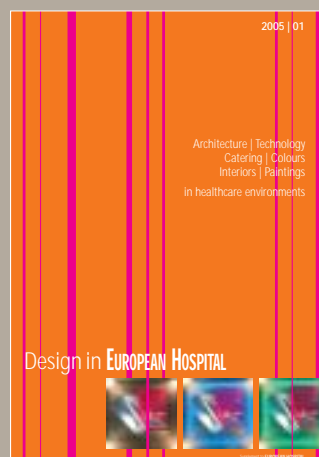


Architecture | Interiors  
Bathrooms | Lighting  
Fixture | Furnishing  
in healthcare environments

# Design in EUROPEAN HOSPITAL



**READER SURVEY**

YOU may qualify for a FREE subscription to **DESIGN in EUROPEAN HOSPITAL**

To participate, simply fill in this coupon and fax to: **+49-211-7357 530**

No fax? No problem. Please post your coupon to:  
**European Hospital Verlags GmbH, Höherweg 287, D-40231 Düsseldorf, Germany**

or send an e-mail to:  
**info@european-hospital.com**

**ENTRY COUPON**

Name \_\_\_\_\_ Town/ City \_\_\_\_\_  
 Job title \_\_\_\_\_ Country \_\_\_\_\_  
 Hospital/ Clinic/Company \_\_\_\_\_ International phone number \_\_\_\_\_  
 Address \_\_\_\_\_ Fax \_\_\_\_\_  
 \_\_\_\_\_ e-mail \_\_\_\_\_

**SPECIFY THE TYPE OF INSTITUTION IN WHICH YOU WORK**

- General hospital  
 Outpatient clinic  
 University hospital  
 Specialised hospital/type  
 Company  
 Architectural firm  
 Other institution (e.g. medical school) \_\_\_\_\_

**YOUR JOB**

- Managing director  
 Director of administration  
 Chief medical director  
 Technical director  
 Architect  
 Other \_\_\_\_\_

I would like to read more about the following topics: \_\_\_\_\_  
 \_\_\_\_\_

**Date, Signature**

This information will be used only in an analysis for **DESIGN in EUROPEAN HOSPITAL** and for the mailing out of future issues

DiEH1/05

## Published by

**EUROPEAN HOSPITAL** Verlags GmbH | Höherweg 287 | D-40231 Düsseldorf  
 Phone +49-211-7357 531 | Fax +49-211-7357 530 | www.european-hospital.com | © 2005 by EUROPEAN HOSPITAL

Editor-in-Chief:  
Brenda Marsh

Art Director:  
Ursula Löckenhoff

Managing Directors:  
Daniela Zimmermann  
Reiner Hoffmann

Translations:  
Annette Bus, Stephanie Warren

Art Consultant:  
Alasdair Howieson

Printed by  
Frotscher Druck GmbH, Germany

Advertising:  
Denise Hennig

Design in **EUROPEAN HOSPITAL** is a  
**EUROPEAN HOSPITAL** supplement  
DiEH is published bi-annually

With special thanks to the following companies for their support and input: **Dräger Medical | Design & Health | Storz | Trilux | Trumpf Medizin Systeme**  
 Advertorials: **Armstrong | ThermoShield | Villeroy & Boch | Zumtobel Staff**

## Title pictures:

**Bodenschatz** is the manufacturer of a novel illuminated box that has a reinforced glass surface. The company created the first and only universally useable presentation medium to be set in the floor (patented).



## A *FREE ZONE* FOR EXPERIMENTS IN HOSPITAL ARCHITECTURE

FRANS C.A. JASPERS

“Currently there are some truly relevant developments occurring in hospital architecture and design. First: hospitals are to act in a free market where, increasingly, patients will behave as consumers who will base their hospital selection on two things: its reputation and how the hospital has organised its logistics – in short, expertise and quality. Second: hospitals must fit into the urban environment – the concept of ‘a hospital without walls’. Hospitals will also be organised in another way: no longer along the lines of medical departments but around groups of similar patients and around the best possible logistics. A final development is the influence of the concept of ‘evidence based design’ in hospital building in Europe, because this concept increasingly focuses on patient’s safety. These developments require both hospitals and architects to grasp their responsibilities. Hospitals should not be afraid to hire international jet-set architects and should use architecture to manifest themselves as representative public buildings. They should also give opportunities to (young) architects, who do not have experience in the design of health care-centres. Hospitals should make better use of architecture to rethink their functional layout and must explore architecture’s contribution to making people feel at ease and promoting their well-being. Hospitals should welcome the contribution of ‘evidence-based design’ and accommodate further research in this field.

Architects should rediscover the hospital as their prime responsibility and realise that expert knowledge is the key to empowerment. They should not limit the scope of their profession to design. Architects must adapt to a realistic approach, to ‘evidence-based design’, and promote their own research in this field. I truly think that it is essential that architects and hospitals should unite, develop and explore the interaction of science and design in order to develop new concepts in the design of healthcare facilities. Therefore it is urgent that in the Netherlands, and other countries in Europe, a ‘free zone’ for experimentation in hospital architecture should be realised.”

Yours sincerely

Frans C.A. Jaspers

MD, Member of the Executive Board, University Medical Center Groningen, The Netherlands



- 03 | editorial
- 06 | the university medical center groningen
- 08 | what is the definition of good design  
Anja Behringer
- 10 | design is about communication  
Rostislav Kuklik
- 11 | a centre for communication creates synergies  
Frank Hoffmeier
- 12 | a village in the hills  
Brenda Marsh
- 16 | zones of disturbance  
Anja Behringer
- 16 | economical building renovation
- 17 | immortality in glass
- 18 | want a bath?
- 18 | bathing in a soft sea of shades
- 19 | integrated medical supply systems
- 20 | pro architectura new
- 22 | flooring – bacteriostatic properties reported
- 22 | PVC products – time for legislation  
Christian Pruszinsky
- 23 | flooring – unique palettes, over 130 shades
- 24 | product design
- 27 | tableware to take the mind off things
- 28 | the future operating theatre today
- 30 | employees select their own lighting
- 31 | hospital architecture: competitive and healing  
Book review

# Colors of Care ...

## ... chosen with care

Even the visual environment in your hospital can have remarkable effects on your patients. Well-chosen color combinations can positively affect blood pressure, stress levels and the patient's general sense of well-being – and, thereby, contribute to therapeutic success. Dräger Medical offers a line of carefully chosen colors for Ceiling Supply Unit vertical frames. This way, our technology can become part of an overall color concept dedicated to improve patient outcomes.

**Dräger**medical  
A Dräger and Siemens Company

www.draeger-medical.com



## Nature as a Role Model

Precision and perfection: a matter of course for nature, the result of technical ability and innovation in industry. We build on our tradition of craftsmanship to custom-design solutions for the circumstances at hand.

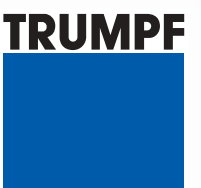
Imagine your hospital in the future. How big is the difference between vision and reality?

As a systems optimizer with innovative products we always have your workflow in operating rooms and intensive-care in mind: Choose from modular operating tables and systems for patient transport, ceiling pendants and trolleys, surgical lights with halogen and gas-discharge technology.

INNOVATIONS  
FOR PATIENT CARE

## TRUMPF Medizin Systeme

Phone +49 (0) 89 / 8 09 07-0  
Fax +49 (0) 89 / 8 09 07-20  
e-mail info@de.trumpf-med.com  
www.trumpf-med.com





# THE UNIVERSITY MEDICAL CENTER GRONINGEN

*Almost a mediterranean atmosphere:  
birds twittering in palms and massive plants*

The University Medical Center Groningen (UMCG), one of the largest hospitals in The Netherlands, is located in the heart of the old Hanse town Groningen, the country's northern capital. Spread over about one kilometre, and employing around 8,500 people, it receives about 15,000 visitors daily.

The hospital has five core tasks: patient care, education (training in medicine, dentistry, logistics research), post graduate programmes, scientific research and research & development.

The UMCG is one big complex which includes education, training and research, opened in 1997, as one hospital with a single main entrance.

