02
2006

Access to medical care

The plight of the sick in Ethiopia

Bilfinger Berger magazine

Health

United Kingdom: National Health Service opts for PPP.
Operating hospitals: positive experience with external service providers.
Pharmaceutical industry: sensitive production processes.

A massive distribution disk from a production facility that Bilfinger Berger Industrial Services has built for the pharmaceutical industry. The facility is designed to separate medical ingredients from impurities under high pressure.

PHOTO: BARBARA BREYER

Dr. Joachim Ott
Member of the Executive Board of Bilfinger Berger AG

Our health is a valuable commodity. This is a fact that we too often take for granted — until we become ill. We then learn to appreciate how important things like effective medication, good doctors and hospitals with competent staff really are.
Bilfinger Berger is helping to secure the availability and delivery of medical care both today and in the future. As a private sector partner we design, build, finance and operate clinics and health care centers. We support the pharmaceutical industry by maintaining and optimizing production facilities. And we develop concepts to improve patient service while at the same time reducing costs for hospitals and rehabilitation clinics. Through it all, the service ideal remains our utmost priority — as you will see in the pages that follow.

Yours truly,

Bilfinger Berger magazine

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Contents

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Come together

The Beatles' concert at Litherland Town Hall is legendary: it was here 46 years ago that "Beatlemania" began. Where once young schoolgirls screamed, doctors now tend to patients. The new Health Centre in the north of Liverpool is reminiscent of the title of a Beatles classic: "Come together." General practitioners and specialists, pharmacists and physiotherapists all work under one roof. The medical centre, designed and operated by Bilfinger Berger, is a patient-friendly way of taking some of the pressure off the health care system.

[TEXT: KIRSTEN WÖRNLE, PHOTOS: RAINER KWIOTEK]

Where the Beatles once strummed their guitars receptionists now greet patients.

Warm reception:
a receptionist at the Litherland Health Centre.

__ Walking across the Litherland Town Hall parking lot on her way to a doctor's appointment, a woman in her mid-sixties pauses to answer a quick question: does she remember the Beatles playing here? Her eyes twinkle with delight through her pink-framed glasses. "Of course I remember them appearing here!" That would be back in December 1960, when posters proclaiming "Direct from Germany," appeared prior to the band's gig here in Town Hall. "Lots of girls started screaming wildly." The Beatles had just returned from Hamburg where they first made a name for themselves, and now the young people of Liverpool were converging on Litherland. "The Beatles' cars were here in the parking lot. Several girls started writing love letters on the windows. With lipstick," says the woman with a smile as we head off inside.

Today, there are no reminders left of those wild times in Litherland Town Hall. The building has become a modern medical practice with bright and friendly consulting rooms, a state-of-the-art X-ray department and small operating theaters. The reception is located in a lofty, oval room with Regency striped walls. Keys clatter as staff in dark blue uniforms enter data into computers, while waiting patients sit in a surrounding ring of chairs. "This was the concert hall," whispers the woman, pointing to the domed ceiling high overhead. Then she turns around and points to a small waiting area with seats bolted to the floor: "That was the stage over there!" Where once the Beatles rocked, there now hang posters on how to give up smoking, the fight against head lice and the benefits of breastfeeding.

Better medical care in the suburbs

Since summer 2005, emergency medical services, general practitioners, heart specialists, dentists, diabetes experts, pharmacists and physiotherapists have been working together in Litherland Health Centre, all under one roof. The facility is known as a Primary Care Centre, a part of the reform of the British health service. "We aim to provide modern medical care where it is really needed," says Centre spokesman Tim Seamons. Some of the poorest urban areas in England are to be

Nurse Mackie can now take full advantage of his medical training, including providing initial diagnoses.

found here in the north of Liverpool. Many of the patients are smokers; chronic diseases are rife, and the diet of the local population is generally poor.

Up to now, those seeking treatment had to travel long distances. Many services were available exclusively in hospitals, from routine examinations and X-rays to treatment for minor injuries. General practitioners' facilities in the United Kingdom have, for decades, been substantially less well-equipped than their counterparts in many other countries. Only 40 percent of practices are purpose-built; 80 percent are considered too small. Many are housed in run-down apartments or former shops.

For some years, the National Health Service has been rolling out a large-scale reform program to bring the system more directly in line with patients' needs. While investors were forthcoming to support hospital modernization, improvements in the provision of basic medical services failed to get off the ground. For this reason, in 2002, the British Government established the concept of LIFTs, Local Improvement Finance Trusts. "We bundle several projects together in order to find investors for medical buildings," explains regional LIFT Director John Garett. We bring together facilities that were previously scattered: specialists in different fields, a pharmacist, a private 24-hour emergency service. And services that were once only available in hospitals can now be found in the suburbs, for instance routine checks for diabetics, treatment for chronic obstructive pulmonary disease and X-rays. "The project is financially interesting for companies that want to get involved in a public-private partnership because so many medical professions are together in one place," says John Garett. "As a result, our health service benefits from investments despite its empty coffers." Under the auspices of the LIFT initiative Bilfinger Berger has already implemented three health centres in the Liverpool area, with three more due to follow in the immediate future. For a period just short of 30 years, in return for a monthly fee, the company will ensure that the hardware is functioning, that the heating and lighting are in perfect working order, that the windows close properly, that the roof

The Centre is open to patients from eight in the morning to eight at night. Emergencies can also be treated at night.

