KFC 80/26

BRIEFING FOR HOSPITAL DESIGN

A Report of two workshops held at the King's Fund Centre

This is an account of two workshops which were held to discuss factors which should be considered when briefing the design team on the planning of a major new health care facility.

The second workshop was arranged to take some of the issues raised in the first workshop, a step further. However the first workshop concentrated on the nature of the factors to be considered in the briefing process, whereas the second workshop looked at when and how these factors might be considered. For this reason the two events have been written up separately.

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REPORT OF THE FIRST WORKSHOP HELD ON 12 OCTOBER 1979

LIST OF PARTICIPANTS

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THE CONTRIBUTION OF ORGANIZATION THEORY

THE CONTRIBUTION OF ENVIRONMENTAL PSYCHOLOGY

WRAPPING IT ALL UP - AN ARCHITECTS' VIEW

THE DISCUSSION - THE MAIN ISSUES ARISING

i) Functional Content vs. External Environment : The Architects' Dilemma

ii) Opportunities to learn from others' mistakes

List of Participants

Ms Jenny Blake	Organizational Consultant
Mr T E Cusdin	Architect
Mr Roger Dixon	M.A.R.U., Polytechnic of North London
Mr John Duke	Architect to Project Team, Wessex RHA
Mr P W Guest	Chief Planning Officer, West Dorset District Council
Miss Christine Hancock	Area Nursing Officer, Camden & Islington AHA (T)
Mr David Hands	Assistant Director, King's Fund Centre
Mr Martin Howlett	Assistant Area Administrator, Dorset AHA
Mrs Rowan Matthews	Building Evaluation Programme Organiser, DHSS
Mr William Miller	Miller & Roth Group Practice
Mr Derek Mowbray	Acting District Administrator, St.Thomas' Health District (T)
Mr Barry Payne	Regional Architect, Wessex Regional Health Authority
Ms Joy Reynolds	Project Assistant (Planning), King's Fund Centre
Mr Steffen Riisager	District Administrator, West Dorset Health Care District
Mr Michael Sweeney	Assistant District Administrator (Planning and Development), West Dorset Health Care District
Mrs Jean Symons	Centre on Environment for the Handicapped
Mr Hugh Thelwall-Jones	Consultant Gynaecologist and Obstetrician, West Dorset Health Care District
Mr C Willson-Pepper	Social Anthropologist, Health Services Division, Crown Agents for Overseas Governments and Administrations
Ms Sue Wright	Social Anthropologist, Bartlett School of Architecture and Planning

PURPOSE OF THE WORKSHOP

Current capital planning methods in the NHS and the formal Capricode procedure tend to concentrate on the 'hard' objectives which can be quantified such as the clinical services to be provided: the internal and external spatial relationships and the economic aspects of construction, operational and manpower costs. However there may well be "softer" factors which may be equally important in influencing the success of a building: the social and cultural background of the people who will use and work in the hospital; the organizational objectives to be achieved by the facility and the organizational design to achieve these objectives; and also the way in which the physical environment is expected to affect behaviour.
How far can and should these sort of considerations be taken into account during the planning, briefing, design and commissioning process ?
The original idea for the workshop came from the West Dorset Health District, where planning is underway on the first phase of the new District General Hospital. Those involved in planning this project agreed to present it as a case study on which to hang discussion of the wider issues.

THE FORMAT FOR THE WORKSHOP

David Hands (Assistant Director) welcomed participants to the King's Fund Centre and explained the purpose of the workshop. Steffen Riisager (District Administrator, West Dorset) then listed what he saw as the main issues, from the point of view of one who is actually involved in planning a DGH. This was followed by presentations from Colin Willson-Pepper, Derek Mowbray and Rowan Matthews on what they felt their own disciplines (Social Anthropology, Organisational Theory, and Environmental Design) could contribute to the capital planning process. Finally, Roger Dixon responded by describing the responsibilities of client and architect and suggesting how the previous contributions fitted into this model. This led on to a general discussion about many points raised during the day.

