IMPROVING HOSPITAL DESIGN

Iden Wickings

A Report on the King's Fund Hospital Design Competition for 1993

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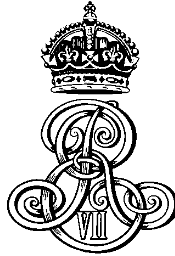

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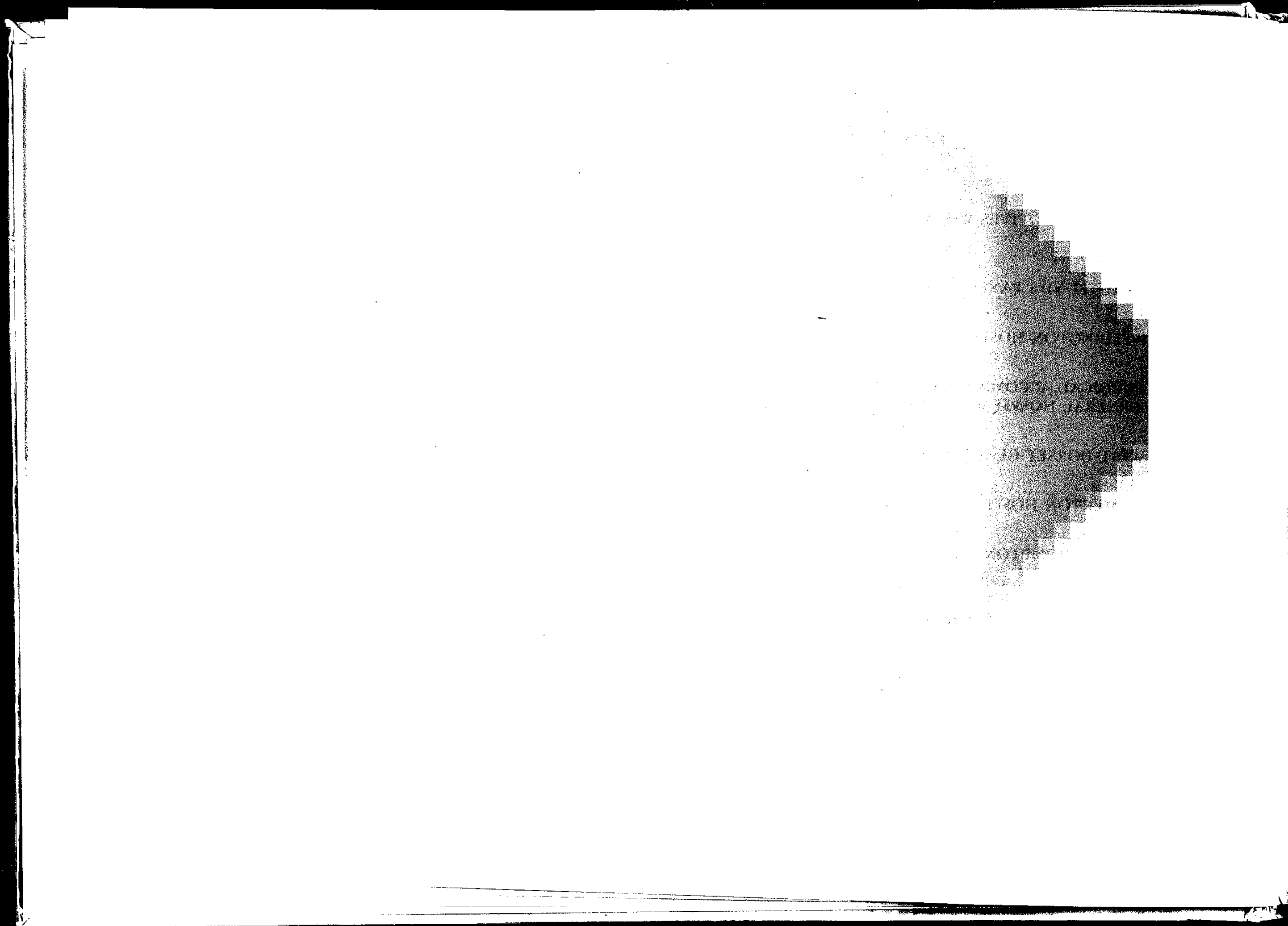


THE FUND'S OBJECTIVES WHEN STARTING THIS COMPETITION

There is much to celebrate in these pages and yet few observers can be happy with the general state of hospital design in the UK today.

Building any hospital is a major investment. The enterprise deserves to be inspired by a vision: to be aiming for beauty as well as efficiency, and to be creating an excellent environment both for patients and staff.

These issues are not new ones, but in the recent past there has been more interest in efficiency than in environmental quality. Over 30 years before the Fund was established, Florence Nightingale wrote about hospital design, but many of her conclusions are still relevant today. She used both good and poor examples to demonstrate her views of good practice.
She wrote:

> *'Great advances have been made in the adoption of sound principles of hospital construction; and there are already a number of examples of new hospitals realising all, or nearly all, the conditions required for the successful treatment of the sick and maimed poor. Besides this, much additional experience has been obtained in many important points, especially in the details of hospital buildings and fittings.*[1]

To the Fund it has seemed that:

- designing large acute hospitals has always been very difficult;
- many of the new hospitals recently opened in Britain have proved to be extremely disappointing;
- there are, however, some good examples – and some excellent parts in many of the new hospitals; and
- these successes give hope and should be used to raise standards overall.

The King's Fund can already demonstrate a long standing commitment to the improvement of hospital design. At the turn of the century it was commenting upon planned new developments in London. At various times the Fund has supported different competitions, made major donations towards schemes to improve ward and departmental designs and allocated significant grants to encourage better landscaping in hospital grounds. But in recent years, within the Fund, concern about poor standards has, if anything, grown.

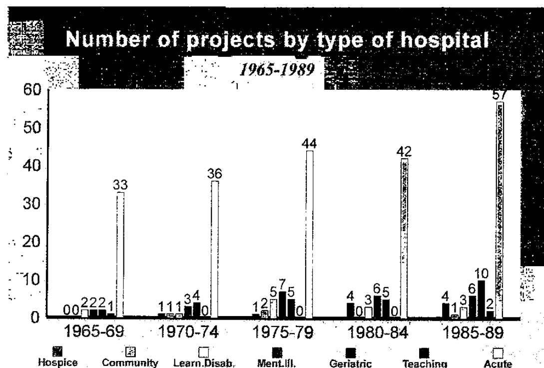
To understand the position in England and Wales the Fund commissioned two focused studies. The first was by Rawlinson, Kelly and Whittlestone [1990][2], and the second by Critchlow and Allen [1993][3]. The survey by Carol

[1]Nightingale, Florence, Preface to *'Notes on Hospitals'*, 3rd edition, Longman, Green, Longman, Roberts and Green, London 1863.

[2]Rawlinson, Kelly and Whittlestone, *'Health Building Developments in England and Wales over the last 25 Years'*, a report produced for the King's Fund, London, July 1990

[3]Critchlow, Keith and Allen, John, *'The Whole Question of Health'*, a report produced for the King's Fund, January 1993.

Rawlinson and her colleagues studied the type of hospitals that had been built in Britain in the 25 years up to 1990. It can readily be seen that the Fund's emphasis in this competition on acute hospital design is justified:



Rawlinson, Kelly and Whittlestone also reported on the consumers' views about their accommodation. Their report drew partly on a catalogue of over 400 surveys produced by the Centre for Health Economics.[4] Rawlinson and her colleagues summarised the problems experienced by patients that had been identified by the Centre and other consumer surveys as falling into the following categories:

> ***Layout of hospital or department***
>
> *location of signposting, carparking, lack of privacy and/or confidentiality in a variety of departments.*
>
> ***Lack of provision, inadequate provision, operational policies***
>
> *overcrowded waiting areas, too few bathrooms and WCs. Lack of a play area for children (in OPD), lack of toys, need for improved refreshment facilities, smoking allowed in dayrooms.*
>
> ***Ambience/decor/environmental aspects***
>
> *drabness of decor in waiting areas, lack of magazines, preference for music in waiting areas, temperatures too high in bedrooms. Cleanliness of bathrooms and WCs.'*

Critchlow and Allen, having completed their review, wrote:

> *'. . . it is now quite clear how the requirements of technology have played a leading part in the development of modern medical practice and thereby modern hospital design. In the process, the wider and deeper range of needs of patients and staff have suffered neglect.'*

The Fund decided that what was needed was a way to encourage excellence in design. The Fund's aim for this competition has therefore been simple: to publicise some of the success stories and hope that in future such high standards will be normal in new British hospitals.

[4]Centre for Health Economics, *Survey of Consumer Views'*, October 1991.

WHAT THE FUND'S PANEL OF JUDGES HOPED TO FIND

The distinguished panel of judges appointed by the Fund is listed in Appendix A. The Fund's panel sought to find excellent examples of large hospital developments opened in Britain between 1980 and 1990. This decade was chosen for the first competition, on the advice of the Royal Institute of British Architects, to allow sufficient time for both the design faults and successes to become apparent. The panel members shared the Fund's wish to seek and publicise good designs, and to emphasise what made them good, in order that the overall quality of new hospital building in the UK should improve in both the NHS and the independent sectors.

A high quality of life offered to patients

Carpman and Grant published their first edition of 'Design that Cares' in 1986. In the foreword they wrote

> *'Individuals and their health care facilities have a long and varied relationship . . . With the modern age of medical science and the twentieth century came the grand era of hospitals – clean, sterile and well designed – serving as the community resource for healing all sorts of illnesses. Then came the age of technology, with elaborate health care facilities for diagnosis and therapy on a large scale. Through it all, the patient, as a human being, has been more an object on the scene than the focus of design.'*[5]

Some observers have challenged what Carpman and Grant said, but study after study in the UK has reported that patients do not feel that their needs have been adequately considered. Robert Gann wrote:

> *'somehow when patients enter hospital it is all too easy for them to experience a loss of autonomy and dignity . . . Many of the most important moments in people's lives are spent in hospital, yet for patients they can be cold, impersonal places.*[6]

Robert Gann was contrasting British hospitals with the Planetree Hospital in San Francisco, California, where emphasis, in design issues, is placed on such things as

- the patient's personal control over their thermal environment and lighting;
- barrier free spaces;
- the patient's privacy;
- patient's access to food with a residents' kitchen; and
- atria, gardens, skylights and balconies.

At Planetree patients are also encouraged to 'take charge' of their treatment and given the library facilities to help them to make informed choices.

[5]Carpman, Janet R. and Grant Myron A., *'Design That Cares – Planning Health Facilities for Patients and Visitors'*, American Hospital Publishing, Inc.: Chicago, 1993, p xi.

[6]Gann, Robert, *'What your patients may be reading'*, Br. Med. J. 1988; 296: 493-5

But even though the Planetree approach is radically different from most acute hospitals, one should remember that this 'patient focused' attempt to provide a pleasant environment is not entirely novel in either the USA or Britain. Small hospitals and hospices have tried for many years to achieve these ends. But what has usually been missing has been similar efforts in large general hospitals.

A human hospital with an easily comprehensible layout

In 1985 John Weeks described what patients want:

> *'In common terms a hospital should be "human". ... Organisationally a human hospital is one in which patients are treated as individuals . . . Physically a human hospital is small, architecturally familiar, nicely decorated, and made of brick with a lot of flowers and wood inside and lawns and trees outside. It has a pitched roof and ordinary sized windows.*
>
> *Most new hospitals are not like this.*[7]

Large general hospitals are, by definition, not small. This poses particular questions for designers. How are patients to feel that the overall scale is not intimidating? Can most patients identify with particular areas or departments, and be familiar with the majority of the staff who will care for them? Can designs be so structured that patients do not feel that they are forever traipsing around endless corridors? Will it be easy for patients and visitors always to know where they are and how they can find the exit, food, ward or department that they want?

John Weeks went on to suggest that some of the characteristics of new hospitals can be particularly menacing:

> *'Patients are made to feel well down the hierarchy from the moment they commit their personal particulars to the computer, begin their series of mysterious waits for attention, and are directed down long, clean corridors to one of hundreds of identical doors . . . A hospital is a complex organisation, but if the physical shape of the building reinforces this complexity no one, neither staff nor patient, is helped in coming to terms with it, let alone understanding its operation.'*

So one requirement of good design is that the hospital has a readily comprehensible overall shape and circulation system.

The capacity to accommodate frequent changes

Another requirement for good design has to be the ability to change or enlarge individual departments without destroying the comprehensibility of the entire hospital's structure. The best operational policies are always newly emerging. The King's Fund has worked for many years to improve not only the practice of health care delivery, but also health service management and policy development both within and outside hospital walls. Indeed, the Fund has been in the

[7]Weeks, John, *'Hospitals for health'*, Br. Med. J. 1985; 291:1815-7

vanguard of those seeking firstly to make hospitals' walls increasingly permeable to patients, their families, other carers and professional staff, whilst, secondly, encouraging different patterns of treatment in or near to people's homes whenever this does not jeopardise the quality of care overall.

The pace of technical and clinical change is also accelerating. To quote a few obvious examples:

- new clinical procedures and their associated technological advances, are being introduced ever more rapidly;
- patients are mobilised within hours of surgery;
- diagnostic scans may be completed non-invasively in seconds instead of depending upon painful procedures lasting several hours;
- some surgeons are treating selected major surgeries as day cases;
- pathology services may be organised remotely, or the so called 'near patient' technologies may be used;
  and
- children, in particular, are much more frequently treated at home but are often cared for by their parents when they have to be admitted to hospital.

It was no surprise that, when visiting the hospitals, the judges found that all had already been restructured internally, to accommodate new services or clinical requirements, even though the buildings were only a few years old.

A beautiful or at least pleasing environment

A further major requirement for good hospital design is beauty.

Patients, of course, give the highest priority to obtaining the very best available treatment; but they are also individuals who merit respect, who may be frightened and require reassurance, and who are people with eyes, ears and other senses who need and deserve to receive pleasure from their environment.

Any belief that there is an inevitable choice to be made between providing either a technically efficient range of facilities or an environment focused upon the human needs of patients is misplaced. There is beginning to

be research evidence that poor design is linked, in Ulrich's words[8],

> *"to such negative consequences for patients as, for instance, anxiety, delirium, elevated blood pressure, and increased intake of pain drugs".*

Ulrich continues:

> *"research on intensive care units has shown that sensory deprivation stemming from, for instance, lack of windows, is associated with high levels of anxiety and depression, and with high rates of delirium and even psychosis (e.g. Wilson 1972: Parker and Hodge, 1967, Keep et al., 1980). In intensive care units, windowlessness appears to aggravate the deleterious effects of low levels of environmental stimulation associated with such conditions as unvarying lighting and the repetitive sounds of respirators and other equipment."*

A welcoming and efficient entrance

The initial impact of a hospital entrance and the arrangements made to welcome and guide patients and visitors is clearly important. In Critchlow and Allen's study for the Fund, referred to earlier, they made a special study of entrances. They observed:

> *'Firstly, what is an entrance? It is the threshold of something new in spatial and functional terms. The coming 'indoors' from any outside space signals the entry into some form of protection or sanctuary. For a health care building, this will again often be heightened when the expectations are intensified by concern for recovery or for the results of investigations. The front entrance of a health care building is thus a place of special transition, symbolising the first steps on the path of recovery, or of a new life of coming to terms with a condition.'*

Entrances need to be reassuring and convenient for all patients and to help them to feel they are in efficient and caring hands.