Close-by: a pharmacy is part of the service at the Health Centre.

For X-rays, the doctors simply send their patients upstairs.

doesn't leak — in short, that the building remains in top condition. At the end of this time, ownership of the centres reverts to the public sector.

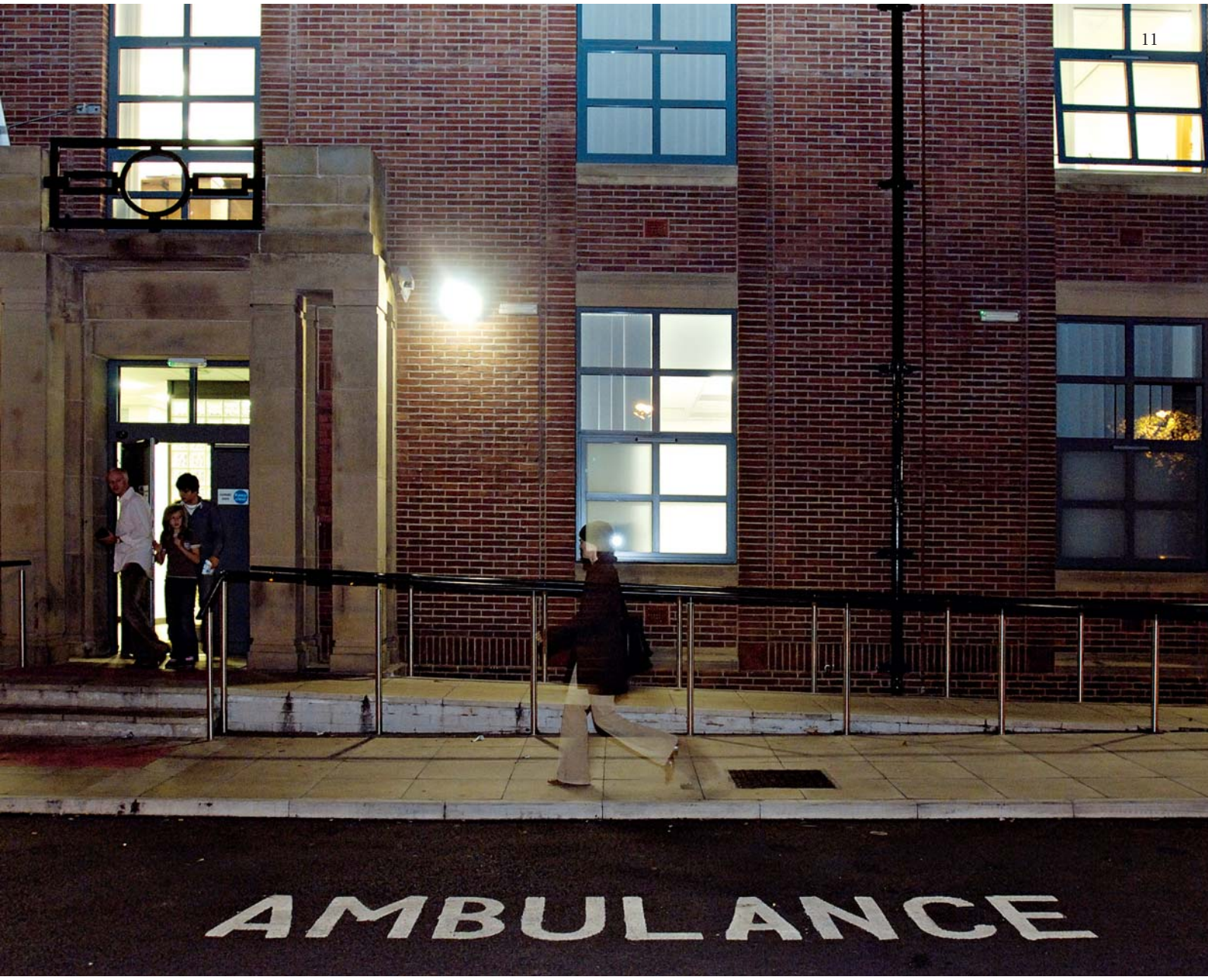
"With the experience of the first three centres, we can now plan with even greater efficiency," says Martin Pugh, Project Director for Bilfinger Berger BOT, the Group subsidiary that specializes in PPP projects. Standardized construction methods reduce costs, flexible partition wall designs allow the building to continuously evolve. "We can keep pace with the development in health services over decades," Martin Pugh explains. Until a year or so ago, Doctor Nigel Taylor practiced in an old building: "My examining room was tiny, the other room was barely big enough for a daybed, and my assistant had to run back and forth through the waiting room to give me a hand." Now the doctor is enjoying the space at the new Litherland Health Centre and is delighted at the extra service he can offer his patients: "I no longer have to send them to the hospital for an X-ray, I just send them upstairs." A pharmacy at the Health Centre also saves the patients from having to travel. And instead of treating 1,800 patients, Taylor now has 2,200 on his list.