Planning The University Medical Centre Groningen took about half a century, and the construction almost 20 years, Dr Frans C A Jaspers, a member of the UMCG Executive Board, pointed out. 'That's quite a long period. Yet everyone within UMCG is convinced that the fact it took so long brought many benefits. Needless to say it wasn't always easy. However, consequently the end result is so much better, which definitely outweighs the drawbacks.'

Wytze Patijn, the hospital's architect and a member of the scientific committee of the international conference 'The Architecture of Hospitals' held at the hospital in April, carried out a study for the new construction in the 1980s. This included an evaluation of the urban development into which the hospital would fit and its accessibility,

both literal and psychological. Commissioned by Jan Hamel, the hospital's CEO, Wytze Patijn then created the new structure, with architects at Team4, in Groningen.

'The building is rooted in a clear philosophy and vision,' said Dr Jaspers. 'Patijn showed us that we should not view this complex as a building within a town, but rather as a town within a town. So we worked with various different interior architects, which resulted in a multitude of styles. Another underlying thought is that, in the public part of town, there should be a non-medical atmosphere. It is a public building, which happens to be a hospital. The patients and visitors find they are considered more than just a patient or someone visiting a patient. The building is appealing to their healthy selves. This allows them to step out of the role of patient. The hospital is anything but traditional. In the reception hall you may feel that you are in an airport or a central train station. Large patios and open rooftops provide as much contact with the world outside as possible, and palm trees and massive plant and flower formations and a splashing fountain create an almost Mediterranean atmosphere, with twittering birds in the background.'

Building the UMCG cost about 500,000,000 paid by central government (half by the Ministry of Education). The investment will not be amortised for about 40 years. However, although a non-commercial hospital, UMCG nonetheless showed a 'small positive return' in 2004.



# WHAT IS THE DEFINITION OF GOOD DESIGN?

*A product or setting that is multifunctional, adaptable, flexible, compact, environmentally friendly – and more pleasant for all users.*

ANJA BEHRINGER

Innovative products whose outstanding design supports their function are no longer lifestyle items that attest to the taste and social cachet of their rich and famous owners. Well designed-tools and instruments have conquered the workplace. Users discover that there is more to good design than meets the eye, be it the designer pen or designer power station.

Design basically means that someone has considered the link between form and function. Today, 'function' encompasses safety, ergonomics, health, handling and productivity. The smart and pleasant look is the icing on the cake.

Design for everyone – Industrial design has become an essential phase of product development. Medical technology is no exception. Lighting and colour of the products are important features. Studies on light and colour therapies, on the emotional content of hues and intensity of light, as they affect both patient and medical staff, inform the product design.

A whole slew of new design competitions, launched by internationally active companies or industry associations, attract designers and design students from all over the world – for example at the Electrolux Design Laboratory. In addition, the target audiences become ever more diversified and fragmented. Designers study special user groups or usage areas, such as women and children, sport and gardening – and particularly health. Products that serve a certain health purpose, products for senior citizen homes or hospitals, products for people with certain conditions abound.

Patients are not the only ones to benefit from healthcare products. Those who work in healthcare environments, in medical care or administration, also deserve to be supported by well-designed products, not least because good design spells safety.

At the Altenpflege trade fair, held in Nuremberg, products as well as ideas by design students went on show. The designers had gone beyond the individual target group. Their motto 'Universal design' means that certain products are no longer tailor-made for one specific group but are simply 'good' for everyone and facilitate usage.

Ralph Wiegmann, Managing Director of if International Forum Design GmbH, in Hanover, explained that 'design for all', as it is called throughout Asia, doesn't concern '...specific products for a certain group of people, but good design throughout all phases of the life. Design for all aims at easy, comfortable and comprehensible use of objects, no matter whether they are in the hands of youngsters or senior citizens, of mobile people or the handicapped. Design for all

is inclusive, it integrates rather than segregates. The whole range of possible users becomes the yardstick for balanced design.'

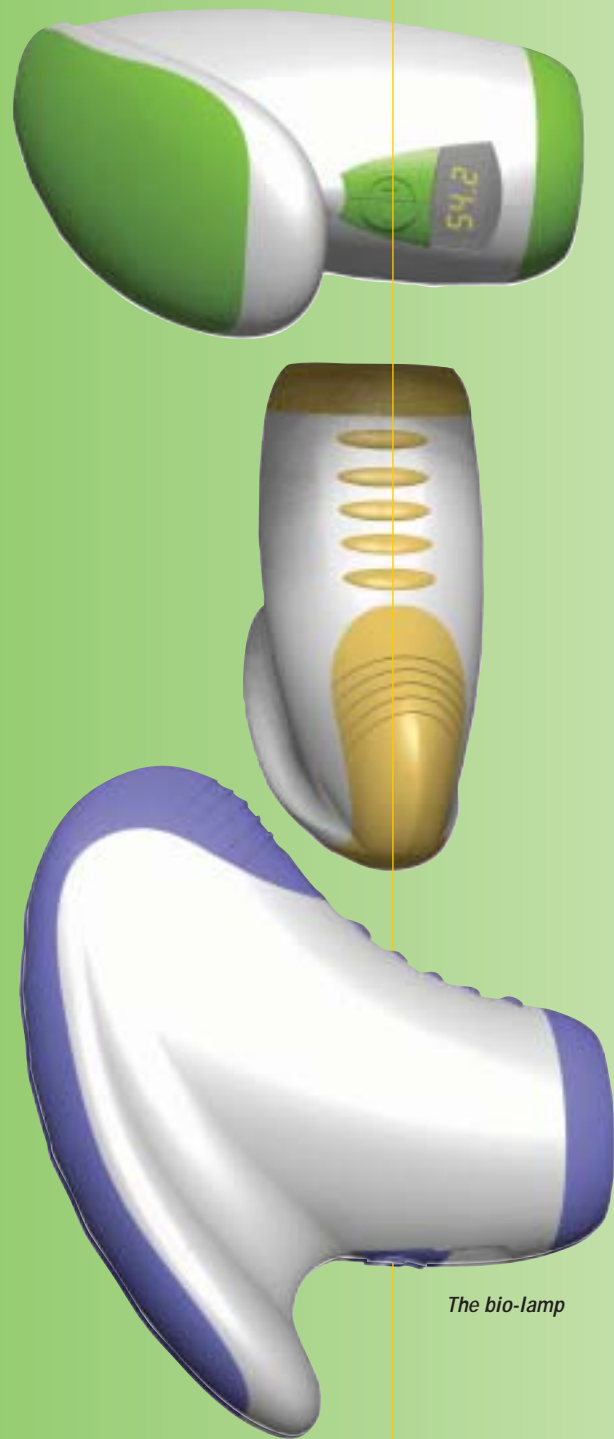
You are young, healthy and mobile and don't see the point in all these handles and supports in bathroom, hallways and what not? Well, see for yourself and think again. Try Hewi's 'ageing suit', which imposes physical restrictions on the wearer similar to those experienced by old people. Hewi's product line LifeSystem received several design awards. Markus Sattler, Product Manager, explained that the items were developed in co-operation with residents, nurses, architects and management companies of senior citizen homes and hospitals. One of the main requirements was easy access, above all to the bathroom.

The bathroom – from prefab to wellness area – At the Nuremberg trade show the special exhibit Lebensräume (habitats) focused on products with 'universal design'. This was also the setting for a competition for architecture and design students that asked for ergonomic and easy-access bathrooms. Particularly in senior citizen homes, hospitals and rehabilitation centres the bathroom is one of the most important work areas – however, it mostly resembles a mixture of a machine room and abattoir. Yet, even in a space where hygiene is of utmost importance, a little colour and intelligently chosen accessories can create a friendly, warmer and more welcoming atmosphere.

Private bathrooms should accord the user maximum mobility and independence in a confined space. Clever positioning of fixtures, handles and storage sections allows easy access as well as enough room for a helper if need be. Large manufacturers of bathroom facilities presented convincing solutions with low shower trays, sturdy washbasins with supports or height-adjustable toilets.