Providing patients with the freedom to 'be themselves'

If people admitted to acute hospitals are to be treated not simply as sick patients deserving the best professional care but as valued human beings with social, intellectual and personal needs and interests, then what is to be done?

Meeting these needs is almost a new concept for general hospitals. There have, of course, been many developments in other fields of care. In these fields 'ordinary life' initiatives have often transformed the quality of experience offered to people with mental illness, learning disabilities, terminal diseases or AIDS. As just one example, it is worth reading what Michael Kelly experienced in the Mildmay Mission Hospital in East London:

> *'I knew there was always a good supply of food in the kitchen on the Unit, in case patients chose to cook meals independently;*

---

[8] *Ulrich, Roger S., 'Effects of Interior Design on Wellness: Theory and Recent Scientific Research',* (1991), Journal of Health Care Interior Design, 3:97-109.

so after a quick check I donned an apron and got cracking with several boxes of eggs. I ended up cooking omelettes for half the patients who, incidentally, thought my antics hilarious, but who applauded them none the less in the form of some plain, some with mushrooms, some with smoked bacon and others with melted cheese. Amply nourished . . . I took to the conservatory in the afternoon to listen to some Gladys Knight on my Walkman. This was an environment I felt very relaxed in, with its colourful array of plants, flowers, herbs and fountains. So relaxed, in fact, that ensconced in my favourite armchair I promptly fell asleep for several hours.

I had apparently been checked on at regular intervals, but allowed to continue sleeping out of respect to my body's natural responses. I'd been allowed to be me.[9]

Meeting the customers' needs

Kenneth Schwarz, an American architect, believes that there will be three driving forces dominating the planning of healthcare facilities into the next century:

Schwarz is a principal with one of the leading international practices of hospital architects. He agrees with Susan Harris that the idea of quality in hospital environments has undergone a paradigm shift:

> *'From an extra to be had if you can afford it, to a central organising principle for survival.'*[10]

Market forces of the type behind Schwarz's statement are not yet as powerful in Britain as they are in the USA, but even here the position is begining to change. For example, a recent publication by NHS Estates wrote of the

> *'need for change (that) is in step with a more general trend in healthcare and other sectors to respond to people's needs and to solve their problems as individuals, regarding them as customers and not products or parts of a process.'*[11]

Some people find the term 'customers' offensive in a health care setting, but the general principle has to be right. How the shortlisted hospitals had been designed to meet the ordinary life requirements of the patients being treated formed an important component in the judges' deliberations throughout this competition.

[9]Kelly, Michael, *'Living on the edge'*, Marshall Pickering, London, 1993

[10]Schwarz, Kenneth, *'How New Forces of Change will Impact Facilities'*, Anshen and Allen, San Fransisco and London, undated.

[11]NHS Estates Health Facilities Note 01 *'Design for patient-focused care'*, HMSO: London, 1993.

The requirements for a good hospital design

Designing a large general hospital successfully is an exceptionally difficult task. It is not surprising that the results, even when experienced teams have been at work, have often been disappointing.

To summarise, a good hospital design will have the following characteristics.

It will be:

- beautiful, or at least pleasing to the eye, and contributing successfully to the local environment;
- well landscaped;
- easily comprehensible as a building and well sign posted;
- easy and convenient to enter and welcoming for all patients and visitors;
- finished to high standards but in styles which are non-institutional;
- able to offer all in-patients, and most staff, good windows with attractive outlooks;
- readily and economically adaptable to meet changing clinical needs;
- efficient and convenient for the staff to provide high quality professional care;
- 'human', both organisationally and physically;
- able to provide adequate privacy and confidentiality everywhere for patients and their relatives;
- designed to allow patients to control their own environments in relation to noise, TV and radio broadcasts, ventilation and temperature;
- facilitating for patients ordinary social, intellectual and personal lifestyles, for instance by providing adequate space, storage, telephones and facilities for personal dietary requirements;
- adequately furnished for patients of all ages and types and with sufficient WCs, bathrooms and day spaces everywhere;
- well designed for minorities, such as children, old or disabled people and the ethnic groups represented in the local community; and
- reasonably economical in both capital and revenue terms in relation to its own market.

The above summary might be useful as a check list for those considering the proposals of design teams. Each of the hospitals which the King's Fund panel of judges commend in this report had many excellent features included in the above list.

But none of them totally met all of the above requirements for a good hospital design.

The Winner of The King's Fund Design Award for 1993

The Wellington Hospital (North), London, NW8 9LE

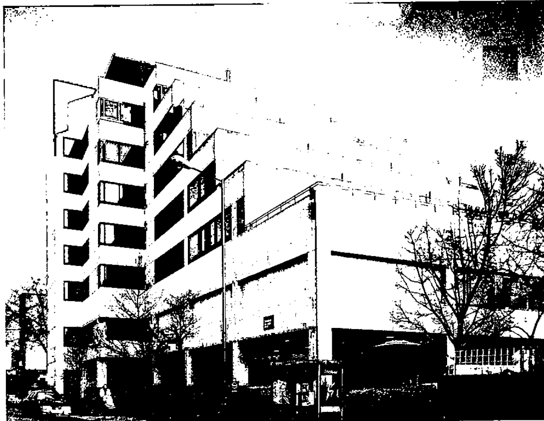
Architects:
YRM Architects and Planners,
24 Britton Street,
London, EC1M 5NQ

The Wellington (North) has 124 beds, 4 operating theatres, a maternity unit and SCBU, X ray and cardiology laboratories. It works in co-operation with the main Wellington Hospital which is a short walk away. The entry form for Wellington (North) said that:

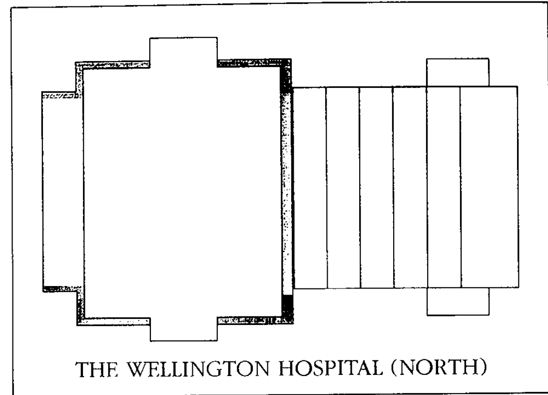
> *'The building provides a high quality environment for health care in the private sector. It combines all of the qualities required for patients and staff: comfort, security, a feeling of relaxation and confidence, within the commercial framework of a private hospital. It also deals with the 'hotel' aspects of the patients' stay in a quiet yet all-embracing manner.'*

The King's Fund Design Award Competition was deliberately made open to hospitals in both the NHS and the independent sector and the Wellington Hospital (North) was one of several entrants from outside the public sector. Ultimately it was the only independent hospital to be included in the final short list of five Highly Commended designs and after detailed consideration it was selected as the competition winner.

Wellington Hospital (North) – Front elevation



The stepped form at the rear used to provide balconies



It is too easy to say that the independent sector can simply provide standards which the NHS can never match. The judges made allowances throughout for the different financial positions of the hospitals they visited. But the designers of the Wellington Hospital (North) have truly succeeded because they have really tried to create a good experience for patients.

The hospital has many good features. The lighting is excellent, there are good views, there is privacy, quiet and a reasonable amount of storage for both patients and staff. The site has been used very densely and yet the quality of the patients' environment has not suffered. Patients are immediately aware that they are valued and NHS hospitals could and should strive to achieve all of these things. The Wellington has some less successful features: its entrance area lets it down, the twin bedded rooms are neither very pleasing nor popular with either patients or staff, and the works department is too congested. But, in general, it is very successful.

Its overall structure reflects the pressures faced by designers who have to build hospitals in inner city areas where land is scarce and land values correspondingly high. In this particular case, there was also the necessity to step the hospital floors back as the building rose so that the houses behind the hospital did not have their rights to light infringed.

A pleasant detail near the entrance

What the patients think of the Wellington Hospital (North)

One of the first questions in the special questionnaire issued during this exercise to patients and visitors asked 'What was your initial impression of the hospital?' Clearly, this can be answered in relation to the physical appearance of the building or the way new visitors or patients are received, but the question was intended to discover what patients remember of their first experience of the hospital. At the Wellington (North) impressions were sharply divided, clearly depending upon which aspect had influenced the respondents most strongly. Approximately half of the patients' and visitors' initial impressions of this hospital were poor – and half good. Some of the appreciative comments were:

'Very good.'

'Efficient and welcoming.'

'Impressive'.

'Very clean and inviting.'

'Very comforable and clean.'

'Very comfortable and professional.'

But some patients criticised the hospital's initial impact:

'Difficult to find the front door.'

'Lobby poorly decorated. Drab colours in furniture and fittings.'

'A little gloomy but luxurious.'

'Unwelcoming atmosphere.'

When asked specifically about the hospital's design there were only supportive comments:

'Good design, plenty of space in open areas of hospital.'

'I have only seen the lobby, stairwell and 2nd floor – they seem fine.'

'Perfectly adequate.'

'It is OK.'

'Very good.'

The fact that there were no critical comments about the design should be considered in the context that patients who are paying considerable sums for their care usually have very high expectations. In consequence, private patients in Britain are usually much more inclined to criticise if they think standards are poor or that a desirable feature has been omitted.

Every patient from the small sample that responded to the questionnaire said that it was easy to find his or her way around the hospital. 85 per cent of respondents said that the hospital provided 'the atmosphere that should be aimed for' while only one respondent did not think that the surroundings contributed to making him or her feel better.

In each of the shortlisted hospitals patients were also asked to identify some detailed design factors about the areas that they used which they considered to be good. Once again, the proportions must be treated with caution because the number of patients who completed the questionnaire in the Wellington Hospital (North) was particularly small. This may have been partly because compared with the other hospitals, a higher proportion of the total number of patients came from other countries and some had little spoken English. However, during their visits, the judges held several discussions with patients that they met and the opinions recorded seem to reflect the patients' general opinions quite fairly.

The areas and the percentages of our small sample that commended the following specific factors were as follows:

Area	Privacy	Space	Facilities
Bed	66%	60%	60%
Day areas	N/A	N/A	N/A
Examination/treatment rooms	N/A	N/A	N/A
Bathrooms	73%	60%	60%
Toilets	73%	53%	53%

The percentages are for all the respondents, and in the bed areas it should be noted that patients' satisfaction was lower in the twin bedded rooms but very high in the single rooms. It can be seen that for this hospital, in which patients are only in small rooms, questions about day rooms were inapplicable and the number of patients who said that they had gone to treatment rooms was too small for their views to be included in the table.

Each patient was asked if their bed had a pleasant outlook, and in this hospital nearly all said that it had.

The single rooms were clearly popular. Every patient responding said that they would prefer to have a single room if they had to be admitted to the Wellington again. Amongst the appreciative comments made were the following:

> *'Very good.'*
>
> *'Fine, but I haven't been out of my room much.'*
>
> *'Excellent.'*
>
> *'Single room fine.'*
>
> *'Very pleasant.'*

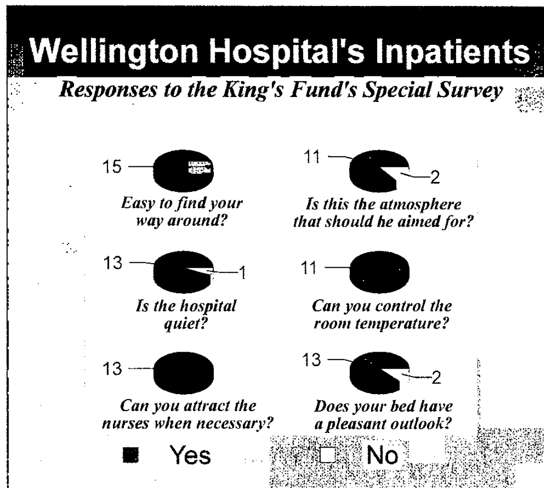
In our sample 20% of the patients were in twin bedded rooms. From these patients there were some criticisms:

> *'The rooms are not big enough for two people.'*
>
> *'Private room good layout but would have been better 2ft wider.'*

Patients were asked about their ability to communicate with the nurses when they wished to do so and at the Wellington all said this was good. The hospital has a patient/nurse station communication system and one patient wrote:

> *'Especially efficient direct voice contact – I think this is of crucial importance in reassuring patients.'*

Patients in the wards visited by the King's Fund judges were also asked for their views on certain specific questions. The pie diagrams below show their answers.



The overall design of the Wellington Hospital (North) clearly satisfied most patients and when asked to describe the environment patients made the following comments:

> *'Good.'*
>
> *'Pleasant and comfortable.'*
>
> *'Very good.'*
>
> *'Pleasant, comfortable and not intimidating.'*
>
> *'Very caring and pleasant.'*

One patient, who was not typical, was clearly very dissatisfied:

> *'I think it is disgusting to pay for a tiny room in which there are two beds. There is no room for visitors to sit, let alone have a private conversation with the patient. There are no seating areas on the ward where one could be cosy and comfortable.'*

But others made interesting and much more laudatory remarks:

> *'Having a self contained floor allows rapport to be established between patients and all staff including nurses, catering, cleaning and specialists e.g. pathology etc.*
>
> *'Ratio of floor area to vertical access (lifts) means that there is a minimum of horizontal access; so it is easy (and quick) to walk, use wheelchairs, trundlebeds.'*
>
> *'An excellent design which I doubt could be improved upon.'*

The views of the staff

The Fund received written comments from relatively few staff but they worked in a variety of areas which the judges had visited. These included the fourth floor ward, ophthalmology, gynaecology and the Special Care Baby Unit.

Amongst the remarks made were:

'Basically good, all areas accessible and without too much wasted time walking.'

Satisfactory – Doorways to rooms a little small while transferring patients on beds.'

'On the whole very good – all floors of similar layout which makes it easy. Spacious corridors.'

'Basically very good though unfortunately patients have to travel to other building for scans.'

'The design is good. Pity there wasn't a connection between the two buildings.'

Wellington Hospital's Staff's Views

Responses to the King's Fund's Special Survey

Easy to find way around?

Enough space for your work?

Good rest rooms/canteens?

Good access between Departments?

Enough storage space?

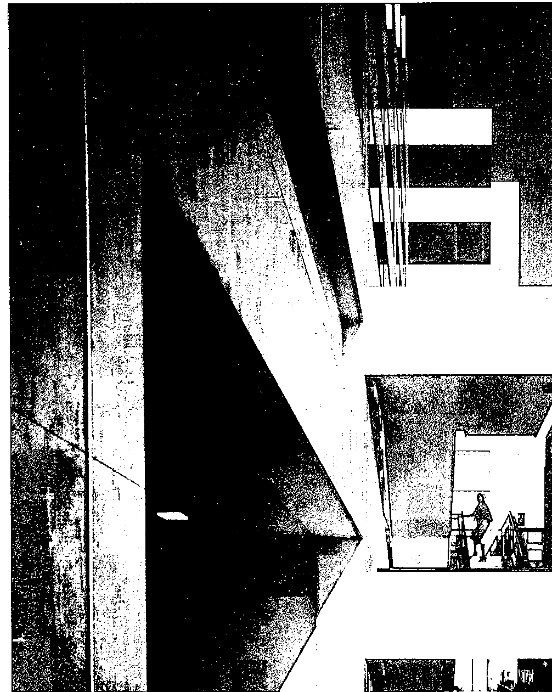
■ Yes □ No

A noticeable exception compared with the other hospitals visited was that all but one of the staff who responded said that there was adequate storage room in the areas in which they worked – indeed one reply said that there was plenty of storage!