More responsibility — more motivation

Paul Mackie is another satisfied man. The male nurse is examining an X-ray on his computer monitor, and zooms in on a small blotch. "Is that normal?" asks a female colleague, indicating the dark shadow on a foot bone. "Yes, it's not an injury," replies Mackie, who used to work in a hospital. In the course of reforming the health service, the role of nursing staff has been upgraded. "There were times in the past when I would gladly have done a bit more, especially when people were complaining about how long they had to wait," says the nurse. But in those days he was not allowed to do what he now does as a matter of routine: he makes an initial diagnosis of patients who arrive without an appointment, analyzes X-rays and prescribes medication. Mackie now has more responsibility, but he is confident that he is up to the task. "The fact that so many professions are gathered together here at the Health Centre is a definite advantage," he says. "If I want a tip from the pharmacist, I only have to cross the hall!"

Come together: the Beatles song resonates in all the stories that are told. Tim Seamons, spokesman for the Litherland Town Hall Health Centre, is quite clear on the subject: "The key to what we do is bringing things together." For example, local groups can use rooms free of charge for their meetings. Volunteers organize courses on giving up smoking and on healthy living. The perspective is changing: "We want to spend less time treating sick people and more time promoting good health."

Kirsten Wörnle, 38, was an editor for the "Badische Zeitung." As a freelancer, she has made medical journalism her specialty. Photos taken by Rainer Kwiotek, 45, appear in German magazines including "Spiegel" and "Focus" as well as in the "Financial Times Deutschland."



Well-established in the UK and Australia

Public-private partnerships in the health care sector

In Germany, public-private partnerships in the health care sector are at an early stage of development. In the United Kingdom and Australia, on the other hand, it has been an accepted way of thinking for some time. As a partner in the British health care system, Bilfinger Berger has, in recent years, built large clinics in Gloucester and Hull. In both cases, complex and cost-intensive health care services were bundled in order to improve the quality of care for patients in medical emergencies.

Basic medical care in the suburbs is also becoming a focal point in the United Kingdom. In northwest England Bilfinger Berger BOT, in a project company together with the public sector, is designing, building, financing and operating local clinics and medical centres , one of which is the Primary Care Centre in Litherland.

In Melbourne, Australia, Bilfinger Berger BOT is developing the Royal Women's Hospital which will open its doors in 2008. The project, with a volume of nearly € 200 million, is seen as an example for future PPP tenders in the state of Victoria and, in 2005, it received an award as "PPP deal of the year" in the Asia-Pacific region. *(si)*

www.bilfingerberger-bot.de

Psychologist Dr. Titze: "We have to allow our inner clown grow."

Laughter is the best medicine

Dr. Michael Titze is a pioneer in therapeutic humor in Germany: a psychologist who helps his patients laugh away their fears. His message: we can only be happy if we learn to make fun of ourselves.

[INTERVIEW: FRIEDERIKE NAGEL, PHOTO: SEBASTIAN LASSE]

Dr. Titze, it's a popular saying that laughter is healthy. Is that really true?
Yes. Laughter has a wide range of positive physiological side effects. It has been demonstrated that even people suffering from depression feel better if they force the shape of their mouth into a smile for twenty minutes.

What exactly does laughter do to us?
It makes our inhalation deeper and more prolonged, while the exhalation becomes shorter. All in all, laughing causes us to breathe more intensively, increasing the oxygen intake of the blood. There is also a positive effect on heart rhythm, and blood pressure is reduced. Laughter runs in waves through our entire muscle apparatus. The tension created in the diaphragm has a massaging effect on the intestines, which in turn affects intestinal functioning in a positive way. Fat metabolism is also stimulated, improving the elimination of cholesterol. The body probably also produces "happiness" hormones. A minute of laughter has a similar effect to doing relaxation exercises for 45 minutes.

Are people with a sense of humor more successful in their jobs?
Of course. In general, people who don't smile tend to be unpopular. Those with a permanent sour grapes expression on their face simply have a tougher time in life. Smiling and laughing while maintaining eye contact helps build bridges.

Is it always a good thing to laugh?
We shouldn't think about it too much. If laughter is natural and uncontrolled it never seems ridiculous. The important thing is simply to let it happen, just as children do. There are studies which show that children laugh up to 400 times a day, while adults only manage 15 times.

Can we learn to laugh more?
We must listen to the child within us — as children we are not so aware of what other people might think and we are less prone to self-control. And anyway, self-mockery is the key to the world of humor.

In your work you use humor as a therapy with patients. What sort of people come to you for help?
They are often people who grew up looking at stony faces, and this has led to a feeling of rejection. When someone smiles at you, you feel valued. The people who come to me for therapy have problems with self-esteem and with other people's expectations, or they have an exaggerated sense of shame. They have a fear of being laughed at or not being taken seriously. Often aged between 40 and 50, they will have suffered many disappointments in their working lives. My approach to using therapeutic humor is not about making patients laugh at all costs. I try to help them develop a positive, courageous attitude to life which includes having a sense of humor.