Two further major issues in bathrooms – both connected to safety and hygiene – are lighting and surfaces of floors and ceramic items. Non-slip (even when wet) surfaces of floors and bathtubs, fluorescent tiles, or self-cleaning ceramics, not only provide additional ease of use, they also reduce the number of accidents in bathrooms. There were even shower basins and bathtubs with doors for easy access. Fixture manufacturers have also started to apply 'universal design' to mixer taps and shower fixtures.

In Nuremberg, it became clear that the designers had studied the behaviours and needs of future users before they sat at the drawing board. They found out that 'good' design means it is multifunctional, adaptable, flexible, compact and environmentally friendly.



The bio-lamp

## DESIGN IS ABOUT COMMUNICATION

Many people never imagine how much thought has gone in to creating a piece of technical equipment or a tool they may be using; yet the design elements have been many - and complex. A tool is not like any item that you would just look at and enjoy. Whether it's a screwdriver, fishing line, or an electron microscope, it must work to the height of its purpose as well as be safe to use. A smart, appealing appearance is like the icing on the cake.

To these ends, the innovation and development of new products, particularly those that are branded and linked with marketing strategies and production, is a process that needs the direct input of a designer from the very beginning of a product's concept. Design is therefore a communication between the manufacturer, designer and finally the user, or consumer. 'That communication should be - as design is - straightforward and intelligible,' said David John, the Czech industrial designer who founded the FaktUmDesign studio, which specialises in complex technology and parts, machines, tools and consumer goods. The principles were employed in the development of the personal electron microscope, he said, '... which is unique in many ways. It sets brand new horizons in design via its technical features, compactness, and overall design. The functionality of this appliance fully corresponds with its morphology, shaping and manufacturing. The horizontal division line emphasises the section containing the cooler and also forms a characteristic and very distinct component.'

As another example, David John described a bio-lamp - an appliance that provides therapy using polarised light - that resulted from a study of future trends in this type of production line. FaktUmDesign, he pointed out, finds the greatest challenge in products that are rather limited by manufacturing procedures and current possibilities in technology. 'In our studio, we understand the entire design sphere as a certain way of thinking, as an ideal symphony of material, construction, technology, and functionality of creative elements that we might employ while creating a new product.'

*Based on a report by Rostislav Kuklik*

[www.faktumdesign.cz](http://www.faktumdesign.cz)

# A CENTRE FOR COMMUNICATION CREATES SYNERGIES

REPORT BY FRANK HOFFMEIER

In pleasant surroundings, hospital managers and medical personnel gather to attend medical seminars and presentations and to meet leading manufacturers of pharmaceuticals and medical technology. The pervading atmosphere is one of comfort and relaxation, where discussions of the latest products, developments and trends can be shared with ease, perhaps over a glass of wine and a light snack. Sounds like a dream?

In Medicallounge, a new exhibition and education centre in Berlin, that dream is a reality. Centrally located - with a touch of early-industrial romanticism - a transformer station in Berlin's Kreuzberg has been transformed into an exchange for medical innovation and information. Set on 12,000 square metres, several seminar rooms, an auditorium and two training operating theatres (OT) provide an ideal environment for diverse educational events.

This urbane concept and its content match the centre's sophisticated architecture. The seven core areas of Medicallounge cover a broad range. The Medical Technology area presents state-of-the-art surgical instruments and OT solutions. In the Medical Competence Market area, medical technology manufacturers display their specialised wares to demonstrate core competencies, and these companies have also formed working groups to build synergies.

The Service Centre deals with facility management issues, presenting the newest service developments that focus on improving quality standards whilst containing costs. The Pharma Centre offers information on all aspects of pharmaceuticals. The Innovations Centre draws decision makers from all hospital

divisions, and serves as a neutral forum for discussion between industry and research institutions. The Academy develops seminar and educational offerings, including e-learning. Last, but not least, the Business Centre helps with all aspects of event and conference organisation.

20 companies have already joined this promising organisation, which eliminates the need to use their resources to scout the latest trend. Medicallounge leads the entire healthcare market to their doorstep.

This new venture not only helps industry, but also healthcare visitors and congress participants, the Association of German Surgeons (Berufsverband der Deutschen Chirurgen - BDC) pointed out: 'Because this unique communication platform is independent, it can be used for seminars and educational events without the BDC having to commit to a certain company. And, like all fruitful events, its relaxed atmosphere encourages informal talks and creates synergies that money cannot buy.'

Medicallounge | Umspannwerk Berlin  
Ohlauer Straße 43 | 10999 Berlin  
Phone: +49 (0)30 61 65 44 0 | Fax: +49 (0)30 61 65 44 29  
info@medicalounge.com | www.medicalounge.com



# A VILLAGE IN THE HILLS

Set on a hillside 'like a Greek village'



Easy to access outdoor attractions



Ireland – When the London-based firm Building Design Partnership (BDP) was appointed to design a private hospital for the elderly on the outskirts of Cork, the client – the Bon Secours Health System – asked the architects to provide a 'secure yet stimulating environment'. This was certainly achieved.

In June 2003, the resulting small-scale hospital gained BDP a much-coveted Royal Institute of British Architects (RIBA) Award.



Careful landscaping is vital for long-term patients

## architecture

St Joseph's Hospital, Bon Secours Healthcare Village, has 62 high dependency bedrooms with ensuite bathrooms, and seven flats for long-term patients, arranged as a series of fingers that radiate from a curved main street. Each terminates in a cedarwood-clad lounge. The design, say the architects, enhances both a sense of community and of distinctiveness. 'Externally, the clusters of buildings cling to the hillside like the houses of a Greek village. The choice of materials reflect the local vernacular: white rendered walls and peat brown clay tiles give an authentic village feel to the place, with zinc used to highlight the rooflines. Cedarwood is used inside and out, and appropriately so, as it is known to be an analgesic and can contribute to the healing process.'

Assessors were impressed: 'Through the care and sensitivity with which the buildings are arranged on the site to meet the needs of the residents and staff who use the centre. The architects (BDP) have

challenged traditional concepts of circulation space and create an internal environment that encourages informality and interaction. Circulation areas are generous, naturally lit and arranged to create sitting and meeting areas.'

All the residential accommodation and meeting places had been planned to make the best use of light and views over the beautiful countryside. Because many patients spend considerable time in chairs or beds, few places could be more gentle or pleasant as this.

The architectural firm BDP has a broad and impressive portfolio, and projects are not limited to the British Isles, nor are they typical of this small hospital project. BDP is currently designing major hospitals for Portsmouth, Brighton (a large children's hospital) and Birmingham (to include teaching, training and research centres).



*The healthcare village is also a pleasing workplace*



*Natural light and simplicity of objects create a peaceful chapel*

## Preliminary Program and Registration

**Design & Health**  
International Academy for Design and Health

## World Congress and Exhibition

Frankfurt 6–10 July 2005  
(WCDH 2005)  
Hilton Hotel

In co-operation with

- European Hospital
- International Hospital Federation (IHF)
- Union of International Architects – Public Health Group (UIA-PHG)
- Federal Chamber of Architects, Germany (BAK)
- Architects for Hospitals and Healthcare Services in the Association of German Architects (BDA)





hazards

## ZONES OF DISTURBANCE

*Waves and modulators suppress EMFs*

Anja Behringer

Electromagnetic fields (EMFs) occur naturally (generated by the Earth's DC geomagnetic field) but also as bi-products of the many man-made, alternating current, electronic devices and installations in our daily lives, for example from mobile phones and microwaves to larger equipment and certainly the pylons supplying our electricity. Reported negative effects linked to exposure to EMFs include headaches, nausea, insomnia, heart diseases and leukaemia, and last year the International Agency for Research on Cancer (IARC) announced that low-frequency EMFs might be carcinogenic, as many previous studies had concluded. Thus, if a body is already weakened by illness, exposure to EMFs is potentially hazardous.

Areas of raised EMFs are evident in high-tech hospitals, thus the necessity for interference suppression is obvious and, whereas this topic was once viewed as somewhat esoteric and received about as much interest as 'miracle' cures, now procedures are in use to suppress or neutralise EMFs.