Staff criticisms mainly concentrated on the patients' bathrooms and the lack of space in the twin-bedded rooms:

> *'The hospital design is good, except for the patients bathrooms which are, one, too small, and, two, too cluttered and need either walk in shower or centralised bath for using a hoist.'*
>
> *'Rooms need to be wider in emergencies – a lot of moving of furniture has to be done, i.e. for a cardiac arrest.'*

The well positioned ward reception point opposite the lifts



The building has a sculptural quality

The judges' comments on the Wellington Hospital (North)

The Wellington Hospital has some exceptionally good features which considerably impressed the judges and these are described below; but the initial impressions it created were not thought of highly. For instance, there appear to be no arrangements to provide car parking for patients or their visitors. The main entrance itself was criticised by all the visiting judges. It is covered by the ward blocks overhead, is dark and is difficult to find. One of the judges said:

> *'The main entrance lets the hospital down; I wandered around the front of the hospital before finally finding it hidden beneath a depressing covered-over medical staff parking and waiting area. Not at all welcoming, although efficient for dropping patients and visitors off, as traffic travels past the entrance and out again.'*

The exterior appearance of the whole hospital is simple and clean cut. One judge thought the build beautiful, or at the very least pleasing, and that it exploited the site's natural features well while contributing sensitively to the local environment. A second emphasised the very pleasant balconies. A third wrote that the hospital's

> *'stepped form and white rendering gives it an efficient modern and sleek appearance'* while the *'balconies and large windows give marvellous views and help orientation. As an uncompromisingly modern design, it sits well, without dominating the surrounding buildings.'*

There is a pleasing boldness to the overall design. It uses the inner city site intensively, which may be inevitable with high land prices, but it does so without sacrificing the quality of environment generally offered to the patients. On the whole, the working conditions for the staff are also quite good although there is a lack of office space for junior doctors on the ward floors.

Once inside the main entrance, the reception area pleased all of the judges. The desk is well placed, is a good height and had plentiful flowers. The reception area as a whole is

The entrance for patients is at the back beneath the lights

The reception area is unlike a typical hospital

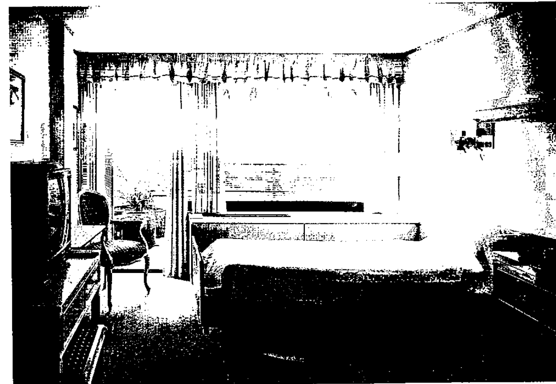
efficient and welcoming, with comfortable chairs. It does not look like a typical hospital.

The rugs, flowers and chairs provide a reasonable welcome to patients even though the somewhat submerged area is inevitably a little gloomy.

The Wellington Hospital (North) has no outpatient accommodation. After their initial reception, therefore, most patients will travel directly to their ward floor by lift and as they emerge they should be greeted immediately by staff working at a well placed nurses' station.

Almost all of the patients' rooms throughout this hospital had large windows with very attractive outlooks across interesting sky and townscapes. Providing plenty of window space, with adequate blinds or curtaining, makes a very worthwhile difference and the patients' accommodation here seemed generally light and airy. Patients were also provided with adequate space and facilities to keep their clothing and personal possessions where they would want to.

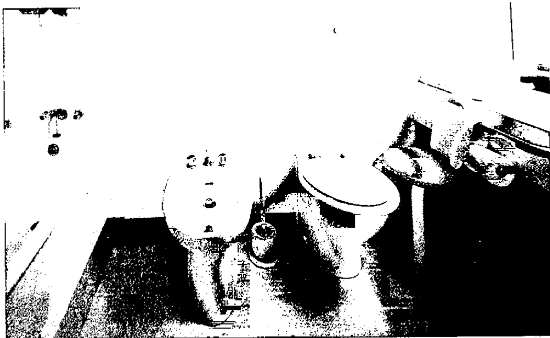
The patients' single rooms were generally of a very high standard, with the accommodation at the rear being exceptionally pleasant with balconies for the patients, complete with flower tubs, outside the glass doors. The entrances to the rooms are welcoming, with timber finished doors and an effective system for putting both the patient's and the consultant's name up outside the door. There is no doubt that patients here are afforded the benefit of knowing



The single bedrooms are excellent with very good windows

their own 'defensible territory'. The single rooms are of a reasonable size and, of course, offer a quiet area where patients can talk to staff and visitors in adequate privacy. These bedrooms would be a little congested if there was much equipment in use and probably some of the pale wood coloured furniture would have to be removed temporarily which must be irritating for the nurses.

Obviously a benefit with such single rooms is that patients can choose whether to watch television, listen to the radio, or opt for peace and quiet. There is a communication system, which allows patients to talk to the nurses on duty, and the judges were told by patients that they found this very reassuring. The rooms were fully air conditioned and the temperature in each could be adjusted to suit individual preferences.



Staff helping patients have no toe space beneath the bath

Provided that the patients are fully mobile, the bathrooms have good facilities, but it would be difficult to use any hoists or equipment to assist frail or disabled people. A design fault is that there is no toe space under the baths to help staff position themselves to advantage if they have to lift patients or place the feet of appliances under the bath.

The twin bedded rooms were much less satisfactory. The judges echoed the patients' views quoted earlier that there is too much congestion in these rooms. Possibly the feeling of having one's personal privacy invaded is worst of all in twin bedded rooms, unless one is very fortunate or has been able to choose the partner. In the Wellington Hospital (North) these rooms did not have balconies and most were on the main road frontage, but the use of air conditioning still meant that traffic noise presented few problems.

There are no day rooms on the wards although there are some chairs scattered around the lift lobbies. There is one quite pleasant lounge for the whole hospital. In general, patients have to eat in their rooms and if they are gregarious by nature there are few opportunities to meet other patients and form friendships.

The design and finishes overall have clearly worked well and the design does not appear dated. There is admirable clarity in the circulation patterns. The first patient was admitted in October 1982 but the building as a whole shows no signs of deterioration. This is the result of good design, good maintenance, high quality finishes, use of marble surfaces in the bathrooms, soundly made doors and carpets virtually throughout. Both the intensive care unit (which was light,

well ventilated and had lots of windows with blinds that could be lowered) and the SCBU had been decorated in ways which could be widely used as an example. This seemed a good way to de-institutionalise high technology areas.

The interior decor is not exciting but it is timeless and has lasted well. Very few doors or walls had suffered damage from trolleys or wheelchairs.

There have been a number of extensive interior changes which appear to have been implemented easily and the judges were assured that building alterations are simple because the interior walls are not load bearing; they do however afford a very high degree of sound insulation.

The signs seemed good, clear, discrete and functional. They did not appear too much like those found in a typical institutionalised hospital, but the lift controls were poorly marked and sited. The artworks were disappointing: they were very hotel-like, unimaginative and generally undistinguished. There is little or no sculpture and the pictures and prints are inoffensive but not at all memorable; nor are they likely to provide much to interest or stimulate patients, visitors or staff.

The energy sources, drainage arrangements, air conditioning and ventilation plant for the hospital are in the basement. These are too densely packed and, although clean and well maintained, are somewhat unsatisfactory and provide poor working conditions. Facilities for the staff generally are also barely satisfactory; each floor really needs at least one small room for the medical staff and the staff canteen, though light

A civilised recovery area

and of good general standard of decoration, is rather small.

There are, therefore, some important criticisms to be made about this hospital, particularly in relation to the main entrance, the twin-bedded rooms, the works area and the accommodation for staff.

But, in almost all other respects, the Wellington Hospital (North) is a very successful hospital design. It shows throughout that it has been well thought out. The patients' accommodation is generally of a very high standard. It is a development of high quality which has proved itself over the last few years to be robust and adaptable.

Outstanding views from the ward balconies

Some specific points of note are that:

- the exterior is handsome, fits the location well and has proved durable;
- the hospital has a high standard of finishes using timber and fabrics more than plastics and stainless steel;
- it has proved adaptable;
- it has a clear internal circulation pattern;
- it provides an outstandingly good environment in the single rooms;
- the patients' needs for comfort and independence have been met well;
- the patients have good outlooks virtually everywhere;
- the window design is excellent;
- there is almost sufficient storage space for the equipment needed to treat patients;
- the high technology areas clearly work well and are not needlessly intimidating; and
- the ward reception areas are well located and designed.

For the overall quality of its design, the panel of judges selected the Wellington Hospital (North) as the winner of the King's Fund Hospital Design Award for 1993.

A Commended Design – New Surgical Accommodation at the City General Hospital, Stoke

Architects:
Percy Thomas Partnership,
30 St Paul's Square,
Birmingham, B3 1QZ.

This development provides 387 beds for a range of surgical specialities but also includes 84 paediatric beds, 8 operating theatres, 6 X-ray rooms, kitchens and staff restaurant facilities. It is a standard Nucleus design.

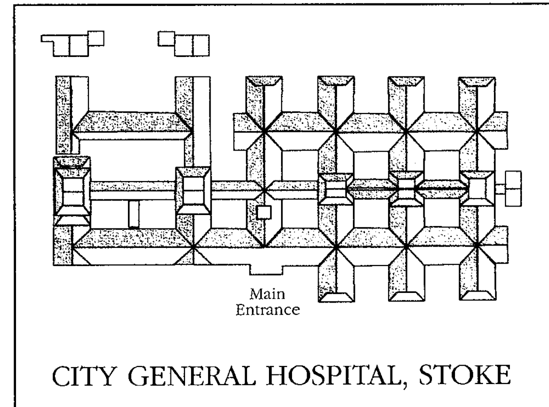
The application form for this entry said

> *The building at Stoke has been carefully designed to provide a warm, friendly and welcoming environment with high quality landscaping which enables the building to sit excellently into the natural features of the site.'*

On the whole, these aims have been realised and the landscaping is particularly strong. The landscape architects were PTP Landscape and Urban Design.

The campus for the City General Hospital is extremely large and the judges were told that there was no development control plan for the whole hospital when the entry was designed. The site of the Surgical Buildings within this campus slopes steeply to the west. The buildings are in brick with strong overhanging eaves. Part of the development is two storey with the remainder single storey with services and plant mainly concealed in the pitched roofs. There are well advanced plans to extend these buildings but unfortunately this will affect the present car park for patients which currently is well located near the entrance to the Surgical Buildings.

The main entrance has a large canopy over a small 'roundabout' which is the setting down point for cars and ambulances.



What the patients think of the new surgical accommodation at Stoke

The patients' initial impressions when arriving at this unit were very favourable. Some of their comments were:

> *'Well signposted, bright and clean'*
>
> *'Very good'* (a frequently expressed response)
>
> *'New building which appeared well designed with good parking areas and easy access. Good modern facilities'*
>
> *'Very good or better than the old fashioned multi-storey buildings; a good main entrance and easy access to all parts and all modern facilities in the right places where they are needed'*
>
> *'Very attractive, not of the usual design of a hospital which is usually austere. I call it the "pagoda" style.'*

When asked specifically about the hospital's design every one of the patients responding said that it was easy to find his or her way around the hospital. There were several interesting comments:

> *'The layout is well planned and signed so one should not be confused in finding wards.'*
>
> *'The corridors have plenty of windows (I find windowless corridors stifling!) and I also like very much the garden plots along the length of the corridor – also you don't have to walk too far to get to stairs or lifts.'*
>
> *'Very good'*
>
> *'Couldn't be better.'*
>
> *'Great'*
>
> *'Flat, mostly one storey, easy access to all parts.'*
>
> *'Excellent. This block is very good.'*

There was only one critical comment:

> *'Too much walking to the wards for disabled people.'*

The excellent canopy outside the main entrance

Area	Privacy	Space	Facilities
Bed	60%	50%	57%
Day areas	27%	50%	43%
Examination/treatment rooms	47%	43%	37%
Bathrooms	73%	60%	60%
Toilets	77%	57%	57%

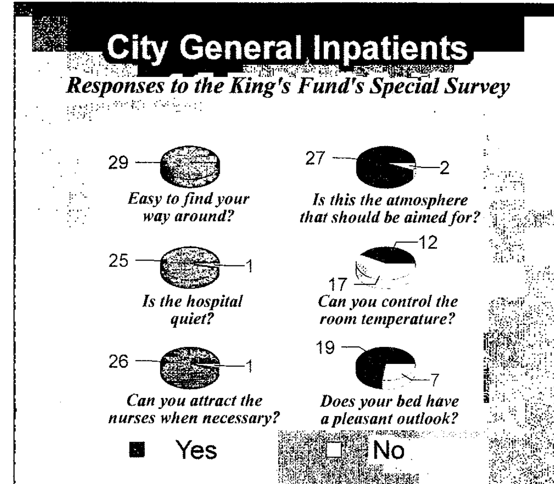
Patients were asked to identify some detailed design factors which they considered to be good in the areas that they used. The areas and the percentages of our sample that commended the specific factors are shown above. It can be seen that patients were least satisfied with the privacy in the day areas and that the treatment rooms were not well regarded; but overall these marks of patients' appreciation were fairly high.

Patients in the wards visited by the King's Fund judges in Stoke were also asked for their views on certain specific questions. The pie diagrams show their answers. It is a feature of many Nucleus designs that some of the patients have very poor outlooks from their beds. It can be seen that in the Fund's small sample 7 out of 26 (27 per cent) criticised this feature and, of course, most of those in the general wards have no control over the room temperature.

The picture on page 60 shows one of the small wards at the City General which is fairly typical of many Nucleus designs.

The view is taken from the position of a patient in one of the beds opposite. As can be seen, there is no satisfactory outlook and the windows opposite look rather glaring with their deep recesses between the more shadowed columns.

It is pleasing to see that efforts have been made to provide a high quality of environment, with pictures on the wall, carpetted floors and small wardrobes beside the lockers. However, the only space for the lockers is in front of the windows.



The views of the staff

The judges were told by the nursing staff that they met on their visit that the Surgical Buildings were well regarded. Nurses found access between departments reasonably good. Of course, visitors often are given favourable reports, but the nurses generally seemed pleased.

The questionnaire that had been issued was either not distributed to nurses or they chose not to use it. All of the staff respondents were either clerical or worked in the X-ray Department and they were much more critical.

The staff expressed most concerns about storage space and the areas available for them to deliver their service. Comments included the following:

'Must be more difficult for nurses to observe all patients due to ward design.'

'Difficult to get Mobile X-ray machines in individual cubicles on ward.'

'Fairly nice to work in. Plenty of windows. Corridors and doors wide enough to accommodate beds.'

'Carpets are not a good idea. The smell and stains are not appealing.'

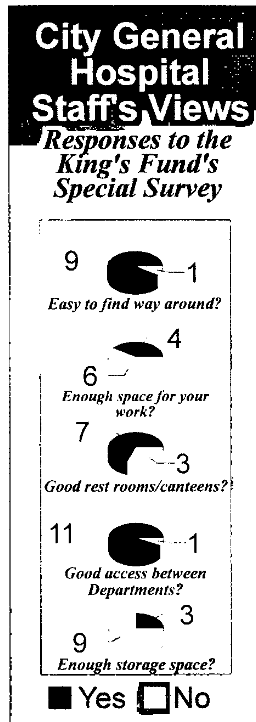
'Fire doors make it very difficult moving beds and machines.'

The staff restaurant seemed to be spacious and well designed and the staff that the judges spoke to clearly appreciated it.