How do you teach this happy approach to life?
I use paradoxical, provocative methods to help patients learn to laugh at their fears. For example, with people who have an exaggerated fear of shame, I act out situations with them which they have experienced as embarrassing — such as having lunch with new colleagues in the company canteen for the first time. Patients re-enact these embarrassing moments in the style of a parody or a caricature. It is this ability to overstep the limits and disregard normal barriers which makes humor possible in the first place. Life requires us to be bold enough to laugh at ourselves.

Does that mean we should make fun of ourselves?
Yes. For example, if a colleague asks you with a teasing undertone if you've understood an article in a specialist journal, you could, instead of launching an explanation, fire off a quick-witted response such as: "I don't have any problems with the text — I always just look at the pictures." Or if a female colleague remarks on your 'loud' perfume, you might give her a smile and say that you were in a hurry and must have grabbed the mosquito spray by mistake. If we dare to make ourselves look ridiculous, we can be "shameless" in the literal sense of the word, and break the spell that usually paralyzes us.

But surely there are moments when we simply don't want to laugh?
Of course. Some people only laugh because they think it is expected of them. This is a form of compulsive behavior and actually makes it more difficult to laugh freely.

People from other countries often say that Germans are very serious — is that true?
Humor therapy originates from America; at international congresses I meet colleagues from all over the world. My impression is that Germans have a healthy sense of self-irony and are actually quite at ease with themselves. Southern Europeans tend to be regarded as relaxed, but in fact they lack this gentle sense of self-mockery. We Germans have allowed the clown within us to grow — and that may be something which has happened over time.

www.michael-titze.de

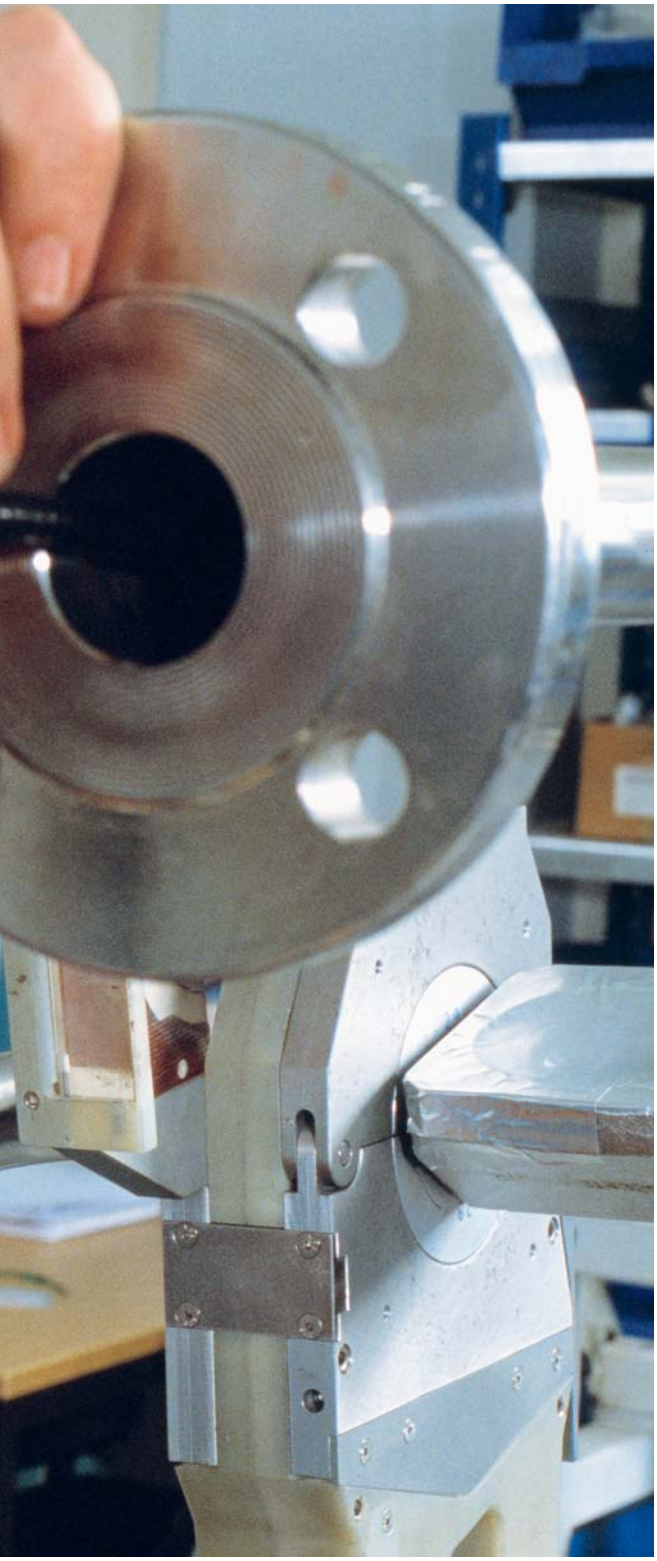
Finding the right chemistry

Ramipril is a lifesaver for many people. It lowers blood pressure and reduces the risk of heart attacks and strokes. The production of such drugs is a sensitive process. The slightest deviation in product quality can have disastrous consequences for those who depend on them. Bilfinger Berger Industrial Services supports pharmaceutical industry giant Sanofi-Aventis in the production of this coveted active ingredient.