THE PRESENTATIONS

Steffen Riisager: The Background to the Case Study

Mr Riisager described the background in West Dorset, which had given rise to concern that there were certain factors, which at this stage could be loosely described as sociological, environmental, and organizational, which were not being taken adequately into account in the design of new buildings. He considered this to be true in general, but illustrated it with a local example.

West Dorset is a large rural District,with scattered towns, the largest being approximately 60,000 people. The acute services are provided from many small separate units and it is proposed to centralize these in a District General Hospital of 600 beds in Dorchester, a town of 14,000 inhabitants. Community Hospitals will be provided in each of five other towns.

The medical staff see considerable advantages in centralization,but nonetheless many other uncomfortable thoughts pass through the mind. For example :

- Morale is very high in the small hospitals. The record of many new District General Hospitals has not been very good.
- Patients find the atmosphere of the existing hospitals good.

- How could this new large building fit well into the environment of the small town of Dorchester, or into the "ambience" of Dorset?

- The argument of "big" versus "small". Could the organization and building retain some of the qualities of the existing service ?

-Was the apparent popularity of small maternity units and the unpopularity of large maternity units in part an architectural problem ?

-Was there an equivalent in hospital design to the disaster of high rise flats.

- What sort of atmosphere is desired in a District General Hospital ?

When one looked at the briefs offered to hospital designers, these types of questions were barely touched upon. Can the planners afford to take yet more perspectives into account ? Will the process become too complex to handle ?

Mr Riisager hoped that the workshop might begin to clarify some of these issues and ways in which they could be taken into account.

Colin Willson-Pepper: The Contribution of Social Anthropology

Dr Willson-Pepper started with the premise that health services are organizational networks which cover geographical territories.
The effective functional character of such organizations in vivo is the social one consisting of what the people in question - patients, staff and the community served - think the organization is; and this social reality of what a health service organization is and does in practice differs extensively from the models in terms of which planners now conceive and try to make health services.

This point is much more obvious in developing countries where the sensitive planner will be aware that the social realities - the cultural beliefs and expectations - of the people he is planning for, will not be the same as his own. He therefore tries to visualize the live and effective social reality, or character, which the proposed organization will have, by reference to the society and people - their attitudes, goals, etc. - which gives it this character. And, if he can do that, he can operate the reverse way round, first visualizing the live and effective social reality which will reduce the service's given aims in the setting in question and then deriving the necessary shape of organisation from it - the shape which will have that social character in that society.

In this country, there is a tendency for planners to assume that, because they are planning services for their fellow-countrymen, anticipating the attitudes of staff and consumers is simply a matter of common sense. This is a very dangerous tendency. Planners are professional people and very often the attitudes of the people they are planning for, are very different from their own.

Dr Willson-Pepper stressed that, from the social anthropologists' viewpoint, each society is unique. Therefore, it is not possible to generalize from one society to another. To establish the live and effective character of a given organization (health service or whatever), it is necessary to investigate the society in which the organization is set and which gives it that character. There was some discussion on this point after the session. In a developed country like the U.K., the organizational networks are exceedingly complex and it is often difficult to draw boundaries around the relevant level of 'society'. It was also recognized that in highly mobile communities, such as those in inner city areas, the substance of society like the residents' social constitution may change drastically in the space of thirty years, altering the live and effective social reality there in terms of which a given organization will exist. However, this was not thought to be such a problem in a rural community like West Dorset.

Finally, Dr Willson-Pepper made the point that it was easy to over-estimate the softness of this sort of anthropological information, compared to say, the economic considerations. This was a great mistake. There is nothing so relentless as the social realities. If people did not perceive a service to be fulfilling their needs, they would not use it and in that case it would be a waste of time providing the service in the first place.

Derek Mowbray: The Contribution of Oranizational Theory

The basic premise from which Mr Mowbray started was that organizations exist to overcome the inadequacies of individuals and to meet collectively a set of objectives. He distinguished between primary organizations, where the members identify closely with the goals of the organization, and secondary organizations, where the individuals might not necessarily share the goals and objectives of the organization. There was also a distinction to be drawn between formal organizations which were governed by a well-defined set of rules - such as an out-patients' department - and informal organizations where working patterns are very flexible and spontaneous - such as a planning department. On the whole, the larger an organization, the more likely it is to have formal bureaucratic systems of control. Such impersonal controls tend to be less effective than informal coordination but they are a necessary concomitant of size. Very often the formal controls apply to a secondary organization, where the individuals feel less commitment to the organization.