The Institute for Physical Space Interference Suppression (IPR) ([www.ipr-berlin.com](http://www.ipr-berlin.com)) is part of the Building Technologies Division of Drees & Sommer Corporate Group, and focuses on sustainable building, ecological compatibility and social responsibility. 'Better working conditions contribute to employee satisfaction, improve concentration and increased productivity,' the institute points out, explaining that it promotes health by neutralising interference fields around equipment as well as from natural sources. Calling EMFs

'electrosmog', the institute says it minimises long-term exposure by using frequency modulators, which produce 'counter waves' to permanently neutralise the interference. Individually programmed to match conditions in each workplace, these modulators are then fitted to floors, walls, ceilings and electrical installations. The effect of the suppression is demonstrated by carrying out brainwave measurements on people working in rooms where EMFs have been suppressed, the institute points out.

Harmonising geowaves ([www.geowave.at](http://www.geowave.at)) is also reported to help control geopathological interference from naturally occurring electromagnetic radiation, usually at the microwave frequency, e.g. from water veins or fault lines. When it was noticed that wavy designs – made from aluminium and fitted to ceilings as artwork at the Salzburg Accident and Emergency Hospital – had positive effects on the energy of patients and staff, and had resulted in reduced patients' stays as well as less staff absenteeism due to illness, the phenomenon was investigated.

Austrian medical teams are not strangers to treating patients holistically, so the 'geowave' soon became adopted in many Austrian hospitals, e.g. the Landeskliniken and Christian Doppler Klinik, Salzburg; Otto-Wagner-Spital, Wilhelminenspital and Kaiserin-Elisabeth-Spital, Vienna, and the Vienna Hospital Association.

\* The latest research updates relating to the health hazards of EMFs can be found in the bi-monthly news report Electromagnetic Hazard & Therapy ([www.em-hazard-therapy.com](http://www.em-hazard-therapy.com)).

## ECONOMICAL BUILDINGS RENOVATION

*The long-lasting surface coating that saves heat*



From the surface, ThermoShield looks like an ordinary paint and its handling is just as easy, the manufacturer reports: 'The innovation lies in its ingredients – with this latest technology 30% of the annual consumption of heat energy can be lowered. The principle is quite easy: ThermoShield adjusts the humidity balance of the walls, as an exterior, roof or interior coating. Excessive humidity is removed, brickwork becomes drier, and so insulation improves. At the same time, rooms warm quickly and evenly, due to the high ceramic level in the material, so heating costs go down. Exterior and roof coatings lie around a building like a skin and protect it from severe weather and environmental influences like UV-radiation, smog, dirt and acids. The



brickwork remains dry and is prevented from crack formations and algae-growth.'

Due to its even warming condensation is prevented, even in rooms with high humidity. Thus, for interiors, ThermoShield offers a healthy environment, the manufacturer adds. 'In contrast to other coatings ThermoShield does not charge statically, so dirt deposits are notably reduced. The paint also promises high colour-durability.

Hygienic, harmless, ecologically friendly, suitable for use around those with allergies, the coating is available in 4,000 tones.

[www.thermoshield-europe.com](http://www.thermoshield-europe.com)

doors &amp; division



## IMMORTALITY IN GLASS

When the owners of the Fabia Mater Clinic in Rome, Italy, wanted the building refurbished they commissioned Lorenzo Berna, Professor of Architecture and town planning at Perugia University, for the task. This led to a delightfully surprising suggestion. Fabia Mater is owned by the Guarnieri family, which includes several generations of renowned medical doctors and researchers. Professor Berna wanted to use photographs of family members taken when they were as children. To these he added photographs of the children of the artisans who worked on the clinic's refurbishment. Then came abstract Arcadian scenes from nature, including storks and squirrels and, by contrast, artistic depictions of chemical formulae to represent medical science. Today the decorative laminated glass panels that he designed tell a story - not only of the clinic's owners and its purpose, but of the building's construction, which was completed at the end of 2004.

To create soft, natural daylight throughout the ground floor, including the reception hall, cafeteria and administrative offices, the professor used Dupont SentryGlas Expressions for internal partitions, doors, walls, and murals. 'Aesthetically, SentryGlas Expressions has given this children's clinic a bright and positive new spirit,' he concluded.

Professor Berna's original designs were converted into glass by 80-year-old Sergio Cardoni, owner of Green Allestitenti, a commercial glass fitting company. 'We had tried photographic methods, then signage, then screen-printing. Then we read about DuPont SentryGlas

Expressions technology, and realised it would solve our problems.' The use of laminated glass was essential because safety glass is mandatory for floor to ceiling glazing. In addition, lamination protects the collage from damage. It is also hygienic for health centres. In all his 50 years in the glass fitting business, Sergio Cardoni had never seen anything like this glass technology, and now envisages using this special glass technology for airports, museums, and, well, just about anywhere, for special decorative effects. 'All the diverse images the architect wanted to gather together could be easily scanned by computer and assembled digitally. The CDs were sent to America and DuPont sent us back samples to check. After approval, we sent them to the laminator.'

DuPont SentryGlas Expressions is indeed a revolutionary new way for designers and artists to harness digital technologies to produce a wide range of decorative glass results. The special process involves inkjet printing directly onto the PVB interlayer of laminated safety glass, to achieve high-quality imagery and design textures in safety glass. Design-to-production times are quick, Dupont points out. 'Digital technology increases design flexibility, customisation potential and image tone control. Images are embedded inside the laminated glass, safe from harm. Users benefit from easy-care visual aesthetics along with the standard benefits of laminated glass including safety, security, UV protection, noise reduction and solar/thermal control.'

Professor Lorenzo Berna: [lberna@unipeg.it](mailto:lberna@unipeg.it)  
[www.dupont.com](http://www.dupont.com)

Photos: DuPont



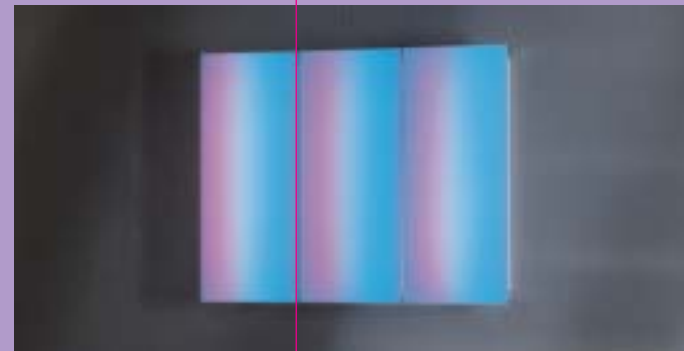
*In murals, walls, doors, partitions: the dreamy smile of a contented baby; children at play; a family group; the delicacy of photographic colours from times gone by; times fondly remembered, and the symbols of medical science depicting a family's dedication*

## WANT A BATH? WALK THIS WAY ...



This acrylic bathtub version of the BellaVita Step In not only offers exceptional (spa) ease and comfort to older people, many of whom may have difficulties climbing into an ordinary bath, but its manufacturer, Duscholux, reports that youngsters also see the benefits, which include its generous interior depth of 460 mm. The firm integrated a dual-grip safeguard, via an additional locking mechanism to '...reliably prevent unplanned opening of the 100 mm strong glass door, to protect the bathroom from unwanted flooding. Ergo: Everything is OK.'

## BATHING IN A SOFT SEA OF SHADES



Designers have neglected bathroom lighting for many years, leaving many people with perhaps well-designed fixtures, furnishing and tiling, yet a 'cold' space in which to relax.

This handsome module creates atmospheric highlights, which the manufacturer Keuco says promotes a sense of well-being, based on the principles of colour light therapy.

Using the remote control, a colour can be chosen for a desired lighting effect or to match one's mood. Alternatively, selecting the Random button bathes the bathroom in changing colours, whereas touching Daylight creates a pleasant neutral light.



## INTEGRATED MEDICAL SUPPLY SYSTEMS

*Smart solutions tidy vital components surrounding patients*

Contemporary designs for patients' rooms are increasingly based on the the living-room ambience in hotels. The main focus is on optimum care of patients and their sense of well-being. In terms of the integration of medical supply systems, this means that architectural aspects, in addition to technical and functional requirements, need to be taken into account.