[TEXT: STEFAN SCHEYTT, PHOTOS: BARBARA BREYER]

Daniel Pázmán uses an endoscope to check whether the weld seams inside the tubes are fine enough.

Samples of Ramipril are taken in the clean room environment.



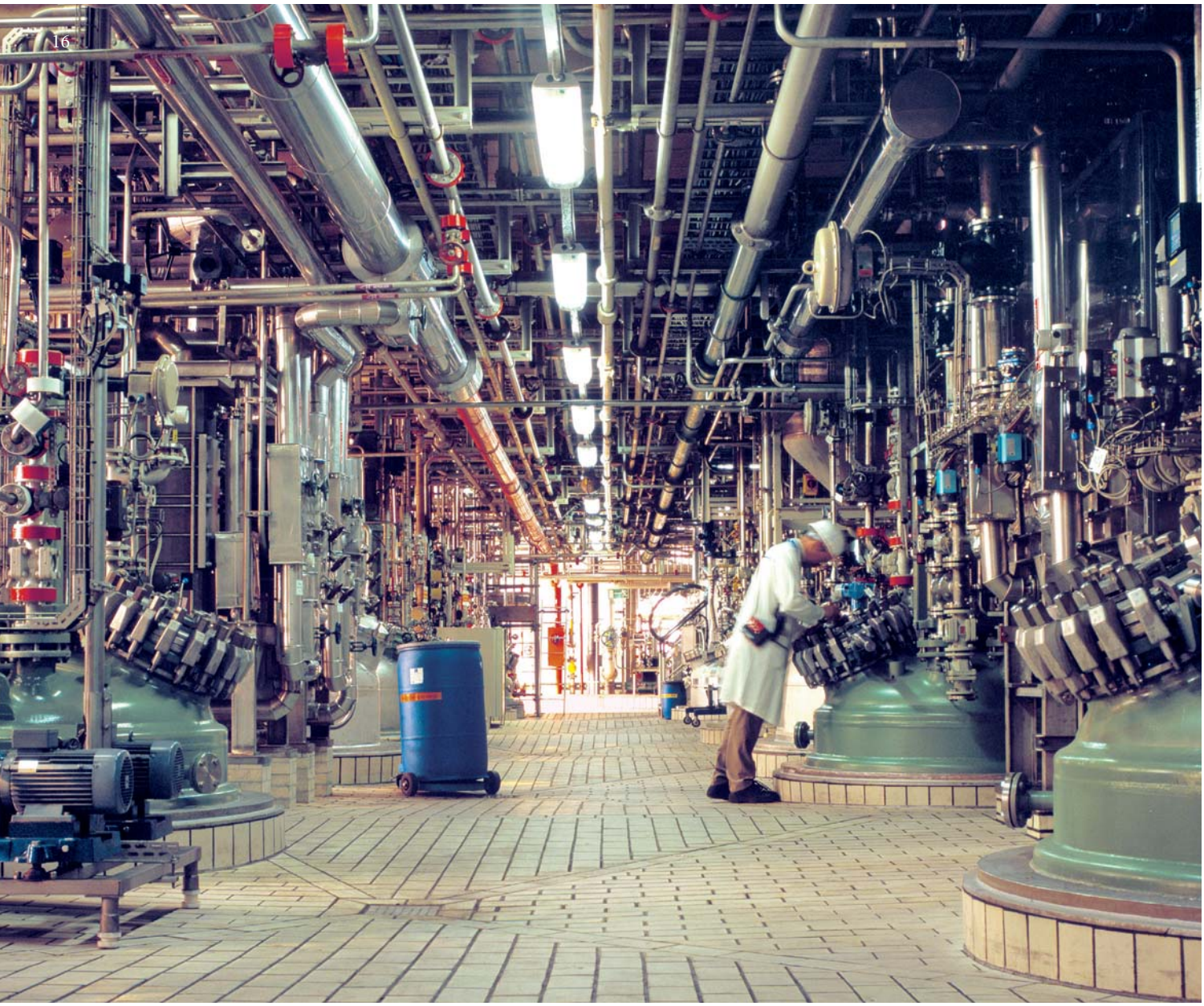
__ The substance bearing the name Ramipril is a real star — one only catches glimpses of it from a distance. It is a white powder trickling through a funnel into a drum behind panes of glass which protect the clean room. Within the clean room, the substance has traversed three stories of the factory building, passing through kilometers of tubes, over a hundred vessels, three centrifuges, two dryers, two solvent treatment plants and countless pumps, at temperatures between 0 and 100 degrees Celsius and under high pressure. A fully automated process which involves ten stages of chemical synthesis.

The producer of the substance, Sanofi-Aventis, is understandably reluctant to reveal any further details of how Ramipril is produced. It is, after all, the vital ingredient in top-selling medications, the success of which has earned them the title of "blockbusters": last year alone, Ramipril preparations generated sales in excess of a billion euro for drug maker Sanofi-Aventis.

