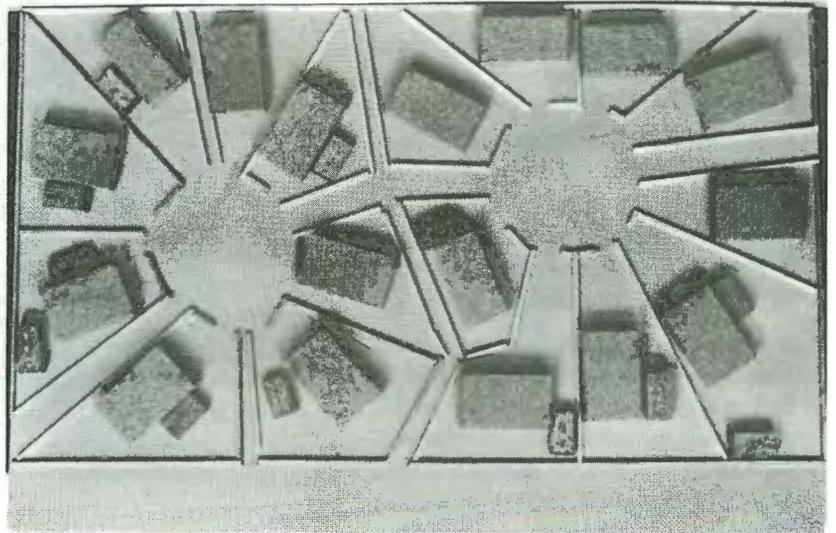


Figure 1e

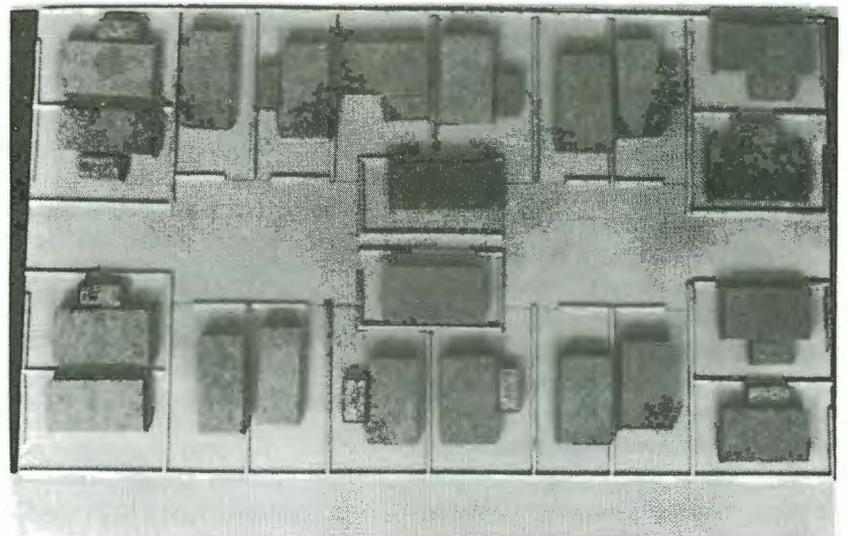


Figure 1f

site at the end of the street or on the corner of the main street (3). Safety was the major reason given by those who preferred the sites around the circle, and access and visibility were mentioned by those opting for the corner sites.

On the pan-handle street, the range of preferences was somewhat more varied, with significant differences between the preferences of men and women. The pan-handle plot itself (2) was preferred by 45% of the men and 86% of the women. Those selected the pan-handle as first option, often stressed its size relative to the other plots in the street. The privacy of the pan-handle plot seemed to appeal to some respondents. By contrast 21% of the men and 5% of the women liked the corner site at the entrance to the dead-end road (4). Reasons given by those preferring the corner site were that it is highly visible and easy to locate. This rationale may express a desire among some males in Mangaung to see, and to be seen by the community at large. Among those rejecting the corner site, an often cited criticism was that it would be dangerous for children, because of the proximity of the main road. The offset plot (3) was selected by only 15% of respondents as the preferred site on the second dead-end street.

In comparing the preferences for the pan-handle site and the site in the same position in the circle layout, the two proved almost equally desirable, with 49% choosing the first and 51% the latter. Thus when compared with a similarly located plot, the pan-handle was not perceived to have qualities that made it *greatly preferable* to a plot with conventional street frontage.