Generally speaking, and despite the critical comments referred to above, it appeared that most of the staff felt that this important new hospital building met their needs and served the patients well.

The pie charts on the right give the responses to the Fund's questionnaire issued to staff in the areas visited.

Unfortunately, no nurses completed these questionnaires (or possibly the forms were not distributed to them by local managers) and so the responses must be considered in that light.



The judges' comments on the Surgical Buildings, City General Hospital, Stoke

The entrance and access arrangements for all patients, including the disabled, were very good. Patients coming in vehicles can enter under cover and (at present) there is good car parking nearby.

The reception desk is somewhat forbidding. In the rooms beside it, an internal redesign has been undertaken to improve the arrangements for patients being admitted and this change has improved privacy and general effectiveness. The day case recovery area seemed reasonable but not very private. There were no very convenient refreshment or telephone facilities for relatives fetching patients.

The main reception desk – fine if you are not in a wheelchair or need a seat

The signposting was neat and made a pleasing reference to Stoke's potteries; but although none of the patients responding to the Fund's questionnaire apparently had difficulties, the visiting judges thought these signs too small for those with poor sight and some staff told us that this causes patients difficulty. Circulation generally is good with wide, well defined and bright corridors.

To the judges, the ward areas were very disappointing. Typically of many Nucleus designs, there is no reception point visible to welcome and encourage visitors and hand written, often prohibitive notices seem essential – anyway they are often stuck almost everywhere. Once at the nurses' station everything is very crowded as the illustration on the following page of the children's ward shows.

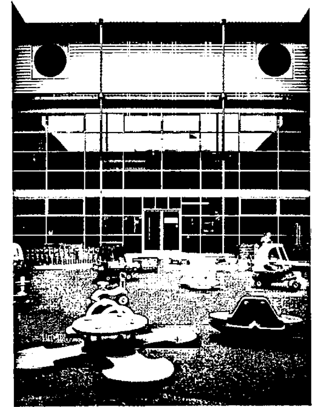
In Stoke, the ward outlooks could be attractive and interesting but most of the windows are too small. Where larger windows did offer excellent outlooks, as in the end wards, these had been covered with mesh curtains which reduced natural ventilation and made everything slightly gloomy and a little bit smelly.

The ward lighting was criticised by the judges and this is discussed later under the section on windows in patients' areas. Ward day spaces, however, were good on the whole, but relatively remote and not in sight of the nurses' station. Toilets and bathrooms were generally satisfactory and the patients commended them. Arrangements for patients' television viewing were very poor. On the wards visited there were several TV sets around but no coherent thought at the design stage appeared to have been given to how patients' individual viewing choices would be met.

Congestion at the hub of the ward plus all the signs of inadequate storage

There are no outpatients clinics in these buildings at the City General which resulted in the X ray department having a peaceful air; but if several patients are waiting in their beds then space is at a premium. The internal corridor design of this department seemed confusing and we were told that it is sometimes difficult to locate patients.

The main corridors were spacious and had fine windows with some good views overlooking the very attractive landscaping. These windows were clearly appreciated by the patients and make a very welcome contrast to many more traditional corridor designs in older British hospitals.



A successful children's play area between the wards

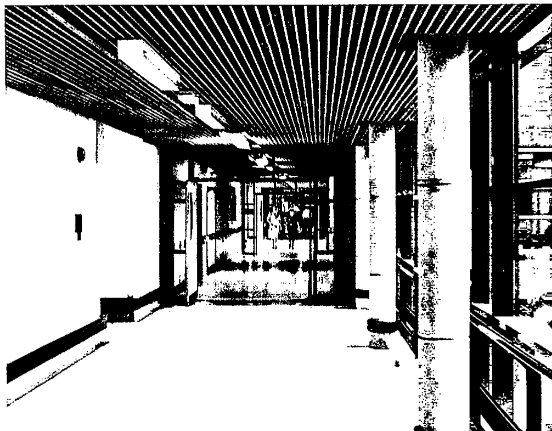
Some excellent points were the children's play area in a safe place between wards and the outstandingly good planting around the buildings. This had well chosen contrasts in size and colour and a pleasing variety in leaf texture. The staff restaurant was unusually pleasing and spacious. The light and airy corridors are very cheering but there is little use of artwork apart from attractive ceramics provided by local charities. The surgical packing area is spacious and light. The lifts seem well located and efficient.

The deeply overhanging eaves shadow the courtyards and limit the light entering the wards even though they do provide shade from any bright sun.

The judges were told that there was no Development Control Plan when the Surgical Buildings were designed, with the result that there is only one site available for the planned

expansion. This will result in the abandonment of much of the closest parking area for patients. This is unfortunate for patients and visitors, perhaps particularly so with an increasingly active short stay surgery programme.

Overall, however, there are many good things about this development. The judges decided that it deserved commendation. Some further views of this attractive development are shown overleaf.



The main corridor with plenty of windows

Part of the outstandingly well planted grounds

Sculpture in the courtyards

A happy combination of planting and brickwork

A Commended Design – The West Dorset General Hospital, Damers Road, Dorchester, Dorset DT1 2JY

Architects:
The Percy Thomas Partnership,
13 Whiteladies Road,
Clifton,
Bristol, BS8 1PB

The West Dorset Hospital was opened in 1987 by HRH Prince Charles and is the first phase for an eventual 440 bed general hospital. The hospital is sited on ground that rises quite steeply to the rear and future phases will be further down the sloping ground.

The information accompanying the entry form said:

> *'The design is seen as successful in that it helps enhance the quality of care given to patients in a way that acknowledges a new role of hospitals as civic focal points whilst providing a reassuring and welcoming environment. . . . The overall design intention of Phase 1 was to create a self contained, stand alone hospital, that would establish a pattern for future development on the site.'*

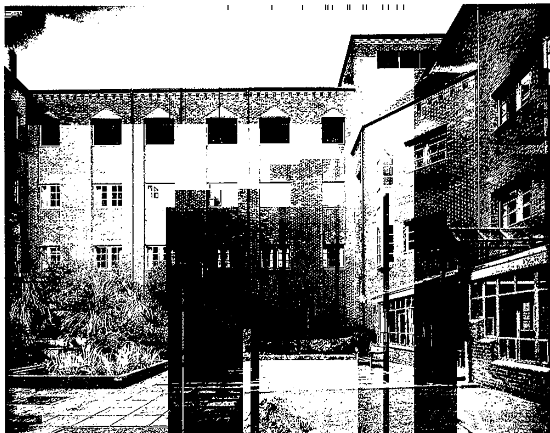
Phase 1 has 160 beds including a SCBU, a maternity unit, a central pathology laboratory and diagnostic imaging. There is, at present, a good car park for patients adjacent to the main entrance, but future phases will be closer to the principal entrance to the site off Damers Road and the judges were informed that some of the car parking will be lost.

The judges were told by the applicants that:

> *'gables, oriel windows, brickwork detail, colonnades, pitched roofs and balconies combine in empathy with surrounding architecture, with bright colours giving clues to the quality of the interior design.'*

The main entrance – only under cover if you come in an ambulance

The design is undoubtedly strongly accented. The building as a whole continues the themes of the strong coloured brick, cobalt blue guttering and the scarlet window and door frames throughout. Sometimes this works well but at other times it seems somewhat overpowering.

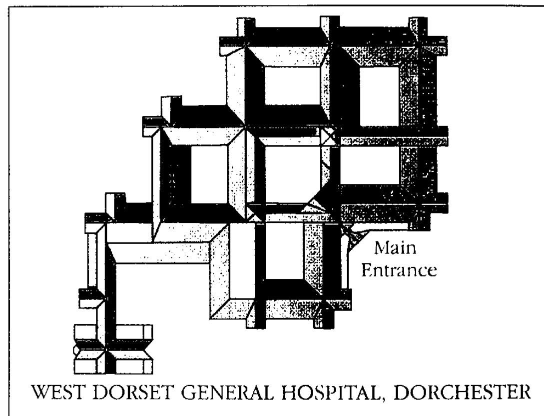


One of the deep courtyards – engineering plant is in the top storey

This strong style is particularly noticeable in the deeper courtyards. Florence Nightingale, as on so many topics, held firm views on courtyards, which may still be true:

> *'Even in the true pavilion structure, unless the distance between the pavilions be double the height of the walls, the ventilation and light are seriously interfered with.'*[12]

The site development plan for this phase of the hospital uses courtyards linked by corridors. The buildings are of different heights to accommodate the contours of the site which slopes quite steeply. Naturally, the deeper courts are found at lower levels on the site. Many of these have extensive and very successful planting schemes. However, the judges were informed that access to the gutters or windows for maintenance presents considerable difficulties because plant has to be introduced through the hospital corridors.



[12]Nightingale, Florence, *'Notes on Hospitals'*, London 1863.

A lattice work staircase with numerous surfaces to be cleaned

Inside the main entrance patients and visitors are greeted by guides and hostesses, who are necessary because the reception area and lifts are not readily visible. Instead people arriving are faced by a steep staircase which by the floor above has a lattice style guard rail.

This use of lattice-work is a continuing theme throughout the building, internally and externally. Lattice-work covers some of the nurses' stations but, even if this is considered an attractive feature, the judges were told that crane flies get trapped there in the summer. Outside the trellis creates a slightly oriental atmosphere in some of the external walkways.

Within the building the wards and corridors are carpeted which creates a quiet and calming environment. The corridors are wider than usual, in order that patients can be moved on their beds instead of on trolleys – a thoroughly good practice.

The corridor ceilings are unusual: the apparent ceiling conceals pipework above and is made of a wooden mesh and each area is painted a different, strong colour. A valuable feature both visually and as an amenity is the presence of window seats at various regular intervals along the corridors, encouraging people to stop and chat or giving patients somewhere out of the ward to take a break.

The hospital corridors, and indeed the whole building, make good use of artwork; indeed in the grounds there are some sculptures by Elizabeth Frink who lived near by and these form a delightful feature in the well planted gardens and courtyards.

The corridors are all carpeted which helps to create a quiet atmosphere. On the whole the carpeting appeared to be up to the task, but in areas of heavy traffic, such as outside lifts, there was some evidence that a tougher flooring might have been wiser in these locations.

Some of the views from the windows are quite spectacular, across parts of Dorchester and beyond, or into interesting courtyards.

The corridors have strong coloured 'egg crate' ceiling panels

Some of the effects are spectacular

What the patients think of the West Dorset Hospital

The patients described their quite varied initial impressions, particularly about the colour scheme, as follows:

> *'Excellent.'*
>
> *'Good, but more car parking spaces needed and less gardens space. Paintwork rather startling.'*
>
> *'Excellent apart from the outside colour scheme.'*
>
> *'Bright and colourful, cheery.'*
>
> *'It looked new and almost tacky from the outside, but "it grew on me".'*
>
> *'It looked very impressive and like a new hospital – good colour scheme.'*
>
> *'Smart (looks rather Legoland-ish).'*
>
> *'Bright, colourful and comfortable.'*

Patients commented freely on the design and generally were impressed:

> *'Very good.'*
>
> *'Superb.'*
>
> *'Very well laid out. More toilets needed on this ward.'*
>
> *'Quite impressed – the layout was quite compact and homely with only six to a ward.'*
>
> *'The design is very good with statues visible from most windows and gardens from others.'*
>
> *'I think your design is brilliant; it is much better to break free from the type of architecture that older hospitals have, which is bleak and mundane.'*

Patients also gave their views on a number of issues of importance to them. They were asked to state which factors relating to the areas they used regularly deserved to be commended. The commendation levels can be seen below.

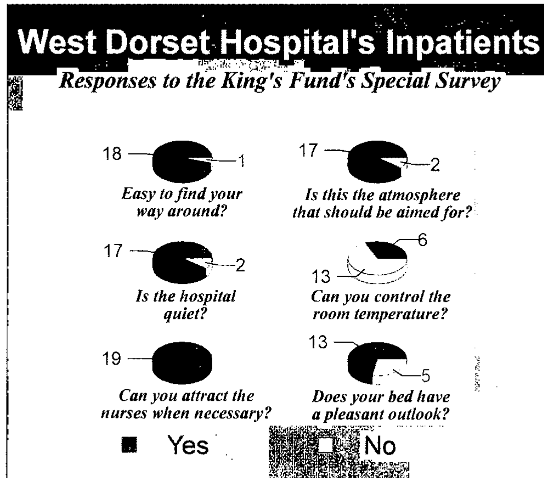
Area	Privacy	Space	Facilities
Bed	89%	58%	74%
Day areas	58%	63%	58%
Examination/treatment rooms	74%	53%	53%
Bathrooms	95%	79%	79%
Toilets	84%	74%	63%

The patients' satisfaction levels in West Dorset were exceptionally high. It is necessary, once again, to make the same qualifications about the relatively small numbers of responses received that are made in the other sections on these five hospitals. This small response is partly due to the questionnaires only going to wards and areas visited by the panel of judges; but low response levels are also a regular problem with any patient satisfaction questionnaires.

However, the patients' commendations in the West Dorset General Hospital were, as the table above shows, very remarkable. They were the highest out of all five hospitals

commended by the judges except for space in the bed areas where the hospital scored a close second, to the Wellington. All involved in this design can be very pleased at how satisfied the patients are.

As shown in the pie charts, the patients responding were also generally very pleased with the design, but with less satisfaction with their views from the windows and their ability to control their ward or bedroom temperature.



What the staff think of the West Dorset Hospital

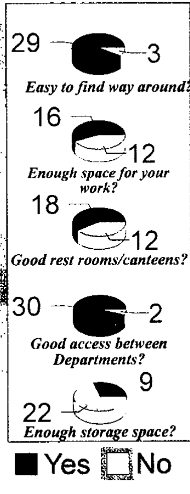
The staff had very much more mixed opinions about this hospital than did the patients. The supportive comments included:

> *'Pleasing to the eye – good for fire evacuation and control.'*
>
> *'Very good.'*
>
> *'Pleasing, easy on the eye, quiet and spacious.'*
>
> *'It's an improvement on the older hospitals.'*
>
> *'Not the usual type of design for a hospital which makes it a more relaxed environment.'*
>
> *'I think the hospital is a lovely place to work. It is very modern in design and the arts in hospitals project brightens up otherwise bare walls.'*

The criticisms from the staff at West Dorset were quite varied. Whereas the patients here had been very pleased with most of what they encountered, there was a surprising volume of critical responses from the employees, of which the following is a sample.

On overall layout and access between departments:

> *'It is difficult to find your way around initially. You feel like you are going round in circles!'*
>
> *'Very confusing for several months. Difficult to appreciate that when you go up a flight of stairs you are at ground level at the other end because built on a hill.'*
>
> *'Hard work with wheelchairs and beds.'*
>
> *'Complicated.'*



'Obstetric hospitals are always on top of a hill! Long slog up driveway.'

'Parking impossible, security out of hours improving but lots of dark corners.'

On the building's design and finishes, externally and internally, once again the staff were quite critical:

'Outside – different – don't like "crayons". Inside – don't like the ceilings.'

'I think the outside is off-putting. Looks like a prison.'

'The ceiling squares design around the nurses' station is always dusty and difficult to clean.'

'Ceilings very dusty and difficult to clean in corridors because of design.'

'Wastes a lot of space.'

On ward areas:

'The SCBU is poorly designed, rooms too small, and any private areas have been taken over by other departments.'

'Could do with an office in post natal ward for counselling. Delivery rooms are too small.'

'Open wards (here 4-bedded) are quite friendly but just curtains between beds doesn't make it very private.'