Sensitive production

This success reflects a health problem affecting people all over the world: almost six percent of all deaths are attributable to high blood pressure. Ramipril intervenes in the complex system of messenger substances that control heart function and blood pressure. One of these messengers is the hormone angiotensin, which constricts blood vessels and thereby increases blood pressure. Ramipril inhibits the body's own enzyme which is involved in the production of this hormone. As a result, less angiotensin is produced, the blood vessels expand and the heart is no longer forced to pump against such high resistance. The risk of heart attacks and strokes is reduced.

Sanofi-Aventis manufactures this substance in Frankfurt, in the Industriepark Höchst, right next door to Bilfinger Berger Industrial Services. Bilfinger Berger helps to maintain the production equipment used by a number of companies in the Industriepark, including the Ramipril plant D712 operated by Sanofi-Aventis. One man who knows his way around here is Wolfgang Seeling. A quick glance at the worn folder on his desk is



Kilometers of pipes and over a hundred vessels: producing medical ingredients is a complex process.

proof of that. It lists the orders received in recent years for the D712 plant — well over a hundred of them. Seeling was there just the day before to reset the zero point of the level indicator that shows the contents of one of the containers. Level indicators and pressure gauges — these are his specialty. He knows, for example, how to tune a level indicator to prevent disturbance by an agitator inside the vessel which would otherwise cause it to show an incorrect reading. "We call it tuning out parasitic echoes," explains Seeling.

There are some sectors in which a liter either way does not matter — or a kilo or a few degrees Celsius. But the pharmaceutical industry tolerates no deviations of measurement. Least of all in the production of highly sensitive ingredients, where even the slightest variance can have a negative impact on patients.

Ask Wolfgang Seeling why Sanofi-Aventis, the world's third-largest drug company, does not itself install, calibrate and service such sensitive equipment, and he goes to a cupboard containing two dozen pressure gauges. Then he produces page after page of instructions detailing how to commission each individual type and asks rhetorically: "Why should Sanofi-Aventis concern itself with such a specialized field? Their business is researching drugs."

Just how engineering-oriented the maintenance business can actually be becomes clearer just a few doors away from Wolfgang Seeling's office, in the Bilfinger Berger Industrial Services testing laboratory. This is Helge Essig's workplace. On behalf of Sanofi-Aventis he tests the accuracy of temperature sensors that can simply be clamped onto the outside of tubes rather than being screwed into the pipe itself. This makes it easier to keep the tube sterile. The laboratory has now developed into a kind of watchdog for measuring equipment. It is not just plant operators such as Sanofi-Aventis that have their gauges tested here — even the manufacturers use the laboratory's services.

Laboratory engineer Helge Essig is involved in development and testing at Bilfinger Berger Industrial Services.

Bilfinger Berger has shared responsibility for the measuring equipment at the Ramipril plant ever since D712 was redeveloped a few years ago. The equipment that is now used to measure the material concentrations in containers and pipelines was designed by Bilfinger Berger Industrial Services. These devices automatically monitor changes in mixture concentration, a technique which is faster and more cost-effective than taking samples for laboratory analysis. The same team which conceived and installed the analytical system has since maintained the measuring points. This is one of the company's particular strengths, says Manfred Sturm, one of the engineering specialists at Bilfinger Berger Industrial Services: "We stay on the ball throughout the entire life cycle of the production plant."

High standards, utmost precision

The range of services provided by Industrial Services at the Industriepark Höchst also includes tasks such as scaffolding and staging, insulation and corrosion-proofing. But even where it would be least expected at first glance, extreme precision is called for. Dirk-Harald Bestehorn paces through a workshop in the Machinery and Drive Systems section: lying on the floor at one end is a pallet containing dozens of pumps, electric motors, valves, condensers and gearboxes. Many are rusty, scratched and soiled. Some are the property of customers, others number among the pool of 12,000 units rented out by Bilfinger Berger Industrial Services. Here in this workshop the units will be completely dismantled, cleaned, serviced, repaired, fitted with new parts, reassembled, given a coat of paint and bench-tested. "When they leave here they're like a new piece of machinery," Bestehorn confirms. Every individual stage is also meticulously recorded. "If it isn't written down, we didn't do it," he adds. Back in his office the mechanical engineer produces a micronizer for the Ramipril plant and demonstrates how inspecting a single piece of equipment can fill an entire file: Every component which comes into contact with the product requires a declaration confirming it is safe to use; every lubricant used, every cleaning agent, even the tiniest gasket must be approved; whole reports are on file confirming that certain surfaces are devoid of scratches which might harbor bacteria: "The standards in the pharmaceutical industry are the highest you could ever imagine."

"Superb interplay"

If it were not already clear, one look at this folder is enough to make it obvious that the extreme complexity and sensitivity inherent in the manufacture of a substance such as Ramipril are best accommodated by a division of labor between specialist partners. "Manufacturing an ingredient such as this is a superb example of the interplay between engineering and chemistry," enthuses Dr. Werner Sievers, production manager at D712.