At one level, this investigation shows a slight preference for the circle layout in dead-end streets. When it comes to details of site selection, size of residential plots becomes an important consideration. This underlies the strong votes in favour of the pan-handle in the context of the second dead-end street plan. Size was not the only criterion for the selection of the preferred sites however, since the pan-handle was a little less popular than the equivalent site in the circle layout. Beyond size, there was a spread of preferences among the respondents with all the plots considered desirable by particular members of the sample group. Safety and visibility, privacy and access were all important, in different combinations, to the respondents consulted. This again raises the issue of variety. The greater the variety of site types, the greater will be the level of satisfac-

tion with regard to the settlement layout, given that community members have access to such variety.

7. CONCLUSION

The investigation reported here serves to establish the principle that communities can be drawn into the predesign phase of urban layout planning, especially if the appropriate participation techniques are used. Several themes emerge from the survey itself, representing attitudes and preferences that are shared by portions of the sample of respondents. Most of these themes have implications that could be translated into design and on-ground implementation.

The opinions and preferences discussed here should be seen in the context of the Mangaung respondents, and are not necessarily transferable to other communities. Of course, it is a waste of time to elicit opinions and preferences anywhere if in

the final implementation of the settlement process participants are unable to exercise locational choice. Our work is but the beginning of meaningful and ongoing community participation in the planning of the Mangaung extension.

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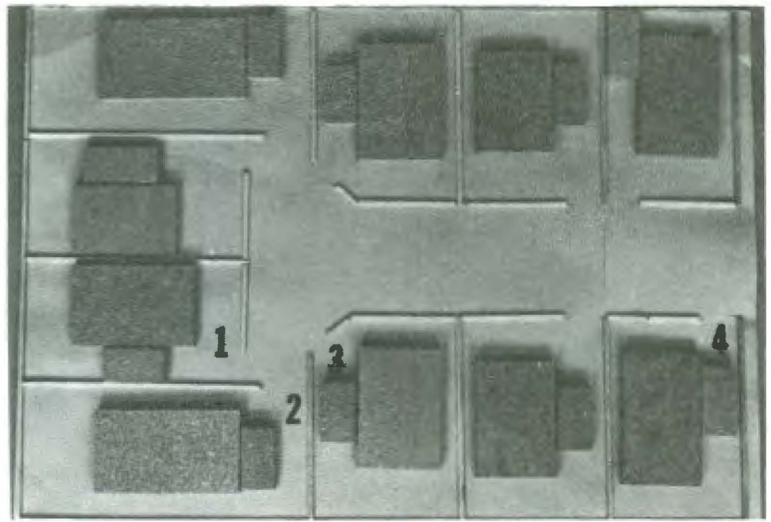


Figure 2a

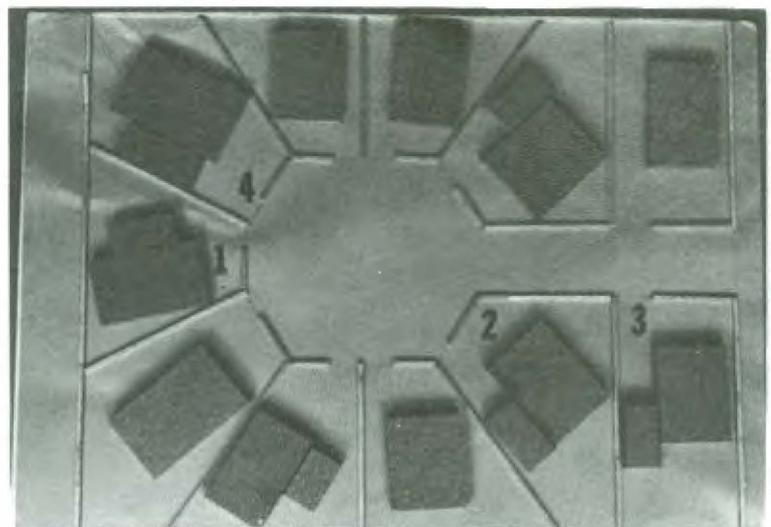


Figure 2b