Zumtobel Staff has developed the Conboard medical supply unit, which not only responds flexibly to technical and functional requirements but also blends with any architectural environment. Conboard is a new product in the Elgadget range, which combines technology and design as well as safety and attractive looks. The supply unit is made of extruded aluminium sections and concentrates all the necessary supply outlets compactly in one location.

Conboard provides designers and users with plenty of freedom, in technical as well as design terms. Several supply lanes can be individually planned and fitted, and these operate horizontally and vertically, the standard versions being 600 mm long. The corresponding number of technical supply components, such as medical gas outlets, sockets, patient call, telecommunication and data lines, are integrated according to needs. In this way, where minor care is needed, even one or two lanes can provide all the supply outlets required.

Apart from traditional outlets, a supply unit provides double or central supply schemes that can be easily implemented for each patient bed. Conboard thus provides equally compact solutions for single, double and multi-bed rooms. As a Class IIb medical device, the supply unit complies with the legal requirements of the Medical Devices Directive 93/42 EEC.

Due to its outstandingly shallow mounting depth, the supply unit can be recessed in a wall or installed on the wall as a clip-on module. In addition, the sander.hofrichter.architekten studio, in Ludwigs-hafen, Germany, has designed a modular front wall for flush

integration of Conboard.

The innovative wall system clearly fixes the limits of a patient's individual space. With a width of 1.60 m, it smoothly adopts the dimensions of a bed, including a lateral bedside table. However, this basic module can be extended to provide a complete wall panel system. The high-pressure impregnated surface, made of the natural material wood, flexibly adapts to architectural requirements, paving the way for various concepts.

For walls needing renovation, and particularly for buildings subject to renewal, the wall system enables attractive and functional designs. It is resistant to disinfectants and, due to the flush-fitting design, can be cleaned easily. In addition, the medical supply system very effectively replaces the bumper for the bed. Additional modules such as automatic infusion devices, monitoring and other supervisory systems can be added simply by screw-fixing a vertical mounting rail.

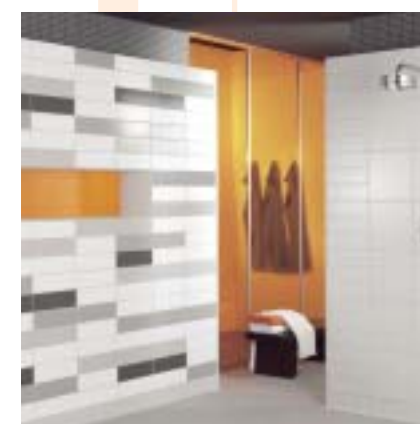
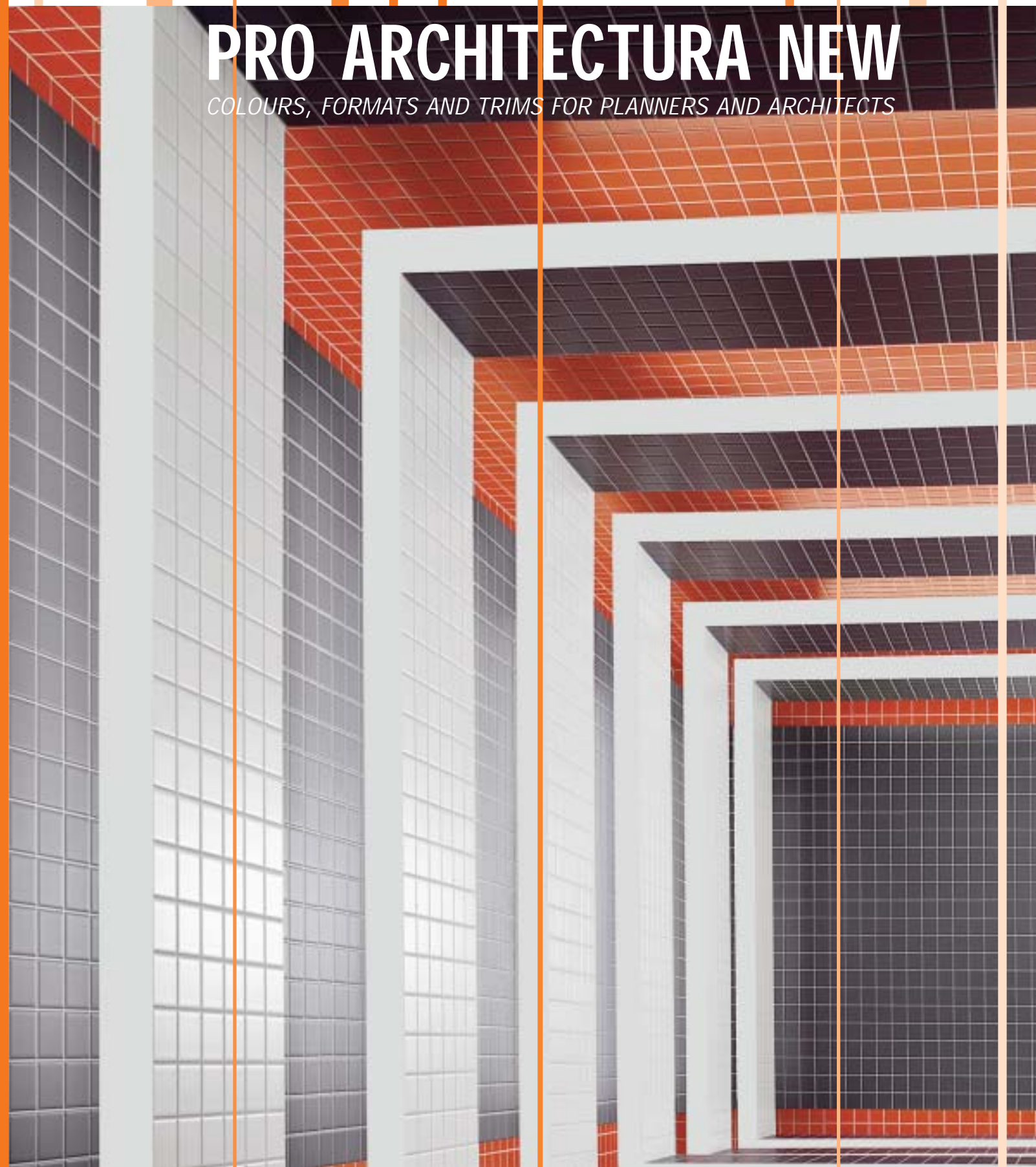
A lighting module, exclusively developed by Zumtobel Staff, closes the multifunctional front wall system off at the top. With a linear, clear design, this perfects the architecturally unobtrusive overall concept. It serves as a reading, examination, room and night light at the same time, and has been optimised in all application areas using state-of-the-art computation methods. Conboard therefore makes the light therapeutic, enhancing a patients' sense of well-being. In addition, room 'scenes' based on natural daylight stimulate the patients' senses, synchronise their inner clock and provide a pleasant atmosphere.

Where Conboard is not used as a front wall but as an individual solution, the Pureline and Curea luminaires from the Elgadget range are logically added. Their features have been specifically matched to area lighting, according to medical needs.

[www.zumtobelstaff.com/conboard](http://www.zumtobelstaff.com/conboard)

# PRO ARCHITECTURA NEW

COLOURS, FORMATS AND TRIMS FOR PLANNERS AND ARCHITECTS



The versatility, sophistication and comprehensive colour system of the Pro Architectura range of glazed vitreous wall tiles and unglazed porcelain stoneware with Vilbostoneplus seal for floors, has made this a leading choice of architects and designers ever since Villeroy & Boch began production in 1987.

Recently, anticipating design trends, the firm has now completely revised and updated the selection. Along with the modern colour matrix integrating the new colours into the existing system, the firm also worked with Frank Huster, lecturer on design at Wiesbaden polytechnic college and head of his own design and architecture company, to produce new formats and a comprehensive system of accessories and trims. Colours from the firm's Granifloor floor range have also been incorporated into the overall concept.