To apply this thinking to the issue in hand, it is necessary to consider the objectives of the NHS in general and the objectives of the hospital in particular. For instance, the objectives of the hospital are likely to include the provision of accommodation for patients, visitors, caring staff and equipment. Facilities for different activities such as consultation, training, staff leisure etc. are also likely to be required. It is very important that the project team is briefed about the overall objectives, the type of patient and staff groups to be accommodated.

The hospital is a very strange environment for the majority of patients. Mr Mowbray therefore argued that patients need strong, clear directions when they enter hospital, so that they can structure their behaviour easily and appropriately. Of course, the requirements of most patients is likely to change as their state of health changes and this has to be recognized.

The type of organization and accommodation required for staff is likely to vary according to staff group. The speaker argued that professional and semi-professional staff are likely to identify more strongly with the goals of the hospitals than non-professional support staff. They are, therefore, likely to have a lower turnover and in turn, be more knowledgeable than support staff. Maybe this implies that stricter supervision is required for support staff. This point was picked up in the discussion afterwards and it was pointed out that in small cottage hospitals, support staff usually identify very strongly with the hospital and that perhaps the level of commitment was more to do with the size of organization and the proximity to the patient. Maybe new hospitals could be designed to provide a more meaningful work environment to such support staff.

Mr Mowbray stressed the importance of training all staff so they are informed of the objectives of the hospital and can also understand how they fit into the overall organization. It is also important to provide recreational facilities for staff so that they have the opportunities to meet and develop a closer network of relationships within the hospital.

However, the hospital needs to house not only people but also equipment. It is necessary to consider what equipment is required on site ? What are the organizational implications - the proximity to particular services and the

support staff required ? And what are the spatial implications ? What information does the project team require about equipment ?

Rowan Matthews: The Contribution of Environmental Psychology

Environmental Psychology is a young discipline - about ten years old. It seeks to understand the impact of a built environment on human behaviour and feelings. Thus, in Rowan Matthews' words: , a DGH is an enormous hypothesis. It states that if we build certain things, we will achieve certain changes in behaviour. The architectural literature often makes bold statements about user reaction, but formal evaluation is usually very sketchy. In the Health Service, neither the DHSS nor the Capricode Manual have given much guidance on how to evaluate new buildings.

Rowan Matthews therefore ran through a series of examples of projects to evaluate the environmental impact of health service facilities. In each case, the first step had been to establish not only the original objectives of the building, but also the extent to which these objectives had shifted over time. The methods employed in these studies varied considerably.

The Sheffield project was a study of community based units for mentally handicapped children. It had involved four steps :

(i) analysis of documented facts about who was coming into the units: the number of people, their level of dependency, where they came from;

(ii) interviews with "key witnesses", the heads of children's units in the area, for their subjective views on the unity;

(iii) interviews with a small sample of residents living near the new buildings. On the whole, the findings were reassuring, but the interviews did reveal that special architectural furbelows on the building distinguished it from neighbouring buildings and were imbued with a special significance by local residents.

(iv) observations of the way people use the buildings. This revealed the difficulties that mentally handicapped people have in dealing with open plan designs.

Ms Matthews stressed the importance of looking at the nitty-gritty aspects of behaviour.

Other examples included a study carried out by Surrey University which looked at a large sample of acute wards to find out what sort of design worked best for the nurses. The DHSS study at Worcester was trying to ascertain the best type of environment for long-stay, elderly, mentally infirm patients.

In concluding, Rowan Matthews raised some general points about the level of control patients could exercise over their environment, staff commitment and accessibility. Simple design details, like electric curtains operated from the bed, could reduce the patient's dependence on the nurse and probably his level of stress. On the question of commitment, it might be possible to identify small groups of staff who could work closely with each other. Perhaps, here, the aim of achieving maximum accessibility had to be tempered by the need to develop conceptual barriers, which would foster the notion of territoriality.

