

Smooth Operators



The Cutting Edge of Clinical Practice & Technology

Architects for Health Visit to Maquet in Germany 29th – 31st July 2004.

Report by Ann Noble, Chair, Architects for Health

Innovation, cutting edge clinical practice, the promotion of staff efficiency and retention, the improvement of clinical outcomes, the reduction of healthcare associated infections (HAIs), the improvement of the patient experience, clean hospitals, quality of environment, flexibility, and well designed buildings: for architects and designers working in the healthcare sector, these are all familiar attributes which clients and designers alike are constantly

seeking to attain, but which are in practice rarely achieved.

On the invitation of Maquet, members of Architects for Health (AfH) visited three hospitals - the Stadtklinik in Baden Baden, the Kantonsspital Basel Universitätskliniken in Switzerland, and the BG-Unfallklinik Ludwigshafen - and the Maquet Surgical Academy. During the trip the group frequently observed these aspirations being put into practice.



Stadtklinik, Baden Baden



Kantonsspital, Basel



BG-Unfallklinik, Ludwigshafen

All of the hospitals were spotlessly clean, the internal environments were attractive, well maintained and patient and visitor friendly. The attention paid to detail was consistently high from staircases to pigeonholes for leaflets in public areas.

The Stadtklinik is located high above the town of Baden Baden, with clean air and panoramic views confirming that the selection of a site is a fundamental determinant of many qualities for any health

building. At the Kantonsspital in Basel, the buildings enclose a large internal garden with mature trees and planting, which is enjoyed by staff, visitors and patients. With pride, people recounted that the area used to be a car park, which has now been placed out of sight below it: we have become more used to seeing gardens being converted to car parks!

All of the buildings were well designed, and the new wing housing Operating Theatres



Garden View at the Stadtklinik and Maternity at the Kantonsspital was particularly impressive. Views from the roof of the main building showed how well it has been linked to,

and fits with, the existing buildings. From above, one could admire the roof and the internal planted courtyards.



View from the roof of the Kantonsspital

The perennial issue of how patients can enjoy the view into a courtyard without threatening the privacy of rooms on the other side was solved by a freestanding opaque glass

divider running down the middle of the courtyard. Furthermore, far from seeming like a barrier, the smooth translucent quality of the divider created an interesting sculptural effect, reflecting light around the area. The levels of daylighting in the unit were remarkable.



Internal Courtyard at the Kantonsspital

A concern in furnishing for maternity units, increasingly being addressed in the UK, is how to preserve the homely, non-clinical environment that is being sought. In the Maternity Unit we saw a maternity / gynaecological chair which looks more like a comfortable, colourful, modern exercise chair, which takes up less space and does not have such clinical connotations, while providing all of the facilities required for deliveries.

The jewel in the crown of the visit was the new multi-functional technical unit in the Kantonsspital. Maquet have recently designed, built and equipped the unit with their inter-disciplinary workstations, AWIGS (Advance Workplace for Image Guided Surgery), and VIWAS (Vascular Interventional Workplace for Advanced Surgery).

The Unit, located between the Emergency Department and Theatres, used the Variop modular construction system for

theatres, developed by Maquet, with laminar flow above the procedures area. The operating table is mounted on twin pedestals and runs on a track in the floor.

AWIGS combines the operating table with the computer tomograph: patients are placed on a radio-translucent transfer board, are slid into the CT from the emergency transporter, and then onto the operating table without the need for additional transfers.

With VIWAS, operations can be carried out and the results monitored at the same time using imaging procedures. The surgical table can be adjusted both laterally and longitudinally. Using a joystick, or the special touch-screen, it is possible to position the tabletop and the patient exactly.



Multi-functional Unit at the Kantonsspital

The Unit, as well as being safer for patients and enhancing the quality of diagnosis, simplifies work flows and reduces the time taken to carry out procedures by 40%.

Everyone was impressed by the automated transport and distribution system for supplies and waste management situated in the basement, with a complex of corridors, parking areas and loading bays: there is an almost continuous movement of carriers through these areas, but no people.



Automated vehicle at the Kantonsspital



Automated distribution at the Kantonsspital

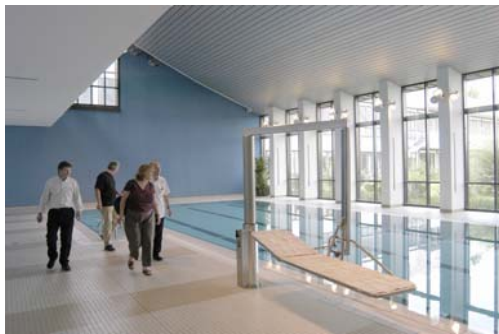
The trauma hospital at Ludwigshafen, which included a Burns Unit, places a high priority on reducing risks of

infection. Septic and Aseptic theatres are provided in two completely separate units with separate support systems, and intensive proactive rehabilitation with swimming pool, gymnasium and external physiotherapy care on a scale that rarely occurs in the UK.



Swimming pool at Ludwigshafen

The hospital is owned and operated by a Workplace Insurance Company which has responsibility to support their clients financially for as long as they are unable to return to work. This arrangement has led to serious investment in facilities to reduce 'real' whole life costings.



Pool access equipment at Ludwigshafen

Maquet's Surgical Academy at Rastatt, housing conference and meeting rooms, research facilities, and displays of the equipment, demonstrates their commitment to serious research and development, and their focus on service and patient flows.

The range of equipment displayed, the full size operating suite, and the full size examples of Variop's modular construction for theatres and other specialised areas furthered the group's exposure

to new ideas, very high standards of infection control, and the use of technology to increase efficiency and comfort for patients and staff. Until recently, the Operating Theatre had been in clinical use. Of particular interest was the provision of a separate operating table cleansing room opening off the Theatre suite.



Maquet Operating Suite

The whole visit was stimulating and informative, offering models of hospitals that achieved many of the ambitions outlined in the opening paragraph of this article. The party returned with an incentive to apply such best practice to our own health buildings, and to encourage clients and colleagues to understand what can be achieved. Admittedly, it is unlikely that any significant changes will occur here until our understanding of value for money and whole life costing changes, and a flexible

approach to funding is adopted.



The AfH Team