The new range is based on theories of Bauhaus teacher Johannes Itten, on primary colours, secondary colours and light/dark, cold/warm complementary contrasts. The natural theory of colour, which takes account of the progression from light to dark in the course of the day and humans' spatial vision progressing from close to distant, as exemplified by colour progressions in the spectrum of a rainbow, or rich colours in the foreground and diffuse pastel shades in the distance, is also integrated. Consistent with this, the new range is divided into harmonious colour lines, each featuring uniform shade progressions.

Colours of superior brilliance, clarity and freshness have also been added to the range, enabling designers to create brilliantly colourful settings. Among 54 colours and shades, 40 are in glazed vitreous and 14 in unglazed porcelain stoneware. Also, each colour line for walls has a corresponding one for floors. To enable designers to produce realistic plans in shades that closely correspond to the actual colours of completed projects, colour codes are provided that correspond approximately to NCS, RAL and Pantone colours.

The firm offers a considerable range of tiles sizes and shapes, including mosaic tiling, and there various slip-resistant surfaces, and glazed versions are ideal for easy cleaning, an important asset in hospitals. Also for nursing environments, trims have reinforced cove bases to withstand ten times the previous maximum stress level, and trims for shower trays can be used to install a wheelchair-friendly shower zone in a barrier-free bathroom. (The Genius shower tray system enables differences in height of up to 10 mm to be bridged without steps).

In all, the Pro Architectura NEW range opens up enormous creative scope for aesthetic and functional designs, and, the firm says, the cost is competitive.

## FLOORING BY FORBO

*Permanent bacteriostatic properties reported – even against MRSA*

Forbo Flooring collections are manufactured from natural raw materials, and are hygienic, durable, and beautifully and innovatively designed, the manufacturer reports, adding that they are permanently antistatic, and provide permanent bacteriostatic properties, confirmed by independent laboratories – even against MRSA.

The floorings can be invisibly welded, and withstand heavy loads and wheeled traffic. They are also fire-resistant. All which explains their popularity with everyone from architects and facility managers to professional cleaners, Forbo points out. 'You can choose from a rich diversity of designs. Our global brands Marmoleum and Artoleum are sold worldwide. One of the responsibilities of a world leader in a product is also to be a world leader in environmental responsibility.'



## PVC PRODUCTS – TIME FOR LEGISLATION

*Christian Pruszynski*

Alternatives to PVC exist for almost all applications. Despite its negative impact on public health and the environment, PVC is still widely used in the production of medical products. DEHP, used as a softening agent in PVC, has been shown to be especially harmful to certain patient groups. Consequently, PVC and safer alternatives have been a main topic at the first European Healthcare Congress for Sustainable Products and Practices – CleanMed Europe. 'It is high time to enforce existing legal requirements and to start the final phasing out of PVC production,' said Professor Bruno Klausbruckner, environmental director of the Vienna Hospital Association. 'To quickly increase the demand for PVC-free medical products, a joint international action is needed,' added Manfred Muehlberger, director of the Institute for Sustainable Healthcare. If a comparable number of PVC-free products is marketed and sold, in most cases their price is no higher than those containing PVC.

Examples from Austria indicated that the public hospitals in Vienna had reduced PVC waste to under a quarter, and the paediatric department Glanzing, in Wilhelminen Hospital, runs what is possibly the first PVC-free Neonatology unit worldwide.

Its harmful impact of DEHP on premature infants is far greater than on adults. Thus the use of DEHP in baby toys has been prohibited throughout the European Union for many years. DEHP is not firmly bound into the PVC matrix and therefore leaks out easily from tubes, bags or other items and is transported into the human body when used for artificial ventilation or parenteral or enteral nutrition. DEHP may cause liver, skin and cardiovascular diseases and may also harm male fertility.

Although PVC is produced in closed production lines, monomeric vinyl chloride, which is a highly carcinogenic substance, is constantly emitted into the environment. The waste disposal of PVC is very dangerous: Toxic lead is still used as stabiliser and accumulates in slag and fly-ash when incinerated. PVC accounts for most of the hydrochloric acid generated in incinerators and contributes to the formation of highly toxic dioxins and furanes. In the case of fire, PVC used in buildings leads to a higher smoke density. This is especially dangerous in hospitals where it makes the already complex and risky evacuation of buildings even more difficult.

[www.inges.at](http://www.inges.at)

## ARMSTRONG'S NEW LINOLEUM COLLECTION

*Unique palettes present over 130 shades*

Backed by years of experience in healthcare, Armstrong offers a comprehensive range of linoleum and vinyl coverings designed for hospitals and extended care facilities.

Linoleum meets all the latest standards when it comes to hygiene, static control and cost effectiveness. Made almost entirely from renewable raw materials, linoleum combines an attractive appearance with environmental compatibility, excellent wear resistance and easy care. This classic floor covering is ideal for patient rooms and nursing stations, or in entrance foyers, waiting rooms and other public areas.

By introducing bright, new colour trends, Armstrong has given its modern flooring a fresh and unique look, and the totally redesigned linoleum collection offers an impressively wide palette of 131 modern colours. Unique colours give the various lines their own distinctive character. At the same time, the tone spectrum has been designed to make it easy to coordinate individual colours.

Marmorette and Linorette feature a marbling combination of

individual colours. Uni Walton is a basic, monochromatic floor for pure and elegant spatial effects. Colorette has the most vivid colours of all the lines in the new collection. Granette has a cool and aesthetic appeal, with a striking pattern inspired by natural granite. With LinoArt Star, the company has succeeded in creating an exclusive, innovative line with an important breakthrough – this is the first linoleum to be produced with clear-cut chips. Linodur is without a doubt the most durable linoleum flooring made by Armstrong. This extremely hardwearing linoleum is ideal for all areas where floors are subject to heavy use.

Technical specifications and an overview with original samples of all floorings in the new Armstrong DLW collections are available in two pamphlets arranged according to colours and products.

Additional information is available at :  
service\_germany@armstrong.com, by phone +49.7142.71-185, fax +49.7142.71-248 or on the Internet at:  
[www.armstrong-europe.com](http://www.armstrong-europe.com)

*Marmorette, an elastic floor covering, comes in 60 colours and features its proven classic design with fine, uniform marbling characteristics, which does an outstanding job of concealing dirt.*



## product designs

**CLEVER FOR CUT FLOWERS**

Floral gifts for patients create addition tasks for busy hospital staff; vases are in constant demand, need storage space, may break, and must be cleaned by someone after use. An excellent and novel alternative is ecoVaas, a dispenser that supplies a variety of disposable vases made of ecological paper. Placed at visitor arrival areas, a diagram on the ecoVaas dispenser helps visitors to select the type of vase to buy to suit the size of their bouquets. Then all that's needed is water. Later, when the flowers wilt, the ecoVaas is simply thrown away. The ecoVaas service includes installation of vase dispensers, their complete maintenance and prompt refill of empty vase units (an automatic communication system in the vase dispenser relays when refills are needed). [www.ecovaas.com](http://www.ecovaas.com)

**A PERFECT PILL DISPENSER**

Remembering to take tablets is not always easy, and may systems have been designed to help patients. This elegant dispenser, designed by Bang & Olufsen Medicom a/s and Designit A/S, and a winner of the prestigious, international iF Design Award, protects and stores pills and acts as a reminder, as well as a guide for patients to achieve a high compliance level, while using a simple, well-known blister card. The Helping Hand is also one of the top nominees in the world's biggest design competition, INDEX: Award 2005. [www.medicom.ban-olufsen.com](http://www.medicom.ban-olufsen.com)

**LAB-ON-A-CHIP**

Agilent Technologies 5100 Automated Lab-on-a-Chip Platform has received a 2005 iF Gold Award – an international prize for industrial product design. Lab-on-a-chip technology is based on the principles of microfluidics, which enable the separation of minute amounts of liquid containing DNA, RNA protein, or cellular fragments. Agilent was the first company to commercialise a lab-on-a-chip system, the Agilent 2100 bioanalyser. This quickly became the industry standard for RNA QA/QC. Other applications include protein manufacturing, screening for genetically modified food and detecting bio-terrorism agents in the environment. The judges selected the 50 gold award winners from 12 categories and 2,200 entries, basing their selection on innovation, usability, ergonomics, design quality and ecological aspects. [www.agilent.com](http://www.agilent.com)