The Industriepark Höchst provides the ideal conditions for Sanofi-Aventis and Bilfinger Berger Industrial Services to work together. Created originally as a result of the spin-off of individual activities from Hoechst AG to a variety of independent companies, the Park today is home to more than 80 businesses, from large multinationals to creative services providers. Together they represent an extraordinaryly dynamic force, says Dr. Joachim Kreysing of Bilfinger Berger Industrial Services: "Each year around € 350 million is invested in the Industriepark — that's even more than in the heyday of Hoechst AG."

Photographer Barbara Breyer, 43, admires the aesthetic aspect of machines — and the people who tend and understand them. Author Stefan Scheytt, 44, specializes in complex industrial and economic subjects. His reports can be found in publications including the "Neue Zürcher Zeitung".

Service is a question of character

Clinics in Germany are under tremendous pressure to save money. ahr Service, a subsidiary of Bilfinger Berger, is helping medical institutions to optimize their costs, operations and services. And patients are benefiting too.

[TEXT: MICHAEL BRANNERS, PHOTOS: BARBARA BREYER]

__ The new patient hardly has time to haul himself out of his car before Herbert Lehmann is there, bidding a hearty welcome to the Dörenberg-Klinik and offering his help. In this case, his help is much appreciated. After a riding accident that resulted in two operations, the patient is due to begin three weeks' rehabilitation at the clinic in Bad Iburg. At the moment though, he is still hobbling around on crutches, so Lehmann is a more than welcome sight.

Clinics turn to the feel-good factor

Herbert Lehmann is what might be called the clinic concierge. With his obliging manner and his uniform — dark blue trousers and vest over a light blue shirt — he is the kind of figure you would expect to encounter in a hotel lobby, rather than in a clinic like this one. "To me a new patient is simply a new guest," says Lehmann, and guests, after all, deserve to be treated with hospitality.

Herbert Lehmann is there to greet new arrivals at the foot of the steps leading up to the main entrance; he carries their bags, introduces them to the dietician, conducts them to the dining room where they can choose a table, then finally takes them to their room. Naturally, he has to field a multitude of questions: What about lunch? Where is the nearest elevator? Who will tell me when and where I have to go?

"The older guests in particular are sometimes a little unsure of themselves," he reports. "Sickness, a strange environment, lots of new faces: it's easier for them to settle in if there is someone there straight away to look after them." Lehmann's job was created halfway through this year. "We believe in the feel-good factor," says clinic general manager Frank Schmees. The hospital sector in Germany is undergoing an upheaval as competition becomes fiercer. Managers like Schmees need new ideas on how to position their facility in the marketplace: external service providers can help. For example, Herbert Lehmann doesn't work directly for the Dörenberg-Klinik — he is employed by ahr Service. The company, along with its 4,000-strong workforce, has been a part of Bilfinger Berger Facility Services since March 2006.

The Multi-Service Group now includes a service provider specializing in the health sector with a client list of around 200 institutions. The range of tasks undertaken by the new group member extends from cleaning and hotel-standard catering to commercial services. ahr handles invoicing, financial accounting, payrolls and controlling on behalf of service companies in the hospital sector.

Service providers lighten the load

Other services have a more immediate attraction for patients, for example, the "rolling restaurant" which ahr operates at several clinics. Rather than being

Herbert Lehmann greets new arrivals outside the main entrance.

Selecting the right personnel is what makes the difference: "Service isn't just something you learn."

pre-portioned, midday meals are delivered to the wards on a buffet trolley, allowing patients the opportunity to choose what they fancy from a range of dishes.
On some of the wards at the Dörenberg-Klinik, ahr has taken on a number of tasks which elsewhere fall to the nursing staff, even though they have little to do with nursing as such. According to a current study, qualified medical personnel in Germany spend as much as a third of their time on duties unrelated to patients or their medical care. Turning these tasks over to well-trained service staff enables nurses to concentrate on what they in turn are trained for, thereby taking some of the pressure off doctors.

Solving the financial plight

There are some 2,160 hospitals and clinics in Germany. According to auditors Ernst & Young, about a quarter of these are likely to disappear from the market by the year 2020. For reasons that include, among other things, the changeover to so-called flat rate case fees, Germany's hospitals are under pressure. The health insurance companies now pay a fixed rate for many of the treatments and operations performed in acute cases — the actual duration of a patient's stay in the given hospital is no longer the deciding factor. Aftercare centers such as the Dörenberg-Klinik can still charge for the days a patient spends in their care, but they are compelled to manage with substantially lower rates of payment than, say, ten years ago. The DKG, the umbrella organization representing German hospitals, is calling vehemently for more money to be pumped into the system. Not that this is likely to happen just now — and therefore economy is on the agenda. On the other hand, hospital manager Frank Schmees does not intend to focus on costs exclusively — in his opinion, there are already too many rehab clinics that have cut back drastically on their services. "In some cases all they offer is group therapy," he says, "and that's not the way." Schmees intends to take an entirely different direction, by widening the clinic's services and expanding the existing medical center together with doctors in private practice. A proportion of the rooms are to be redeveloped to a high standard in order to attract more private patients. Here too, ahr can be of assistance — one of its services is to run what are called "patient hotels" on behalf of its hospital clients. These facilities are designed to accommodate those who still qualify as hospital patients needing medical attention, but who are sufficiently recovered so as not to require intensive medical attention.