Roger Dixon

In an attempt to synthesise the previous contributions and relate them back to the process of briefing the architect, Roger Dixon set out the following model.

DEFINING _____ SOLVING

FACTS AND REASONS _____ APPLICATION

KNOWLEDGE AND UNDERSTANDING _____ WISDOM

The process of briefing takes place on the left hand side of this model. It is the architect's task to produce the solution. In the health service context, it is important to define the whole problem, not get trapped into tunnel vision by a traditional solution. Taking the example of West Dorset, there they have reached a particular level in the hierarchy of defining the problem and solving it. Given the difficulties of delivering a high standard of medical care in the District, the solution of building a new DGH on a particular site has been accepted.

The transmission of knowledge about a problem from client to and from architect involves three steps : KNOWLEDGE --- UNDERSTANDING --- WISDOM. The client has knowledge of the facts - financial, site restrictions, methods of care. These have to be set in their organizational and social context for the architect to understand their significance. The architect also needs to understand the sort of activities that are envisaged. Then he/she can bring his/her professional wisdom to bear on the problem i.e. knowledge of fields such as space planning, environmental design, ergonomics and economics.

This raises the question of who should be involved in problem definition and who is going to be affected by the solution ? Clearly, the following groups are all affected by the solution: the financing body, the managing body, operational staff, patients, visitors etc. Whoever is involved, it is vital that the problem solver should have a continuing dialogue with the problem definer (s). Although Capricode assumes a sequential process, briefing and design is much more of an iterative process. Very often the constraints on possible solutions make it necessary to re-define the problem.

Moreover it is very difficult to define a problem without some idea of possible solution, although it is no help for an architect to receive a brief which sets out the solution. Equally, architects tend to see the answer to every problem in terms of a building, a tendency which they should guard against.

Roger Dixon finished with a few examples of the sort of issues where an understanding offered by the disciplines discussed earlier might prove helpful. For instance, studies of various organizations suggest that there is a lot more job satisfaction in a job which deals with a total process rather than one component step. Thus, there may be value in combining the job of medical records clerk and receptionist. This will have implications for the design and layout of an out-patient's department. In thinking of environmental psychology, corridors should be seen as key activity spaces, with opportunities for social contact, rather than simply circulation space. Lastly, he underlined the importance of evaluating buildings and referred to the work carried out in this sphere by the Scottish Home and Health Department.

THE DISCUSSION : THE MAIN ISSUES ARISING

i) Functional Content vs External Environment.

Mr Payne, the Regional Architect from Wessex, posed what he saw as "the architects dilemma:" since there are so many interested parties involved in planning a DGH, the tendency is for the functional content to grow rather than shrink. The architect in trying to accommodate all these demands is

in danger of producing a "concrete jungle", which may be quite incompatible with the surrounding buildings, especially in a small market town. He felt that architects should be encouraged to give more consideration to the appearance of buildings in relation to the wider environment.

This point was endorsed by Mr Guest, Planning Officer from West Dorset District Council. He pointed out that the local population initially judge a new hospital, not by the service it provides (which few of them will experience immediately) but by its appearance and the way it fits in to the overall environment. He felt that not enough attention was paid to the local community and the impact of large buildings upon, for instance, the amount of additional traffic generated. Do people really want all their services centralized?

Mr Thelwall-Jones, Obstetrician and Gynaecologist from West Dorset, argued that it was necessary to centralize many services because of their interdependence, but he wondered if it was possible to present interdependent services in a scaled down package.

This led on to the broad issue of ideal size and various examples of the dysfunctional features of large hospitals were quoted. Can sensitive planning and design retain the advantages of centralization from the clinical service viewpoint, but at the same time minimize the well known problems associated with large units?

ii) Opportunities to learn from others' mistakes?

While it is idealistic to suppose that one will ever achieve a 'perfect building', it is possible to learn from evaluation studies, of the operational difficulties experienced when DGHs have been commissioned. In some instances the cause of problems can be identified and in the capital planning process greater attention should be paid to previous evaluation studies to ensure that causes are not repeated. In many cases, however, the cause of problems may not readily be apparent and these often relate to unacceptable organizational features, a threatening physical environment and to users having to behave in an unfamiliar way without sufficient preparation. Evaluation studies which have examined these softer aspects should assist those involved in planning new facilities to define more carefully their objectives in relation to behaviour, social acceptance, organizational design requirements etc.