**MIRRORED WHILE WASHING**

Another red dot award winner: Designed by Roviras & Torrent Association, and manufactured by Altro Manresa, St Fruitos De Bages, innovative materials, technology and the logical use of shapes has resulted in Aeri, an aesthetically and functionally designed bathroom collection. For example, this washbasin set combines aluminium with natural birch; the taps are made of satin chrome and the mirror is aluminium. [www.altro.es](http://www.altro.es)

**DESIGNED FOR TOP CLEANING & DISINFECTION**

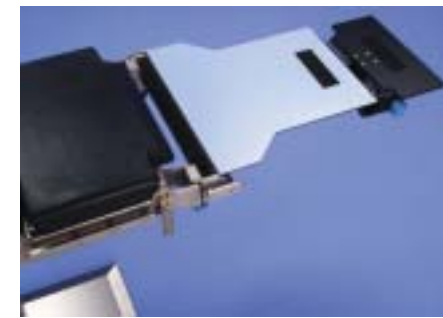
TopLine, the latest range of cleaning and disinfection equipment from Meiko, is high-tech equipment for washing, rinsing and disinfecting bedpans, urine bottles, commode buckets and other care utensils (see European Hospital, issue 2/05). To meet structural or space requirements, the machines can be supplied as wall-mounted, free-standing or built-in models. Additionally, complete care units are available. Both the standing and cabinet type models can be delivered with manual door operation, or as AT models with automatic door opening, according to customers' needs. All that's needed for installation is a power point, then with the easy loading the machines offer, nurses' jobs will become far easier. [www.meiko.de](http://www.meiko.de)

**MIRRA SHADOWS THE SITTER**

To create the Mirra office swivel chair, Herman Miller Inc. Zeeland teamed up with Berlin-based Studio 7.5, where the designers – Claudia Plikat, Burkhard Schmitz, Nicolai Neubert, Carola and Roland Zwick – collaborate closely to research materials, analyse ergonomics in various work environments, then arrive at a suitable product design. Their approach, said Herman Miller, has resulted in the Mirra chair setting a new standard for comfort, fit, balanced ride, and visual refinement. 'It's a second skin...like a shadow of the sitter,' said the designers. 'Just sit on it and it fits.' Mirra's geometrical shapes and spine-like structure creates flexible zones, and the one-piece TriFlex backrest, made of polymer, is also flexible, elastic and big enough to support in the entire back. The integrated PostureFit – a convex curve at the base of the backrest also gives comfortable support to the lower back. In addition, the 'Harmonic' tilt creates pivot points at the hip, knee, and ankle to allow easy and natural movement. 'The spring technology ensures users of all sizes will feel equal resistance while moving anywhere in the wide tilt range. [www.hermanmiller.com](http://www.hermanmiller.com)

**INNOVATIVE INFUSION STAND**

A study of nurses working with infusion stands in Groningen's teaching hospital, carried out by the Dutch firm Indes, resulted in the design of a new one – the Spinny – which can be detached for connection to a bed or wheelchair. Indes also reports that the footprint of the wheels prevents people from tripping over them, and that the grip, wheels and hooks give the product excellent driving characteristics. Already sold to many hospitals, the firm says the Spinny has proved to be timesaving and staff and patient friendly. A major innovation in infusion stands, this device has won an iF Design Award for product design. [www.indes.nl](http://www.indes.nl)

**X-RAY TRANSLUCENCY**

Trumpf Medizin Systeme, which produces modular, flexible operating tables and components, has added Carbon to its products. The series is constructed out of carbon-fibre-reinforced plastics (CFRPs), notable for their X-ray transparency, high rigidity, and resistance to chemical effects. The CFRP components and assemblies are also significantly lighter compared with steel versions. 'However, what makes CFP particularly well-suited for medical applications is its extremely low X-ray absorption and the elimination of metal in the beam path of X-ray equipment,' Trumpf points out. 'As a result, Carbon allows full 360° imaging without any artifacts.' [www.trumpf-med.com](http://www.trumpf-med.com)

## product designs

LOOK DOWN —  
GET THE MESSAGE?

Bodenschatz, the manufacturer of a novel illuminated box that has a reinforced glass surface, said that it has created the first and only universally useable presentation medium to be set in the floor (patented). 'It offers new dimensions for unusual presentations, special campaigns or product launches for advertising agencies,' a Bodenschatz representative told us. Then, we received a surprise. The new issue of DESIGN in EH, became beautifully displayed at our feet! This is certainly a clear way to demonstrate this striking method of putting a message across. Imagine communications about ways to improve your health, or that you are entering a danger zone, or there's an eye-catching concept to amuse or bemuse weak or simply tired children who lie down in waiting rooms? Movement sensors can control indirect illumination of the glass surfaces, and also any timed visual and audio effects. Certified by TÜV Product Service GmbH, there are various designs and controls for illumination and the colours can be adjusted according to needs. Last, but not least: Could an economically hard-pressed healthcare institution raise revenues by renting out such boxes for advertising? [www.boden-schatz.com](http://www.boden-schatz.com)



## FLAT DYNAMIC SWITCHES

DELTA vega, a series of switches designed by Professor Werner Baumhagl, of office industrial design, Meister-schwanden, and manufactured by Siemens AG, Automation and Drives division, has a uniform, reduced appearance that allows the integration of numerous components. 'A smooth surface makes the switch look very flat and dynamic, and the bevelled edge highlights the operating surface and creates an interplay of contours, which is combined with comprehensible and reduced basic forms,' Siemens said, adding: 'Translucent designs are the hallmark of this series' unique character.' The switch won a red dot design award in 2004. [www.automation.siemens.com](http://www.automation.siemens.com)



## AT THE WATER'S EDGE

Henry Gockel, the designer of this 'Three Stranded Goods – Product Leaf' concept, a stunningly original shower/seating unit, said: 'I believe that a shower area should not be static or inflexible. This is an open space concept that makes constant changes possible.' Inspired by a riverbank or shoreline, the designer aimed to differentiate between wet and dry. The water, electricity and heating supplies are housed under the raised 'floating leaf' area. The three shower heads, arranged along a branch 'like a tree over water', would provide massage, spray or gushing jets, which could be changed via a coupling system. The height of the seat could be adjusted and, he suggested, storage for dry towels, lotions, magazines etc. could be added by a manufacturer. Whilst the ergonomics and details are a concept, he pointed out that this draft design presents a statement for a possible new trend of industry, i.e. that bathroom furniture can become 'real furniture' that can also be moved, or flexibly placed, and easy to install. [henry.gockel@gmx.de](mailto:henry.gockel@gmx.de)



## THE TOMATODO

The Tomatodo, a refined splint that supports the wrist of those with hand paralysis via a multi-function ring, has been created by Maxime Massiot, working with surgeon Guy Raimbeau MD, director of the Angers Hand Clinic in France. The firmness of the Zytel polymer holds the wrist in position so that the palm of the hand can rest on a surface, and it allows free movement for the fingers. An extension adapter has also been designed. The splint, which can be either skin coloured or made in variegated shades, is easy to remove, using one hand, and it is washable at high temperature. The Tomatodo is patented but not yet marketed; partnerships would be welcomed. M Massiot, France. Phone: +33 677160722



## TABLEWARE TO TAKE THE MIND OFF THINGS

White, beige, buff, 'safe' neutral shades have dominated wards for decades. However, now that design is increasingly part of the offering of a modern hospital that must compete with others, even catering is brightening up its tones.

The firm Duni, of Bramsche, Germany, reports that its disposable table decorations are supplied to restaurants, hotels, institutions – and hospitals – worldwide. Tablecloths, placemats and napkins

can cheer up mealtimes for patients at minimum costs, and are disposable as well as environmentally friendly, the firm points out: 'A whole ward can quickly take on a Christmas-ambience, with a low budget. The hospital sector should see napkins and table decoration as a feel-good-factor for their guests, not as necessary costs to be reduced as far as possible.'