Other staff comments included the following:

'Purpose has changed too much since the original design.'

'Poor natural light in offices. All should have accessibility to direct sunlight. (It gets bloody depressing in winter.)'

'They didn't seem to take into consideration the quick growth of the hospital throughout.'

It is fair to say that many of the staff who the judges met during their visit were more complimentary than would be expected from the above remarks, although a few still expressed criticisms.

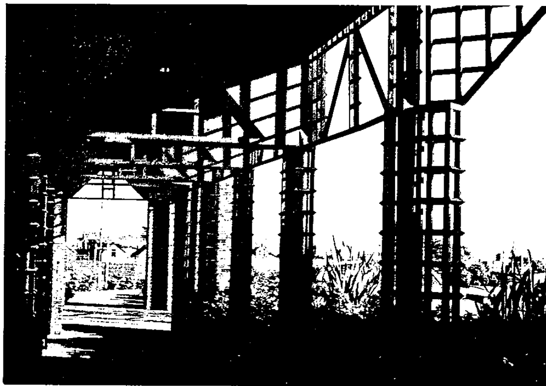
Just as the patients' satisfaction in this hospital was the highest encountered, so were the criticisms of the staff more strident than elsewhere.

In the end, of course, the judges always made up their own minds about the hospitals, although they carefully considered both staff and patients' expressed views before reaching their decisions.

The judges comments on the West Dorset General Hospital

The design of the hospital is innovative and it presents an exciting image as one approaches. It is clear that much thought has been given to producing some new solutions and they do have considerable impact. Nevertheless, in the end, the judges were slightly disappointed by this building for which there had been considerable hopes.

The initial impact of the design is, in the view of the judges, spoiled by the adoption of too many currently fashionable ideas, such as the extensive trellis work, the rather startling colours, the heavy gabling, the oriel windows and so on.



More lattice work on some exterior faces

These might have been much more successful if used more sparingly. Taken together, they are a little overwhelming and work less well.

Looking at the overall use of the site, the preparatory arrangements for communications links with the next phases seem to have been well thought through. The present relationship of the new buildings with car parks and landscaping is successful, but unfortunately it appears that future phases of this hospital's development will reduce the benefits of these existing interrelationships.

The hospital is very fortunate in having a strong art committee and the results are much in evidence. The good use of planting and sculptures in the courts is very welcome and valuable. An interesting idea which others could well copy is the adoption of a theme for many of the different courts. Here some examples are a water garden and a bird garden. As referred to earlier, one court is graced by a sculpture by Elizabeth Frink and others have different artworks. Some of the courts have excellent planting which not only gives pleasure but which can reduce cleaning costs.

The hospital is built on a steeply sloping site which creates some difficulties in design terms. A diagonal courtyard arrangement of the buildings is in essence quite a good solution, but some of the potential benefits have not been realised. For instance, there is little use of interesting views across lower courts and the total building solution simply has more storeys added as the site falls, with the deepest courts also suffering from a floor housing plant being added on the top. The street layout is basically simple but the changes in site levels make it somewhat difficult in practice to find one's

way, as some of the staff commented. The use of volunteer guides for patients has been adopted as a good way to overcome these difficulties and provide a good welcome.

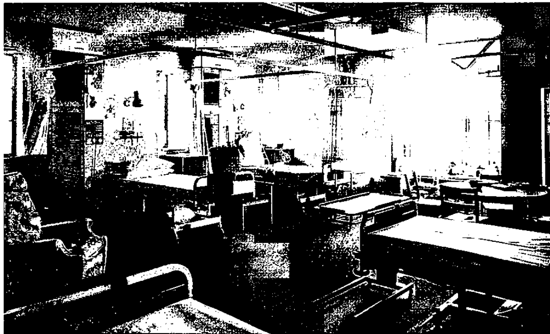
As with all hospitals today, changes of use are frequent and it appeared that the generous sizing of this development overall has made that relatively easy to achieve. At the time that the judges were visiting the hospital a considerable reduction in the area allocated to the pathology services was being implemented to meet other pressures on space.

Some of the very good features in this hospital include the construction of oriel windows incorporating small seats along the corridors and the greater than usual width of these hospital streets. There is a considerable amount of circulation space and the corridors themselves are wider than is usual. The result gives a very pleasant feeling of spaciousness together with good views.

Whether one likes the external colour scheme, with its bright red windows, blue gutters and the strongly mannered structure, is ultimately a matter of personal choice. It is certainly courageous and striking. The judges were told that white windows and a less assertive colour for the brickwork have been chosen for the next phase of the hospital's development. But this hospital is exciting and stimulating. It shows how new ideas can be introduced into NHS building.

The next two pages give some more detailed examples about the successes at the West Dorset. Many of the design solutions are beautiful even though they have not always achieved sufficient practicality. But the whole design thoroughly merits commendation in the King's Fund Design awards for 1993.

Undoubtedly a brilliant design – but is it good for less mobile people?



Good main windows and locker spaces but the small windows are deeply recessed

Some beautiful planting in the courtyards

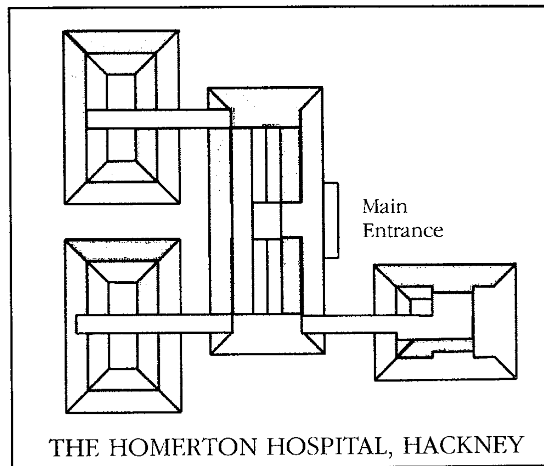
The design is very confident – you either like it or you do not

A Commended Design – The Homerton Hospital in Hackney, North London

Architects:
YRM Architects and Planners,
24 Britton Street,
London, EC1M 5NQ

This hospital development has 398 beds plus Intensive and Special Baby Care Units. There are also out patient, A&E and radiology facilities.

A very successful mix of planting and sculpture in the courtyards



A delightful feature of the Homerton Hospital is the very sensitive use of spaces and planting between the buildings. This element of the design has been further exploited by an outstanding local Art Committee which has introduced sculptures and other art works externally as well as internally.

The entry form for the Fund's competition said:

> *'The design impetus behind Homerton Hospital was two-fold. Firstly to provide a building not only dedicated to the science of medicine but also to the art of care: the building should provide a reassuring, inviting and friendly environment. Secondly, in an area well known*

for its urban deprivation, to provide a building which would stand as a hallmark of the best of contemporary architecture.'

The hospital design has created courts which are well planted and the massing of the buildings is undoubtedly sensitive to the local environment.

The picture below shows another imaginative but, unfortunately, currently unused detail of this very successful relationship between building design and planting – plant trays outside the ward windows. The new Chief Executive has, however, assured the King's Fund judges that these flower trays will be brought back into use shortly. It need not cost much: patients, visitors and hospital friends would all enjoy keeping such small delights available.

As the illustration below shows, the hospital is in a densely populated part of inner London. Many of the other hospitals commended by the judges in this competition had attractive surroundings which could be exploited. There were no such opportunities in the case of the Homerton Hospital and the designers have therefore tried very successfully to create an independent and attractive local environment.

There are plant trays outside the ward windows – a bit neglected at present, but a good idea

The aerial photograph shows the surrounding townscape – but delights have been created within the hospital grounds

What the patients think of the Homerton

Patients clearly form a good initial impression of this hospital. Some of their comments were:

> *'Very good; relaxing.'*
>
> *'Good.'* (a frequently expressed response)
>
> *'Very warm and friendly welcome; It impressed me as well organised and clean.'*
>
> *'I was impressed with the art work, airy clean hallways, also no hospital smells.'*
>
> *'Light, airy and clean.'*

When asked specifically about the hospital's design 81 per cent of the patients responding said that it was easy to find their way around the hospital and a number made more general comments on the design:

> *'The best. Large windows, the shrubs outside each window, the bright paintwork and space given for each person was great for patient morale. All hospitals should be designed with these factors in mind.'*
>
> *'Very nice.'*
>
> *'OK, not bad.'*
>
> *'Fairly good, although corridors are very long.'*
>
> *'A lot better than the old pre-war (II) type of long impersonal wards that I recall.'*

Patients were asked to identify some detailed design factors which they considered to be good about the areas that they used. The areas and the percentages of our sample that commended the following specific factors were as follows:

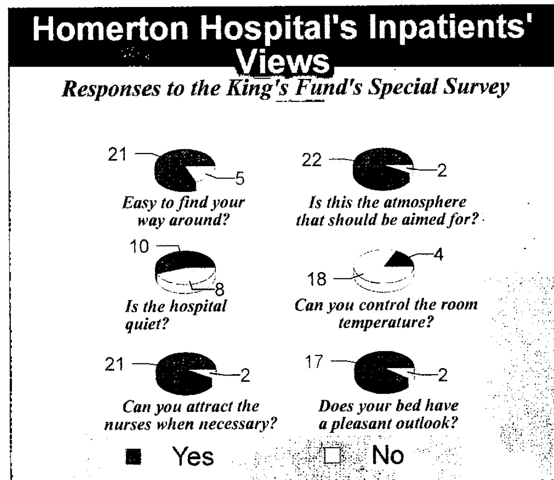
Area	Privacy	Space	Facilities
Bed	40%	50%	32%
Day areas	14%	21%	11%
Examination/treatment rooms	18%	25%	18%
Bathrooms	36%	36%	29%
Toilets	32%	29%	25%

It can be seen that few patients commended the day areas or the examination and treatment rooms. Overall, the above scores are not particularly high. They were, in fact, the lowest in the commended hospitals in the Fund's competition. But the Homerton Hospital was also one of the oldest entered.

It would be good to think that later British designs in general have more features that are commended by the patients, as the Fund found in this competition.

Patients at the Homerton in the wards visited by the King's Fund judges were also asked for their views on certain specific questions. The pie diagrams show their answers.

As ever, in this particular project, it is important to realise that the figures quoted are not statistically significant, but that does not mean that they are uninformative. They do accord generally with what was said to the judges during the hospital visit. As can be seen, patients have little control over the temperature and do not find the hospital quiet.



The views of the staff

The judges were impressed by the high levels of satisfaction that the hospital staff at the Homerton expressed.

Some areas were congested, such as the neonatal intensive care unit but the doctors and nurses were clearly coping well and seemed to be enjoying their work. Of course, visitors often are given a rosy-hued set of comments, but all of the judges are used to visiting hospitals and could make sensible allowances.

In response to the King's Fund questionnaire given to staff working in the areas visited by the judges, the staff expressed most concerns about storage space and rest rooms and canteens. Although a high level (72%) of those replying to the question *'Is there sufficient space to deliver service?* said *'Yes'*, nearly half claimed that there was too little storage space.

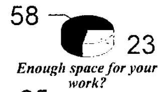
It is easy to allege that staff will *always* want more storage space, but most wards in the NHS do have equipment cluttering the corridors and not all the staff can be blameworthy. At the Homerton it was apparent that staff had insufficient space to store much of the equipment that they use. This is not very surprising in any hospital which has been open a few years because, for example, the use of disposables has grown greatly almost everywhere and earlier discharge policies result in the use of more mobility aids.

In the Homerton, as the judges found elsewhere during this competition, the other area of concern expressed by the staff was that the facilities provided for them were felt to be inadequate.

Homerton Hospital's Staff's Views

Responses to the King's Fund's Special Survey

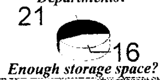
Easy to find way around?



Enough space for your work?

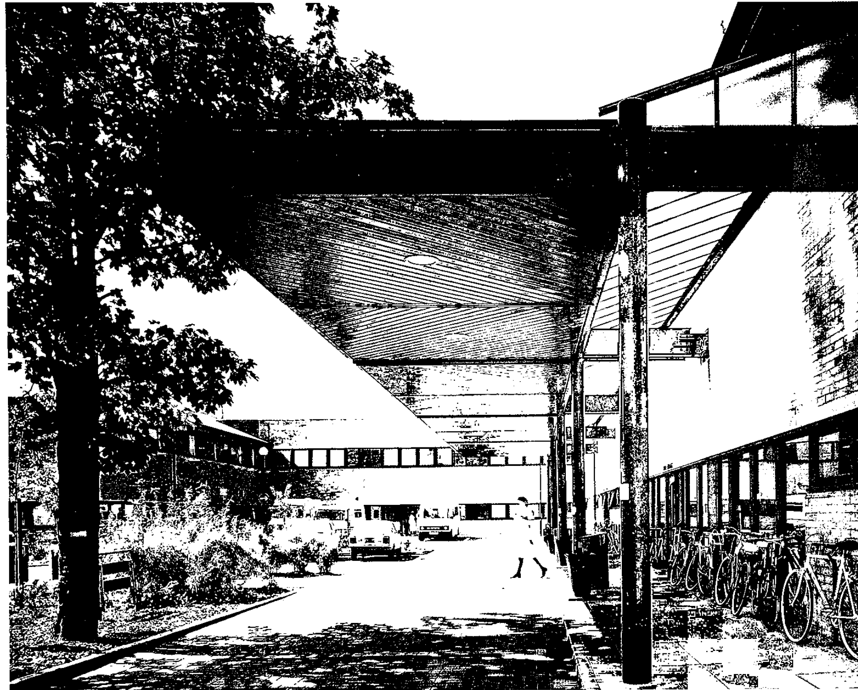
Good rest rooms/canteens?

Good access between Departments?



Enough storage space?

■ Yes □ No



How important trees are! This view would be much less attractive without one.

The judges' comments on the Homerton Hospital

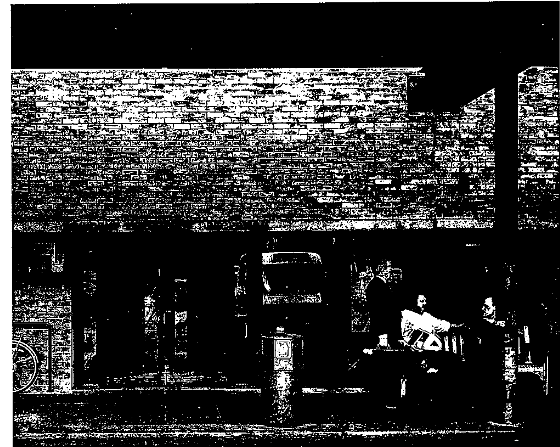
The main entrance is not very welcoming

The original design intention for the Homerton Hospital was quoted earlier. Broadly speaking, these objectives seem to have been successfully achieved but, as is so often the case they can easily be jeopardised by managerial actions. As an example the designer's intention that the hospital appears 'inviting and friendly' is somewhat spoiled by the main entrance shown above and by the restrictive notices outside and on the doors.

The depressing dun coloured main doors with a heavy looking wall above are only relieved by the welcome but inadequate addition of the ceramic artwork. Inside, visitors are greeted by a very unsatisfactory out patients' waiting area – which it is fair to say is now planned for reprovision.

Somewhat similar criticisms about the approach seeming gloomy can also be raised about the existing Accident and Emergency Reception which is also not very welcoming.

However, the external appearance of the hospital overall is



The same is true of A&E

very different from the entrance and extremely pleasant. The hospital is located in a relatively deprived urban environment, yet there is a welcome lack of graffiti. Several patients were outside enjoying parts of the grounds when the judges visited and they are also clearly a major amenity for visitors and staff.