The comment was made that current methods of consultation may appear to be a burden but is the consultation mechanism used as effectively as it could be? In small communities more effort could be made to approach individuals and groups to ascertain their expectations of the new building. Similarly early in the planning process, it should be possible to educate the community about changes which are going to be imposed and to highlight the desirable features of change. Staff must be seen as an essential group in the consultative mechanism; they not only live in the community and therefore act as a channel for information to the wider community, but they will be affected by the new building to a far greater degree than the rest of the community. The public (including staff) may have some interest in the physical design of the building, but their primary concern in going to be the location of service delivery, the manner of delivery, the organizational changes to be brought about when the building is commissioned and the individual's ability to identity with the new organization.

Can planners afford the time to consider these aspects? Do they have sufficient information in which to base decisions which may affect physical design to minimize the problems which may be envisaged? Which disciplines can contribute to the isolation of potential problems? These questions remained unanswered at the end of the workshop but it was agreed that before they could be answered it was necessary to discuss further how the approaches outlined in the workshop could be incorporated in the capital planning process and in a way which could be used by people who were not necessarily expert in these disciplines.

REPORT OF THE SECOND WORKSHOP HELD ON 5 DECEMBER 1979

List of Participants

Mr Steffen Riisager	District Administrator, West Dorset Health Care District
Mr Michael Sweeney	District General Administrator, West Dorset Health Care District
Mr Teddy Cusdin	Architectural Adviser, King's Fund
Mr John de Vulder	Assistant Regional Architect Wessex Regional Health Authority
Mr John Duke	Architect to the Dorchester DGH Project Team - Wessex Regional Health Authority
Dr Colin Willson-Pepper	Social Anthropologist Crown Agents
Ms Sue Wright	Social Anthropologist Bartlett School of Architecture and Planning
Ms Rowan Matthews	Environmental Psychologist Consultant to DHSS
Mr Bill Miller	Architect
Mr Roger Dixon	Architect MARU
Ms Jenny Blake	Consultant in Organizational Development
Ms Joy Reynolds	Project Assistant (Planning) King's Fund Centre

INTRODUCTION.

The format of this second workshop differed quite markedly from the first. Rather than a series of structured presentations, this was more of an informal discussion to develop some practical ideas about how the approaches discussed in the first workshop could be incorporated into the capital planning process. Much of the discussion focussed on the specific details of activities in West Dorset but a number of alternative models emerged of how the various softer factors might be taken into account. These would seem to be of more general application. (Some of these models have been developed further by participants in the workshop since in took place).

The Introduction of 'Softer Factors' - Timing

It was agreed that all the approaches discussed - social anthropology, environmental psychology and organizational design - needed to be discussed at an early stage in the planning process. This was particularly true in the case of social anthropology, where the logic of the discipline suggested that social anthropological skills should be employed prior to the decision to build a hospital. At present, such decisions are influenced by many factors including morbidity and mortality patterns within the community to be served. It was stressed that epidemiological studies are not the province of social anthropology which concentrates on qualitative aspects of the nature of the society and its customs. It is these aspects which influence the society's expectations of a health service, the way it is organized and the physical setting in which it is delivered. Such studies take a considerable time and it was thought that at least 9 - 12 months would be required. If a decision to build a new hospital had to be taken without such an anthropological input, these skills might also be of use later during the commissioning stage. At this latter stage the boundaries between social anthropology, environmental psychology and organizational design would appear to be rather blurred. Consequently, in the discussion that followed about ways of introducing these approaches into the planning, briefing and commissioning process, the points made applied generally to all three disciplines (and possible others of a similar ilk).