[www.duni.com](http://www.duni.com)





## OR1 — THE FUTURE OPERATING THEATRE TODAY

In today's operating theatre (OT), progressive developments in surgical procedures that resulted in the use of a variety of medical equipment, from different manufacturers, have made the surgical team's work awkward, time-consuming and even potentially hazardous. However, advances in computer technology and large-scale digitisation in hospitals mean that isolated, stand-alone systems can now be replaced.

Given the increasing importance of minimally invasive surgery (MIS) in almost all surgical disciplines, KARL STORZ has developed a customised OT concept – OR1™ – that the firm reports sets a new standard for harmonising individual surgical procedures, reducing stress and saving valuable time for surgical teams.

The system's integrated device management enables specialised or interdisciplinary configuration of operating theatres. Predefined individual device settings allow more efficient use of OT capacities, and this results in surgical schedules being met, the company points out.

The central networking of both hard- and software components allows complete control of the entire endoscopic surgical procedure from within the sterile area. Simple, co-ordinated device controls – via a central control unit, touch screen or speech control – also accelerate surgical procedures and reduce the risk of incorrect equipment usage during an intervention.

Behind the entire system is the standardised Storz Communication

Bus (SCB) Interface. Endoscopic devices, such as video cameras, cold light sources, insufflators, suction and irrigation pumps, as well as the operating table, blinds and operating light are controlled via the SCB.

An integrated digital recording system simplifies archiving of image, video and audio data – information that can be used for patient documentation and scientific evaluations. Connection to the HIS and PACS optimises quick access to patient and image data.

In addition, telemedicine applications, e.g. video-conferences and live operations for teaching and training purposes, can be controlled directly from the surgical area via integrated state-of-the-art audio-video technology, which also enables the 'virtual presence' of a remotely placed expert who can supply a second opinion during a live surgical procedure.

Due to the KARL STORZ OR1™ system's modular design, central control, image recording and archiving, as well as telemedicine, can be integrated, step by step, with an existing OT system. The open architecture also guarantees optimal utilisation of new technology, including future medical developments. The integration of additional devices from other manufacturers is possible by using interface standards.

The company's close contact with clinical users and centres of expertise at university hospitals, as well as experience gained from a wide variety of implemented projects, form a solid basis for continual development within the integrated operating theatre concept.

## The computerised operating theatre for superb control and high performance

A complete theatre solution from KARL STORZ, the pioneer and world leader in endoscopy, OR1™ is ideal for MIS, all other surgical disciplines and day surgery.

- Gives centralised touch-screen control from within the sterile field over all equipment and systems, including EPR/PACS data and images.
- All equipment is mounted out of the way on ceiling booms but comes effortlessly to hand precisely where needed.
- Equipment can be pre-customised and then readied in seconds for different surgeons and procedures.

- Advanced AV equipment can be used at table-side for telemedicine, telementoring and remote teaching.
- Future-proof integration technology means it is easy to upgrade or add new equipment.
- Helps everyone to perform at their very best, improving patient care and reducing waiting lists by increasing workflow by an average of two patients per list per day. Put yourself in the driving seat!



OR1-3/E/06/06/A

**STORZ**

60 YEARS KARL STORZ – ENDOSKOPE  
1945 – 2005

KARL STORZ GmbH & Co. KG, Mittelstraße 8, 78532 Tuttlingen/Germany, Telephone: +49 7461 708 0, Fax: +49 7461 708 105, E-Mail: info@karlstorz.de, Web: www.karlstorz.de

KARL STORZ Endoscopy - America, Inc., 600 Corporate Pointe, Culver City, CA 90230-7600, USA, Telephone: +1 310 338 8100, Fax: +1 310 410 5527,  
E-Mail: info@ksea.com, Web: www.karlstorz.de

KARL STORZ Endoscopia Latino-America, Inc., 815 N. W. 57th Avenue, Suite 480, Miami, FL 33126-2042, USA, Telephone: +1 305 262 8980, Fax: +1 305 262 8986  
E-mail: info@ksela.com, Web: www.karlstorz.de

# EMPLOYEES SELECT THEIR OWN LIGHTING

When the Berlin Medical Society commissioned new offices, architects Prof. Hascher & Hehle brought in L-Plan Lighting Design.

Initially, advice was collected from experts in yoga, Feng-Shui, biophysics and other approaches, then the L-Plan team, led by Michael F Rohde (lighting designer) and Uli Heim (lighting designer) and lighting researchers Karolina Zielinska and Amardeep Dugar, tackled the design and installation of carefully chosen fittings to produce soothing illumination.

The result was not only an attractive place to work, but also an

Award of Excellence for Berlin Medical Society's offices, from the International Association of Lighting Designers (IALD). The entry was one of seven projects that earned awards of excellence, but it was the only one to do so in the corporate category.

Nowadays, in individual offices each person can select warm-white, daylight white, pure colour or programmed colour loops as they wish. In the conference room, a pendant light illuminates the table, while indirect coloured lighting on the ceiling and walls creates a stimulating environment, which one competition judge described

as having 'Guts', whilst another said: 'The lighting's randomness, individuality and the opportunity to choose your own lighting environment should be applauded.'

Background: Founded in 1969, the IALD aims to set the global standard for lighting design excellence. Based in Chicago, the organization began its Lighting Design Awards programme in 1983. The awards are co-sponsored by Professional Lighting Design magazine, and are given for lighting projects that display high aesthetic achievement backed by technical expertise. Entries are

submitted into one of seven categories: Academic/Institutional; Corporate; Hospitality; Monumental Structures/Public Spaces; Residential; Retail/Entertainment; and Site/Façade. Additionally, projects can also be submitted for consideration in the sustainable design award category, which means the project undergoes an additional round of judging, keyed solely to the fulfillment of sustainable design principles. A panel of award-winning lighting designers and architects review the projects. [www.iald.org](http://www.iald.org).



Heinrich Hermes Michael F. Rohde, IALD, 2004



## HOSPITALS ARCHITECTURE: COMPETITIVE AND HEALING

A modern hospital is a maze of spaces and functions. It is therefore a very complicated undertaking to design such an institution. Continuing developments in technology and methods of treatment mean that the bricks and mortar environment will constantly be subjected to new demands. To add to this complexity, a building design must be tailored to meet the needs of a wide diversity of user groups.

With this in mind, in 2004 the Netherlands Board for Hospital Facilities (NBHF) organised an architectural competition – Future hospitals: competitive and healing – to encourage the development of architectural solutions that meet the demand for future-proof, efficient and humane hospitals.

A book now presents the competition results, and the entry concepts of future hospitals are subjected to scrutiny in a series of themed discussions. Accompanying the book, a CD contains digital reproductions of all entries, to allow readers to further study the individual designs.

Future hospitals: competitive and healing. Boluijt, P. and M.J. Hinkema (eds.). ISBN 90-8517-033-8; 39,50 Euro.

Book review: Michiel Bloemendaal

[www.bouwcollege.nl](http://www.bouwcollege.nl)



Picture from the book Future Hospitals: competitive and healing (C) Bouwcollege, 2005



# M E D I C A L T E C H N O L O G Y



## BS 400N – LIGHT FOR PEOPLE IN THE HOSPITAL

This new medical supply unit is the consequent further development of the BS 400 series.

Individual use, design possibility and future safety were further optimised, resulting in the following characteristics:

- All recess components, e.g. sockets and service elements for optionally one or two bed spaces, are easily accessible for maintenance, extension and changes thanks to cover plates which can be laterally removed.
- A large number of equipment elements in different materials and decors create individual design possibilities for users and architects.
- An easy fixing system at the interior of the vertical profiles enables the easy adaptation of equipment elements for the initial installation or for retrofitting.
- The harmonised accessory range including positionable infusion bottle holders, equipment bases for e.g. injection pumps, installation possibility of a mini bar, safe, etc. complete and extend the use of the system.

**TRILUX**



### TRILUX LIGHTING LIMITED

Medical Technology  
SAXON HOUSE, Swallowdale Lane  
Hemel Hempstead  
Herts HP2 7EA  
Tel. 0 1442 21 4063  
Fax 0 1442 266077  
[www.trilux-medical.de](http://www.trilux-medical.de)