A delightful fountain in a courtyard

The nearby beds are a long way from any windows but at least they are not backing on to the window walls

The judges critical comments were relatively few. They did not like the interior colouring, which was very standardised and rather monotonous. But the environment benefitted enormously from the widespread use of pictures within and sculptures outside.

The ward areas generally seemed successful and the patients and nurses spoke well of them. The ward lighting came under some criticism from the judges and it appeared that electric lights were needed everywhere even on sunny days. This general topic is discussed under the later section on windows in patients' areas.

A particularly successful part of the design was the education centre. This demonstrated how a well designed top lighting scheme can be used to create a delightful environment.

Hackney residents can be proud of the Homerton Hospital. It is an excellent example of a high quality hospital environment, with an exceptionally good use of the spaces between buildings, in an urban setting.

Pleasantly dappled areas for patients, visitors and staff

Very successful top lighting in the Education Centre

A Commended Design – The Royal Brompton National Heart and Lung Hospital, London

Architects:
Watkins Gray International,
Alexander House, 1a Spur Road,
Orpington, Kent BR6 0QR

When asked how this building provided what the Fund was seeking, the entrants wrote

> *'Flexibility in use. Nursing care in ward areas efficient due to good internal layout. . . . The environment within the building is quiet with nearly all occupied areas having natural light and ventilation.'*

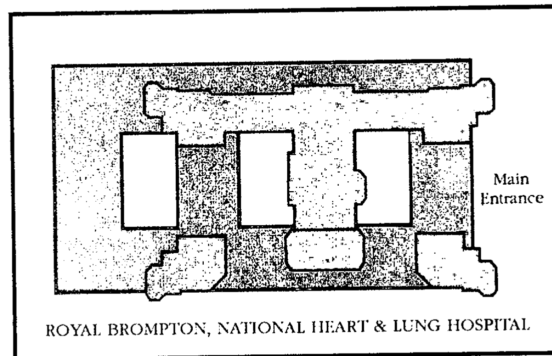
The Royal Brompton National Heart and Lung Hospital (referred to more simply as 'the Brompton' hereafter) has already demonstrated its flexibility and we were told of several successful changes that have recently been implemented, partly because it was decided to make no significant alterations during the main building contract. The Brompton does provide a calming environment for most of the patients, staff and visitors; in particular, the entrance hall – with its windows overlooking a small garden with sculpture, a fountain and a pool also has an attractive restaurant area nearby. This provided the best general reception area that the judges encountered.

The entrance has a rather small car park opposite, but has a good area where patients arriving by car or ambulance can be received – although unfortunately only partly undercover.

A pleasant fountain in the formal courtyard by the main entrance

The Chief Executive agreed with the judges that the lifts are probably too far from the main entrance for people who have difficulty with walking; but overall the whole reception arrangements clearly work very well. They provide an area which is obviously appreciated and used by visitors and staff. If patients have to wait for ambulance transport as unfortunately many do, this is a pleasant place in which to do it.

The main entrance, shop and cafe beyond



The hospital's design is based on three courts which are used to provide some planting and sitting areas as well as amenities such as the sculpture and pond shown at the start of this section.

The building as a whole has been constructed to very high standards and the appearance is professional and competent without being too clinical. As one moves around the building there are sufficient windows and an outstanding collection of artworks.

It is worth emphasising how very important for orientation pictures, plants, windows and good direction systems are to patients who can be overwhelmed simply by the size of modern hospitals.

What the patients think of the new Brompton Hospital

The patients initial impressions of this development were very good. Some of their comments were:

> *'Very good.'*
>
> *'Clean and bright.'*
>
> *'It looks more like a hotel.'*
>
> *'Modern, clean building.'*
>
> *'Warm, welcoming and helpful.'*

When asked specifically about the hospital's design there were several appreciative comments:

> *'Compact yet open and airy.'*
>
> *'Looks nice with fish and ponds to look at out of the window, and pretty ivy, but confusing to find way around.'*
>
> *'Well blended with surrounding area.'*
>
> *'A little strange – level 2 is ground level but nice layout and fountains.'*
>
> *'Impression of being designed as a hospital and not an architecture masterpiece to the glory of an "in" designer.'*

There were a few critical comments:

> *'No initial impression, more concerned with where to go and how to get there.'*
>
> *'A rabbit warren.'*
>
> *'Danger of getting lost.'*

Despite the last comment, most of the respondents said it was easy to find their way around. But the capacity of people to cope easily with the inevitable complexities of a modern hospital varies and the needs of old people, or those with poor sight, must always be remembered.

Several of the patients at the Brompton who did find the layout of the hospital confusing made constructive suggestions. One proposed that a 'map of the layout of the hospital should be displayed at different points', another said 'very confusing inside building – not very well signposted, signs need to be larger.' Some comments on other relevant topics were

> *'More space (needed) in day rooms.'*
>
> *'Eating facilities should be separate . . . patients eating can feel like animals in a zoo.'*
>
> *'Only television for most patients is in day room and visitors and new admittance patients are put in day room until beds are found, thus adding to confusion.'*
>
> *'Toilets – need to be a contortionist to get loo paper.'*
>
> *'Bed areas – bedside tables poorly designed for manoeuvring.'*

The staff showing the judges round emphasised the wisdom and economy of using one colour scheme throughout, but a final comment from one patient expressed a view, which despite their appreciation of the artworks in the hospital, was shared by the judges.

> *'The decor could be brighter and more cheerful.*

The judges talked to a number of patients during their visit and generally very high levels of appreciation were expressed.

Patients in single rooms were clearly more pleased with their environment than those in the general wards.

As in the other hospitals visited by the judges, patients were asked to identify some detailed design factors which they considered to be good about the areas which they used. The areas, and the percentages of our sample that commended the following specific factors, are set out in the table.

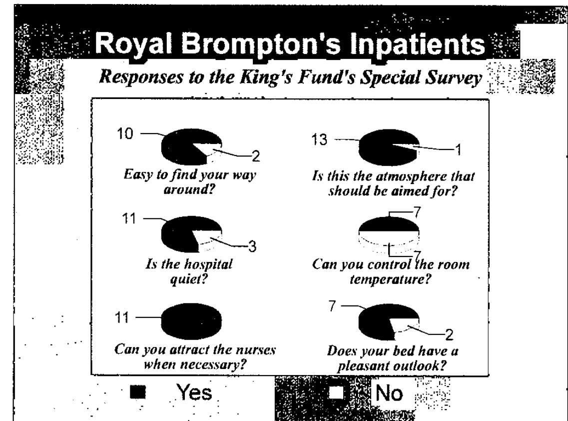
Area	Privacy	Space	Facilities
Bed	57%	50%	57%
Day areas	21%	29%	29%
Examination/treatment rooms	43%	36%	43%
Bathrooms	72%	57%	64%
Toilets	72%	57%	57%

It can be seen that commendations were lowest for the day areas and that the treatment rooms were less well regarded; but the marks of patients' appreciation for the bedrooms, bathrooms and toilet areas were generally high.

Patients in the wards visited by the King's Fund judges were also asked for their views on certain specific questions. The pie diagrams on the right show their answers.

In the King's Fund's small sample, 64% of the patients responding said that they would prefer to have a single room if they had to be admitted to the Brompton again.

The judges talked to a number of patients while visiting the Brompton. Many had recently undergone major surgery or had been treated in the catheter laboratories which are full of high technology equipment. Despite having been cared for in this rather threatening environment, the patients were clear that the type of facilities provided were what they should be. In particular, the patients appreciated the fact that post operative recovery areas had good windows and lighting.



The views of the staff

The Fund had many thoughtful comments from staff at the Brompton. Most were pleased with the general standards of accommodation but it was clear that moving patients around in their beds is not easy here:

> *'Only point that I feel lacking is automatic doors, or even doors that will remain open long enough to wheel a bed through.'*

> *'Doors . . . do not stay open long enough for patients' beds to go through.'*

The hospital has a spendid collection of pictures which enliven what could otherwise be drab

> *'The design of the hospital is quite good. You can get from one ward to another very easily.'*

> *'Visitors have difficulty locating lifts, wards, etc. Better signposting needed particularly at the entrance.*

> *Signposting is poor – frequently (we have to) aid visitors, strangers to departments.'*

Although there is a rather monotonous colour scheme throughout the hospital, one outstanding feature of the Brompton is the way artworks have been used very effectively. There are many pictures and they have been carefully hung. The overall effect is very pleasing and cheering as many of the respondents to the questionnaires noted.

One staff member's comment makes the point clearly:

> *'The art around the hospital is particularly attractive.'*

Royal Brompton Staff's Views

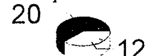
Responses to the King's Fund's Special Survey

Easy to find way around?

Enough space for your work?

Good rest rooms/canteens?

Good access between Departments?



Enough storage space?

■ Yes ☐ No

The judges' comments on the new Brompton Hospital

This hospital instantly impresses as a high quality building. Money seemed to have been well spent throughout. It is a good example of what can be done with some enhancement of the typical NHS capital funding standards. Despite some criticisms detailed later, the panel of judges had no doubts that the Royal Brompton National Heart and Lung Hospital deserved to receive their commendation.

The entrance is a little domineering but the brick is warm and the height is not overpowering. Most of the judges regarded the exterior as reasonably pleasing and quite appropriate for its location.

'The hospital building enhances and respects the urban setting', said one judge.

The canopy at the entrance is barely large enough to protect patients from the rain on gusty days; but once inside, the 'hotel' atmosphere takes over, and there is a welcoming and generally attractive environment for patients. The reception desk would be rather high for any patients in wheelchairs, but when the judges visited there were flowers on the counter and the reception desk was clearly much in evidence and in the right place.

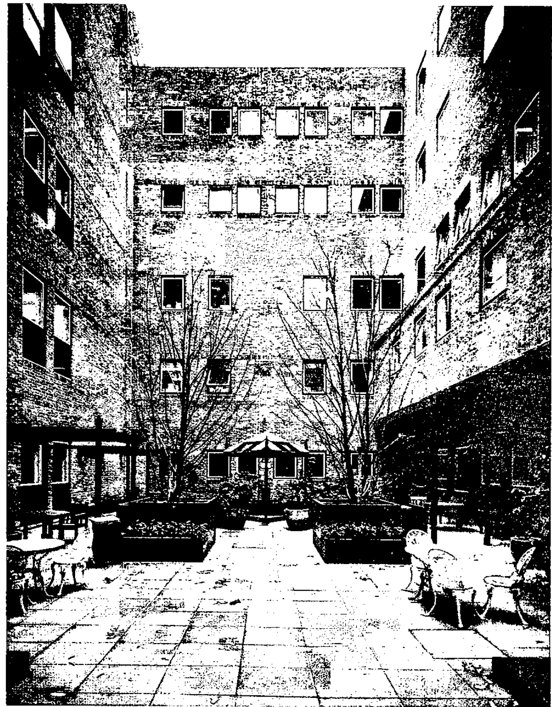
The main entrance – ambulance patients only are under any cover

The reception desk is immediately available but a bit high for people in wheelchairs

The ward areas also received varying amounts of approval. The ward entrances are adequate and not much more and signs saying 'Staff Base' are less welcoming than would be alternatives such as 'Enquiries' or 'Reception'. The windows are large enough to permit reasonable views of the urban scene if one is not in the beds farthest away, but sills tended to be too high to allow patients in bed to see much.

Not a bad ward, but a central window to the floor would have made a big difference

One can imagine how much more attractive these wards would be if one or two of the windows went down to floor level. The windows are already quite large, which creates a very satisfactory feeling of this having good natural lighting, which had been one of the Brompton design team's objectives; but the central columns spoil the effect.



The courtyards are very deep and the limited window opening can be seen

There is, however, a particular problem with the windows selected in this hospital. All of the ward windows are of a design which can only be opened a few inches, for safety reasons. The result is, as we were told by the staff, that the patients' rooms and ward areas are much too hot in the summer. The judges also noted in the dayrooms that they smelled quite strongly of the meals that had recently been served there. Some solution to the problems of achieving sufficient ventilation with safety needs to be found.

Apart from these criticisms the wards seemed to work well and the slightly larger space per bed due to the hospital's post graduate teaching responsibilities made an evident and beneficial difference. There was sufficient room around the beds for visitors to sit and talk reasonably privately, and presumably for teaching rounds. Despite this slightly larger footprint, some of the staff still said that they felt a real need for an additional area where patients or visitors could be counselled privately and, as noted above, patients felt that the day rooms had to serve too many purposes.

It was noted earlier that some of the patients and the staff commented on their difficulties in finding their way around. Generally, the sign posting is quite good but the judges thought that more, larger and clearer signs, particularly near the lifts would be helpful.

Some of the very good points about the Brompton included the high environmental standard in the intensive care unit. There are good windows, adequate space and better privacy standards than in many ITUs. Other excellent features include the high quality of the stairways and the dining accommodation. Within the Brompton, patients are moved on their beds and not trolleys, which is a very desirable feature, causing patients much less discomfort than being moved on and off trolleys. This good feature also applied to several other of the commended hospitals.

The Brompton is a 'hollow towers on a wide base' style of hospital and in an inner city setting this will sometimes be the only way to create areas for some planting and trees. The courtyards at the hospital are appreciated by both the patients and staff but, as the illustration on the previous page shows, the opportunity to do something splendid or imaginative in these courtyards has not been taken.

A slightly spoiled opportunity when a better landscaped solution could have created delight

Some of the other hospitals commended in this report have achieved much better landscaping.

The limited opening of the windows mentioned earlier can also be seen.

Despite these criticisms, the Brompton is a fine new hospital. There is much to be learned from its standards and design. Overall, the environment for patients is very good indeed and it fully deserves the judges' commendation.

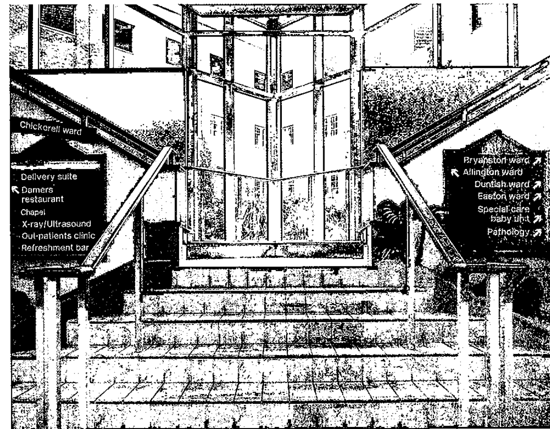
SELECTED FEATURES OF IMPORTANCE TO PATIENTS AND STAFF

Main entrances and patients' car parking

The entrance to any hospital cannot avoid transmitting two strong signals. The first is sent by the original design team for the building; the second by the present hospital managers. These messages tell visitors a great deal about how those commissioning the hospital wished it to be perceived and how visitors are now valued by those in charge.

In the past, many hospitals' entrances were beautiful and reflected the noble ideals of the governors and staff – but it has to be admitted that all too often they were desperately inconvenient for any patients who might be halt and lame. Today, functionality too often seems to be everything and idealism, beauty and the proffering of a courteous welcome to arrivals come far down the list of priorities. But why? Good design need not cost large sums of money.

There are several clear examples from this competition. For instance no once could doubt that the clients and the design team at the Wellington Hospital (North) gave priority at the entrance area to hospital delivery traffic and visiting consultants' cars. As noted earlier, the judges' consider that this entrance lets the hospital down. In the design, no attempt was made to indicate that this is a hospital with ideals, an institution to which people with healthcare problems can safely entrust themselves. If you are a pedestrian you are likely to have difficulty even finding the main entrance, hidden as it is at the rear of the building and in the shade. Nevertheless, at least patients being delivered in any vehicle to this hospital will be sheltered from the elements and, once inside the hospital the reception arrangements with an ordinary sized desk are very good for all visitors.