The Context - the planning, design and commissioning process

The following framework was described as a starting point to the discussion on how these softer factors could be introduced. The capital planning, briefing and commissioning process can be seen as operating at two levels. On the one hand it is necessary to programme the technical and financial stages in building a hospital. (This is what Capricode does). On the other hand there are certain 'sociological' questions which should be asked at certain stages in this process. (For example - if we put the maternity ward next to the geriatric ward for good technological or clinical reasons, what are the likely psychological/organizational effects on staff and patients). Thus one could envisage a flow chart which mapped out the essential technical/administrative tasks and superimposed on that, an overchart showing the points at which important questions should be asked about the sort of organization it was hoped to achieve within the building, the way in which design features were likely to influence people's reactions to the buildings and the way in which use of the building would fit into the local life of the community.
For although those concerned with the 'sociological' aspects of a building's performance may see ideal models of how their approaches might be incorporated, it is often necessary - in view of time, finance and logistics - to determine which issues have higher priority.

MODELS OF INVOLVEMENT

The seminar participants agreed that on the whole they were not looking for a situation where yet more experts - eg anthropologists or psychologists - came in to size up the issues on behalf of local people. Rather, what was required was for the people with specialized skills to work with local people, encouraging them to ask questions and think about the issues that the regular Capricode procedure did not pose. Within these broad parameters, however, there were different levels at which such an input could be made and also the ways in which it could be made.

At least four levels were identified at which such 'sociological' skills could be used :

i) the 'macro-environmental' level
Working on the issue of the 'hospital at large' as an institution within the local community and having an impact on that community.

ii) the 'micro-environmental' level
Working with groups of people who will occupy specific departments or areas of the new building (or any of the existing hospitals which will undergo change as a result of the new hospital).

iii) the organizational level
Working with people who will be in new or changed organizational structures when the hospital is opened. eg the nursing hierarchy, the clerical organization or the staff in the hospital or district as a whole.

iv) the inter-personal level
Working with the occupants of particular roles (eg doctor/nurse, nurse/clerk) if the organization of the hospital requires or implies a new or changed relationship between them.

There were also several methods by which expertise could be brought. Some were more appropriate to particular levels than others.

(a) Workshops - Type A. - one or more of the expertises being discussed with one existing/prospective department in a workshop setting.

Type B. - with representatives from 3 or 4 departments or divisions working with one or more 'experts'

Type C. - selected NHS employees and some external agency representatives (eg councillors, members of voluntary groups, social services staff, GPs) working with one or more experts on a specific issue which could be at any of the above levels. For example level i) might be 'The DGH and its impact on the town' and level iii) might be 'The implications of the new DGH on the existing nursing structure'.

The importance of involving members of the project team and/or the District Management Team who co-ordinate thinking on the new building and also channel information to the architect, was highlighted.

(b) Attachments
An individual could be 'attached' to an existing group or team for a specified period in order to assist it with a defined sub-task. Thus the Project Team might co-opt one of the 'experts' for a week/month/year. Alternatively several experts might be on call to the Project Team or to a department.

(c) Modelling
A group of 'experts' (those who seemed appropriate to the task in hand) could draw up a model of the process and the questions they would want to see asked at particular stages, as a guideline to those people actually involved. Again this modelling of 'how to do it' could be used at any of the levels described above

(d) 'Market Stall' seminar(s)
These would be seminars in which individual experts could describe what their disciplines have to offer to a local audience (along similar lines to the first workshop on 12.10.79). The audience could be general (eg mixed NHS staff or 'the community') or specific (members of a particular department or staff-group). Some time could be spent in smaller group discussion and if necessary, further inputs (such as (a), (b) or (c) above) could be negotiated.

(e) Written responses
Experts could respond, either individually or jointly, to defined problems, which arose for a particular group at the project developed. (For instance : How can the Project Team ensure commitment from all parties to be affected by Stage X of the Project ?).

CONCLUSIONS

It was recognized that the extent to which any District or Health Authority made use of the skills which had been discussed, would depend on the time, money and energy available locally. However, by outlining a range of different levels and methods by which such skills could be tapped, this gave management-teams a framework within which they could choose the sort of input most appropriate to their own circumstances. Thinking on this type of issue is still fairly new. It can only be developed as different modes of incorporating the 'softer factors' in planning, designing and commissioning are tested in different parts of the country.