As a first impression, the staircase inside the main entrance at West Dorset is a bit daunting if you have any difficult walking

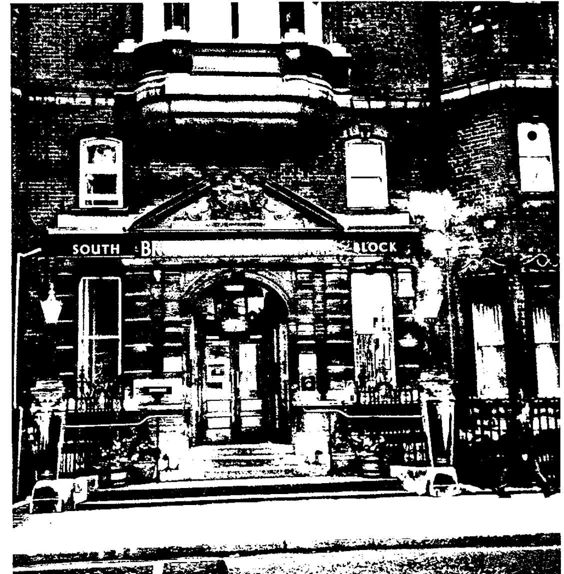
Another of the entrants to this competition, West Dorset Hospital, has tried quite successfully to produce a worthy

entrance. However, there is only a partially sheltered area outside for patients arriving by ambulance and none for those being brought by car – and one must remember that these will often be those walking with difficulty, or in wheelchairs, or on trolleys, or bringing children. To compound the problem, once inside the hospital, patients are immediately faced with a steep staircase. What message does this send to those who can only manoeuvre with difficulty?

The West Dorset Hospital is one of two entrants which has a development plan to build its next phase on what is now the well located patients' car park. Yet we know that almost everywhere the proportion of frail elderly people in the population is growing and that, in addition, the very old make a disproportionately high use of hospital services. Furthermore, whatever our opinions about them, cars are owned by an increasing proportion of people. Women with children and old people alike would prefer to be brought to hospital by people they know in a car, and a caring hospital will do all it can to facilitate that.

The other commended hospital in this competition which plans to build over the patients' car park is the City General at Stoke. Here there is at present a very adequate and successful covered area for patients arriving by vehicles. But there appeared to have been too little thought given at earlier planning stages to the question of how patients and visitors who walk with difficulty will reach the entrance when there is no adjacent car parking.

Although some of the judges did not like the Royal Brompton National Heart and Lung Hospital's front elevation, there is at least a small covered area at the entrance. One instantly feels oneself to be in good and caring hands, even though the patients' lifts are a little too far away from the entrance. However, despite the greater practicality, and the welcome absence of steps, whether the entrance is more beautiful than the old one is open to question.



The old Brompton Hospital South Block entrance

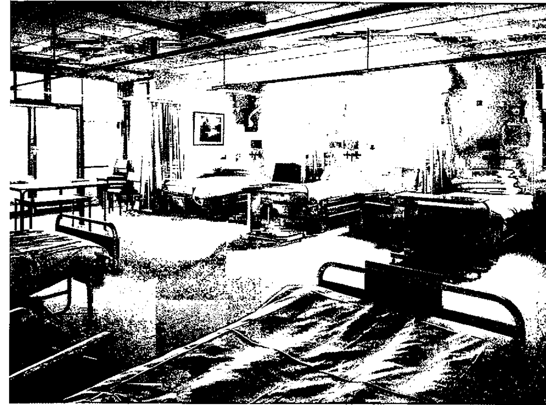
Windows in Nucleus and other wards

The siting and levels of windows, their size, shape and design are important in most buildings. In hospitals and their wards, they are especially important.

In, for example, a six bed ward, the window, or windows, should, among other things:

- let in daylight and let it reach deep within the room;
- reduce the need for artificial light and mechanical ventilation;
- reveal views (preferably pleasant views);
- allow, at the same time, a feeling of privacy and security;
- let in the best of the sun but be capable of screening the worst of it (dazzle and overheating);
- minimise sky glare;
- reduce glare indoors, caused by the contrast on an external wall of windows alternating with unlit wall surfaces. (e.g. by incorporating splayed window reveals and/or windows or clerestories in other walls or ceiling planes);
- keep out draughts;
- keep out intruders;
- be well made and look handsome;
- be flexible in their design and their fittings to allow them to cope with the sometimes conflicting demands made by the above (e.g. by using or incorporating curtains, blinds and sunshades); and
- generally bring joy.

It may not be possible, without great expense and ingenuity, to meet all of these sometimes conflicting criteria. With sensitivity and common-sense it should, however, be possible to meet most of them.



Good floor length windows mean you can see something from all the beds

Yet the problems are often more acute in a modern ward which, for mostly good reasons, is normally only about 2.7m (9ft) high, in contrast with the loftier wards in older buildings. High window heads (preferably up to ceiling level) allow penetration of daylight deep into the ward.

Deep reveals produce glare, and here the windows are blocked anyway because they provide the only space to store the small lockers

In the King's Fund Competition for hospitals completed during the last decade a fair number of entries were, not surprisingly, based on the standard Nucleus designs – or on variations of Nucleus. In many respects Nucleus can be an excellent system. But one of the most common, and justified, criticisms of it concerns the natural lighting and outlook in at least some of the six bed wards. In particular criticisms apply to those wards with only one external wall and which are, at the same time, on a lower floor where roof lights are not possible. Here, with three of the beds, Nightingale fashion, on the external wall, window positions and sizes are dictated not by the criteria listed above but by the limited spaces between bed-heads. Without roof lights and without an end external wall with windows letting in light from another, second direction, the main windows (even with their heads at ceiling level and with reasonably low sills) are too small; wall faces between the windows are in glaring contrast with them; and natural lighting at or near the back of the room is too dim. The potential advantages of energy saving derived from small areas of glazing are then inevitably negated by too much dependence on artificial lighting.

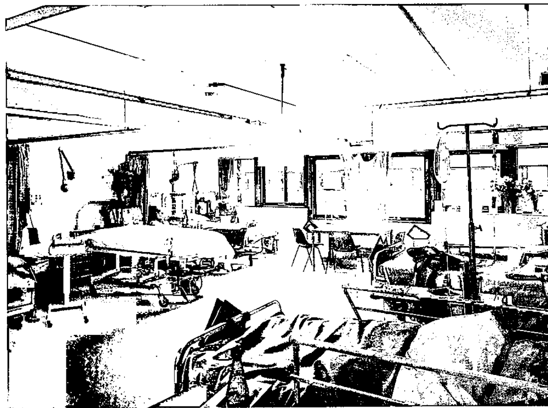
Careful siting of ward units can, however, reduce the number of six bed wards affected. At least one of the Nucleus hospitals recently completed (St. Mary's, in the Isle of Wight) has ingeniously reduced the number of six bed rooms affected (within a 28 bed ward) from four to one in lower floors where supplementary roof lighting is not possible. Another approach adopted in some other new hospitals is that the majority of wards are on the top floor, taking advantage of "windows in the roof".

Reacting against the above, some new hospitals have, while adhering to many of the Nucleus principles, adopted a different ward plan, allowing beds in six bed wards to be placed parallel with the window wall. The placing and width of windows is no longer restricted. One of the hospitals in the present Design Award submissions is an example of this

variation and the wards have handsome and well designed windows stretching from cross wall to cross wall.

However, in order to reduce the high area of glazing without having disagreeably high window sills, the window heads have been dropped well below ceiling level. At the backs of the wards the natural lighting is rather dim and has to be supplemented by a high degree of artificial lighting.

Another version of the above might be to reduce the width of the window (with splayed reveals at its junction with the wall) and raise the head to ceiling level.



Hardly an inspiring view for any of the patients

In the West Dorset Hospital there were small 'cottage style' windows in some single rooms, and these can initially seem very attractive. There were rather similar arrangements in the Brompton. However, these would be very unsatisfactory for any bedfast patients, as can be seen from the picture.

Attractive cottage style windows – but much too high if you are stuck in bed

Smelliness

There is really no adequate excuse today for new hospitals to be smelly.

It was not surprising that hospitals were smelly in the past when carbolic solutions were used to mop the floors, nursing practices less well developed and the absence of central heating meant that too many windows were kept closed. Many older people describe their unpleasant recollections of the hospital smells of yesteryear.

But even today, amongst the five relatively new hospitals which had been shortlisted, there were some which had some areas which were still, frankly, smelly. Sometimes this was in day rooms where inadequate natural ventilation left unpleasant odours from earlier meals; sometimes, particularly at the core of Nucleus wards, the smells were even more unpleasant.

Good natural or mechanical ventilation systems introduced at the design stage can, when allied to good staff practices, totally solve these problems even on wards where many patients are doubly incontinent. It is a matter which nursing and other managers can solve operationally. But it is much better when they are helped by good design. They should ensure that their requirements are made known to all of the design team at the planning stage. Day rooms need not smell of stale cooking and ward areas need not remind one of something worse.

Hospital smells should by now be things only of the past.

Art in hospitals

Three of the hospitals commended in this competition had active hospital art committees and the benefits to patients and staff were obvious and immense.

The King's Fund has encouraged and sometimes sponsored art projects in hospitals in London for many years. They make an enormous difference to the total environment and, as many of the quotations in this report testify, such enterprises are widely praised by both staff and patients. Provided that, on the whole, original works of art are commissioned or bought by the local committee then the artists are also helped to survive in what can be a very difficult world.

It need not cost much money. At times, charitable funds can be tapped, local government may help or local companies will provide some sponsorship. Some hospitals have also arranged to have pictures on loan from major national or regional collections. As a different approach, the Homerton has an arrangement with the Whitechaple Gallery under which there is a regularly changing exhibition in the out patients area. Other hospitals devise schemes with local artists or with nearby art colleges.

What follows from these initiatives can be a source of endless delight and inspiration as some of the illustrations in this book show. All of these schemes need long term commitment and so it is not successful when junior staff with short local career horizons are in charge. Provided that some senior staff, and perhaps Trust board members are prepared to make a continuing commitment, a steadily growing body of artwork will result with long term benefits for everyone.

Storage on wards for staff

Many of the wards visited by the panel had equipment, packs of dressings and so on littered around the corridors and outside patients' rooms. On closer inspection, it was usually easy to see that the storage provided in the original designs was simply inadequate. This is particularly true of standard Nucleus wards.

Many managers are cynical and claim that this will still happen no matter how much storage is provided – but this is only true if there is either too little storage or incompetent management. At the Wellington Hospital (North) the panel found no clutter and there was generally adequate storage for the equipment that the staff needed with the possible exception of the SCBU.

There will in future continue to be a great use of disposable dressings, bed pans and so on and these are bulky items. The very short times that patients now stay in acute hospitals mean that there is much more happening to the 'average' patient than in the past. More invasive technologies bring more disposable scopes and probes. Early ambulation policies require more walking frames.

It all means that more well designed storage space on the wards is now needed by the doctors, nurses and therapists than has historically been the standard.

Design teams need to take these requirements into account and ensure that an adequate provision is made.

Storage on wards for patients

But, in addition to the staff, the patients also have their needs which unfortunately are seldom met even in modern hospitals.

Most of us change our clothing every day, partly for reasons of hygiene but also because we like to do so. It should be possible anywhere for patients to keep at least one change of clothing and their street clothes by them. This is particularly important now that many patients only stay 24 or 48 hours, but it is also reassuring and valuing for patients who will stay longer. Why should patients be required to have someone take and fetch their clothing? Why should not patients be able to get their personal clothing laundered even if they have to pay for it?

Patients are normal people with complex and important personal lives who are temporarily in need of care and treatment. Patients need to maintain their external lives, pay bills, keep up with family or friends. They should be able to have some of their personal possessions with them – a little money, books, papers, writing materials, photographs, handbags, flowers, possibly some hobby materials, perhaps their own radio or television and some personally preferred drinks or foods. A small bedside locker is totally inadequate.

It is easier to achieve this in single rooms, but often in the NHS the opportunity is not seized even then. It was only in the Wellington Hospital (North) that the patients were helped by the design to continue to lead independent lives.

Design in urban settings

Sites within inner cities pose very different planning problems from those found in the broader expanses of rural settings. Both present challenges and opportunities. Each requires the early preparation of organisation specific operational policies and site specific development control plans if disappointment is to be avoided. These are needed long before the designs of individual hospital buildings begin to emerge from the architect's drawing board – or computer.

This all seems blindingly obvious. But the field evidence suggests otherwise.

There is difficulty in relating a very large user like a hospital to small scale environments, particularly in city residential areas where the height of the surrounding houses is usually low and where the hospital buildings will be comparatively massive.

Some of the designs considered in this competition had handled many of these relationships very well but others had simply ignored some of the problems. For example, the scale of building development at the Homerton sits very well in its community and there has clearly been a deliberate attempt to create a high quality environment internally despite the impoverished surroundings. The Wellington (North) Hospital is uncompromisingly modern, yet it sits well within its local community and does not dominate it.

These designs show what can be done and deserve recognition.

FUTURE KING'S FUND DESIGN COMPETITIONS

The Fund will continue to encourage excellence in hospital design. There is no reason why hospitals should not be beautiful buildings and offer patients a genuinely pleasant environmental experience. It is at least probable that achieving such standards would be economically beneficial for any hospitals as well as being important things to do in their own right.

Although there have been some very good features in each of the hospitals which were commended by the panel of judges it is fair to say that the design of large acute hospital schemes still seems to present daunting challenges.

In many of the other entries considered, and particularly in the ward and outpatient areas, conditions for patients were not as good as they should have been. It was partly because of the clear evidence that care had been taken in the design of the facilities for the patients that the Wellington Hospital (North) was given the Fund's Design Award for 1993.

Hospitals' entrances everywhere also still seem to present some problems. Patients being brought by car (and many patients are old and may walk with difficulty) would often be unable to alight under cover. Many entrances were covered with prohibitory notices telling people everything that they must not do instead of making them welcome. Most were functional at best and reception desks were usually barriers with no seating for patients and far too high for anyone in a wheelchair.

In many other areas visited by the panel it appeared that low capital costs, or the operational preferences of the staff had been given much more priority than serving patients truly well, and that cannot be right.

Despite some good attempts, and there were some beautiful individual areas, none of the entries entirely met the panel's aspiration to find a beautiful, or at least genuinely pleasing, overall design.

The Fund intends to hold another hospital design competition in 1995 and would welcome comments or suggestions about what would be most useful.

It is certain that one category for the competition will again be acute general hospitals. This is not only because the capital invested in such schemes has been much greater than in other areas, as the survey of Carol Rawlinson and her colleagues referred to earlier showed, but because this competition has demonstrated that much still needs to be done to provide patients, and staff, with the quality of design that we would all hope to see.

However, the Fund could also consider, in a separate category, different types of healthcare designs, such as those for hospices, community hospitals and facilities for people with mental illness.

The Fund's resources are, of course, quite limited but suggestions before 30th September 1994 would be welcome.

APPENDIX A – THE PANEL OF JUDGES

Robert Maxwell

Robert Maxwell is Secretary of the King's Fund. He was previously the Secretary to the Special Trustees for St Thomas' Hospital. Before that he was a principal with McKinsey & Co. He is a JP and chairman of several institutions.

Dr Jo Adu

Consultant Physician and Nephrologist, The Queen Elizabeth Hospital. Member of the General Council of the King Edward's Hospital Fund.

Colin Amory

Architectural Correspondent for the Financial Times.

Professor Richard Beard

Head of Department of Obstetrics and Gynaecology of St Mary's Hospital School. Long standing interest in influence of the hospital environment on recovery from illness, combined with a concern about the low priority apparently given to aesthetic appeal in new British hospitals. Created, with a leading young designer, a new interior for the labour rooms of St Mary's Hospital.

Richard Burton

A senior partner Ahrends Burton & Koralek, a practice that has become well known in the medical building field for its work in the Isle of Wight at St. Mary's, the first low energy hospital and also described as the 'pathfinder' hospital for the nineties'. Integration of art and craft and landscape set new standards for National Health Hospitals. The same approach is now being applied to primary health care buildings by the practice.

Ann Dix

Ann Dix is Editor of Hospital Development magazine. She is a member of the Board of Directors for the US National Symposium on Healthcare Design, which aims to advance the contribution of design to the quality of healthcare, and is on the advisory board for Healthcare Arts.

Philip Groves

Chairman of Architects Co-Partnership Limited.

Joint author "Design for Health Care; hospitals and health care facilities."

Tim Poulson

Tim Poulson studied architecture at Sheffield University and joined the architectural practice of Yorke Rosenberg Mardall in 1964. He is currently Chief Executive of the building design practice, YRM plc as well as being a governor of the Building Centre Trust and Chairman of the Building Centre Group.

Sir Philip Powell

Partner of Powell and Moya, architects, 1946–1991 (Consultant to Powell Moya Partnership 1991–); Architect Churchill Gardens, Chichester Festival Theatre, Queen Elizabeth II Conference Centre, Westminster, several hospitals including Wexham Park, Slough, Maidstone and Great Ormond Street Children's Hospital New Wing (1994); Member, Trustee and Treasurer of Royal Academy of Arts; Member of the Royal Fine Arts Commission.

Marianne Rigge

Director, College of Health.

Marianne Rigge has worked in the consumer movement since 1970 when she joined Consumers' Association and worked on Which? magazine. She later worked at the National Consumer Council and in 1977 became founder director of a charity called the Mutual Aid Centre. In 1983 she and Michael Young set up the College of Health. Marianne Rigge is author of the Guide to Hospital Waiting Lists and directs the National Waiting List Helpline. She is a member of the Patients' Charter Advisory Group and has recently been appointed a member of the Clinical Outcomes Group.

John Vergette

John Vergette is Chairman and Chief Executive of Percy Thomas Partnership. He began his career with the firm in South Wales where he won a number of awards for his University Building. Moving to Birmingham in 1979 he has been responsible for several major hospital projects and for the international Convention Centre and Symphony Hall which has received international acclaim and a series of major design awards.

John Weeks

Nuffield hospital design research team report 1955; Partner Llewelyn-Davies Weeks 1960; Consultant 1986; Hospital design services planning and publications on hospital architecture internationally. Responsible for many major hospital designs.

Iden Wickings

Iden Wickings has spent 30 years working in health care, initially as a manager in London Teaching Hospitals and more recently as Director of CASPE Research and Chairman of CASPE Consulting Ltd. He has been a member and vice chairman of two health authorities and a governor of the London Hospital Medical College. He currently works part time for the King's Fund as Project Director but was previously the Fund's Deputy Secretary and also acting Director of the King's Fund College.

APPENDIX B – HOW THE PANEL OF JUDGES WORKED

The selection of judges

In any competition, the selection of judges is a crucial factor. The King's Fund was fortunate to gain the help of twelve experienced and distinguished persons to join its panel, which was chaired by Robert Maxwell, the Fund's Secretary and Chief Executive.

If, as the Fund always hoped, the competition would help to improve and develop standards of hospital design, it was essential that the panel's award and views would be respected by the architectural profession. The Vice President of the Royal Institute of British Architects was very helpful in early discussions about the competition, and the RIBA subsequently recommended six of their members to join the panel: Richard Burton, Philip Groves, Tim Poulson, Sir Philip Powell, John Vergette and John Weeks. Each of these architects has, as is well known, great experience in hospital design. This highly desirable characteristic, however, inevitably posed some minor procedural difficulties, because several of these architects or their partnerships had been responsible in the recent past for schemes which were nominated by their clients. The procedures that the panel adopted to overcome this difficulty and ensure complete impartiality in the judges' deliberations are described later.

The Fund also invited six other people with relevant experience to become judges. One of these, Professor Richard Beard of the Department of Obstetrics and Gynaecology at St Mary's Hospital Medical School, had played a major part in helping the Fund to commission the recent studies of hospital design which were referred to earlier, and he also had helped in the early stages of planning this competition. Other members of the panel were Dr Jo Adu, consultant physician Queen Elizabeth Hospital, Birmingham; Colin Amery, the architectural correspondent of the Financial Times; Ann Dix, editor of the magazine 'Hospital Development'; Pamela Hibbs, then chief nurse and now general manager at St Bartholomew's Hospital, London, who was nominated by the Royal College of Nursing but who, sadly, had to resign from the panel after a spell of ill health; Marianne Rigge, the director of the College of Health, and Iden Wickings, King's Fund project director. At key meetings, the panel discussions were also attended by Gordon Massey, a senior architect for NHS Estates.

The call for entries

Entries were invited for 'a national competition to recognise outstanding examples of hospital design, either in the NHS or the independent sector, which had admitted their first patients between 1st January 1980 and 31st December 1990.' Nominations could be put forward by any chief executive or by others with an interest.

Letters accompanied by a brochure describing the competition were sent to the chairmen or chairwomen of all NHS

Trusts and Health Authorities which had at least one hospital with a minimum of 150 beds, with copies to their CEOs. Similar letters were also dispatched to Regional Health Authorities and to the chief executives of independent hospitals. Nominations had to be authorised by a senior architect of the partnership or organisation responsible for the design of the hospital concerned.

The competition was opened to a wide range of entries deliberately, so that it could include acute, community based, specialist and longer stay hospitals; but a particular requirement was imposed relating to size. This was because the panel considered that it is much easier to design a highly successful very small hospital than a large one and that the greatest need to improve design and environmental standards can be found in the bigger developments. As a consequence of this requirement, the acute hospital developments submitted had to exceed 10,000 square metres whereas the other hospitals' developments were required to exceed 5,000 square metres.

The evidence collected from competition entrants and used in shortlisting

Entries had to be accompanied by plans and photographs and a brief statement describing why the sponsor considered the development worthy of a King's Fund award. Unfortunately, a number of the original entries had to be declared ineligible, either because they were too small to meet the stipulated size or because they had not admitted patients before the end of the decade specified.

Assuring indepedence in the panel's judgements

Each submission was considered individually. Shortlisting, and in due course the final selections, were achieved more easily than had been expected despite some wide divergences of opinion on some entries. The procedure adopted was also used at the final stages and had the essential feature that when an entry had been designed by, or had some specific link with one or other members of the panel, no personal interests could influence the results. With entries for which there was any personal involvement, the members concerned withdrew from the room entirely. After this had been arranged, one of the disinterested architects described what he saw as the strengths and weaknesses of the entry under consideration and there then followed a general and much wider discussion by all of the members of the panel remaining in the room. Finally, when all entries had been considered, the full panel reconvened. The chairman then summarised the members' views about all the entries, with considerable frankness, recommended what he believed to be the general view, and the panel's collective agreement was obtained.

Photography and plans considered during the competition

Arrangements for both the shortlisting and the final selection of hospitals worthy of King's Fund commendations depended partly on photographs. All of the contestants submitted photographs and some plans with their

entries, and gave the Fund permission to use these images during the judging process and in publications such as this. The Fund is grateful for the permission to use these, and many have been included in this booklet.

The hospitals that were initially shortlisted by the panel on the basis of the drawings and photographic evidence submitted were visited by the judges, and some hospitals were excluded at this stage.

However, the Fund also wanted to have some photographs of other design features, and commissioned John Edward Linden, a specialist architectural photographer, to visit each of the hospitals. Many of his photographs are also included in this publication.

Visits by members of the panel

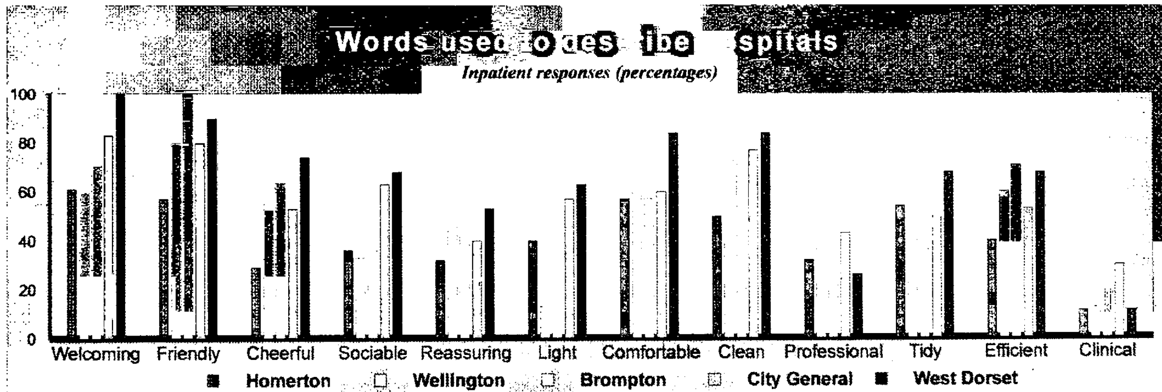
Between shortlisting and the final selections, each of the shortlisted entries was visited by several representatives of the panel and the visitors always included a mixture of architects and others. It had been decided previously that the architects of the shortlisted schemes should not be present during the visits and the panel members were shown round by local managers. Usually the visitors met the chief executive and sometimes also some Trust, Board or Authority members.

APPENDIX C – THE EVIDENCE COLLECTED FROM PATIENTS AND STAFF

While walking around the shortlisted hospital developments the visiting members of the panel of judges talked to as many patients and staff as possible. Often the judges learned important strengths or weaknesses experienced by people in the hospital from these discussions. It is very persuasive when one is told, with a passionate intensity, that 'everything is marvellous compared with (another) hospital' of which the person concerned had experience, or that 'the hospital is very noisy at night'. However, although the judges were all experienced hospital visitors and could make appropriate allowances for the strengths of feeling expressed by the individuals that they encountered, it was thought wise to gain a more broadly based 'snapshot' of the experiences of patients and staff in the areas entered in the competition and visited by the judges.

With the assistance of the local hospital managers CASPE Consulting Ltd on behalf of the Fund issued questionnaires to both staff and patients and analysed the results. In most cases, it should be emphasised, the responses fell far short of what would be needed to claim statistical significance. Nevertheless, the number of respondents usually exceeded the number of persons with whom the judges had been able to hold discussions.

An interesting element of the questionnaires to patients was suggested by Marianne Rigge. It asked the patients to pick words from a larger list which they felt appropriate to the hospital in which they were being treated. See results below.



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APPENDIX E – ACKNOWLEDGEMENTS

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Royal Brompton Hospital

Mr W Bain, Chief Executive
Mr D King, Capital Planning Manager

City General Hospital, Stoke

Mr S Gray, Chief Executive
Mr T Haywood, Estates Business Manager
Mr A Underwood, Director of Estates

Homerton Hospital

Dr Shelley Heard, Chief Executive

West Dorset General Hospital

Mr N Chapman, Chief Executive
Mr N Howard, Planning Manager
Mr K Butler, Estates Manager

Wellington Hospital (North)

Mr N Verneguaard, Chief Executive
Mr T Letham, Assistant Executive Director
Mrs E Stallwood, Assistant Executive Director/Nursing

Sir Philip Powell

for help with the section on windows

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John Linden

Architectural Photographer

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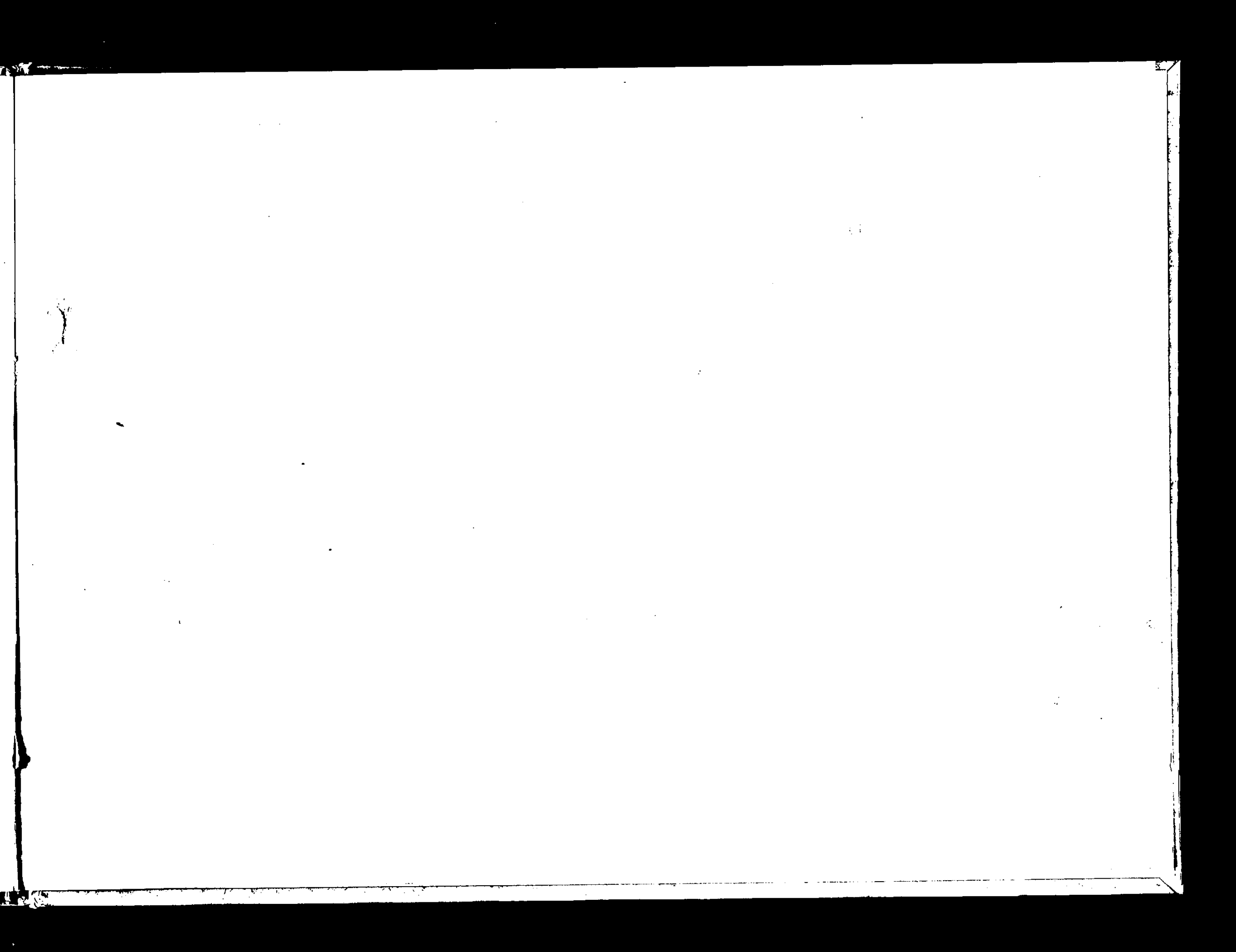

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