Enjoying contact with people

Following the success of pilot projects on some of its wards, the Dörenberg-Klinik now intends to deploy ahr personnel throughout to relieve its nursing staff.
"Our experience has been positive in the extreme," says nursing manager Margret Köhnen. What makes the difference is selecting the right personnel. "Service isn't just something you learn. Whether you are good at it is a question of character," emphasizes ahr customer care officer Marlies Bramann. "The most important thing is to enjoy contact with other people," comments staff member Andrea Gerboth on her job on the ward. In contrast to the traditional white nurse's uniform, her yellow and white striped blouse identifies her as an ahr Service employee. Not that the patients are usually bothered about the distinction: "They often call me 'Nurse.'" Each morning Andrea Gerboth makes a list of which patients she has to escort at specific times to their particular treatment programs and when she has to pick them up again. In between she takes blood samples to the laboratory, collects urine samples, fetches a special mattress from the stores, and dispenses her gifts with generosity: ice for cooling, and plenty of kind words.

Reporter Michael Branners, 38, had an immediate introduction to the concierge of the Dörenberg-Klinik on his arrival — Herbert Lehmann mistook him for a new patient, greeted him warmly and immediately offered to attend to his luggage. Barbara Breyer, 43, also photographed the production of pharmaceuticals at Sanofi-Aventis for this issue (page 14).

From room service to commercial services in the health care sector: ahr has all the corners covered.

The gold of the gods

As far as the eye can see, the silvery green leaves of the olive trees of the Kolymvari region vibrate. In the evening, local farmers gather in the traditional Cretan coffee shop to talk and eat bread with olive oil. "Siga, siga," they say: "take it easy." This is how the people of Crete manage to live to a ripe old age: the oil is good for their health. Most notably, it protects against cardiovascular disease.

[TEXT: BARBARA SCHAEFER, PHOTOS: LUKAS COCH]


Coca-Cola

The oil flows freely: the average per capita consumption in Crete is 35 liters a year.

__ It's a hot morning; there's not much movement to be seen apart from the shimmering air above the olive trees. But the mood at the kafenion, a traditional coffee shop, is tumultuous: "The Italians come here with their tanker ships and buy our olive oil to enhance their own oil and then they export it as Italian oil," Eftixis Tsilimigakis says annoyed. But the 41-year-old doesn't raise his voice. Thoughtfully, he picks up his glass of raki, a Cretan schnapps, and sips at it. Today, as every day, he meets with other olive farmers from Spilia at the kafenion in the late morning.

This is a well earned break for the farmers. They drive out to their olive plantations before sunrise, where they "cut out all the branches growing on the inside of the tree or downward, as good olives only thrive in the sun," as Eftixis explains. Then for his visit to the kafenion, he dons a blue shirt, which he leaves unbuttoned down to the top of his pot belly, his chest covered in the same dark, curly hairs as his head. The conversation mostly revolves around his favorite subject: olives.

Olive leaves to crown champions

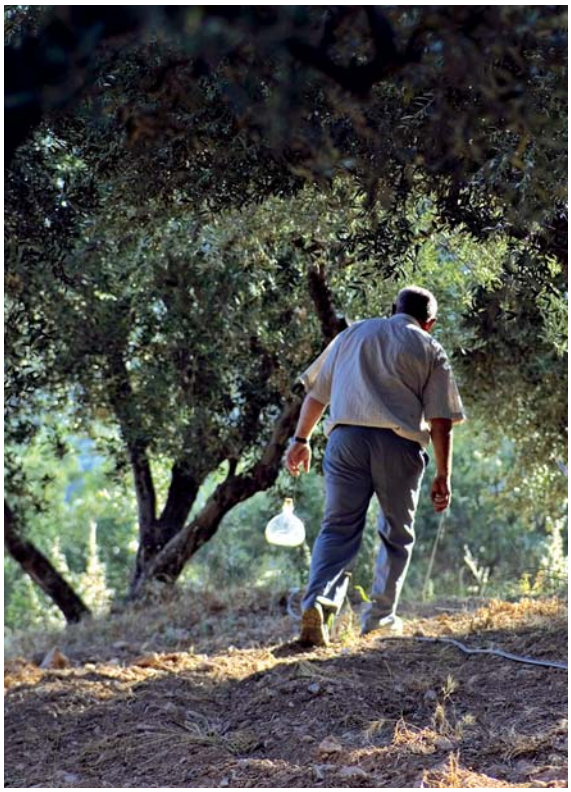
There are 35 million olive trees on Crete. The Kolymvari region in the west of the island is home to what is believed to be the world's oldest olive tree. It is 5,000 years old. When its first shoots emerged from the ground, Crete was already home to Europe's first advanced civilization, that of the legendary King Minos. The Minoan palace at Knossos housed 80,000 liters of olive oil stored in jars as tall as a man. The systematic cultivation of wild olive trees began around 2,000 BC. The ancient Greeks rubbed the oil into their bodies and fashioned victors' wreaths out of the twigs to crown their champions. Incidentally, the winners of the marathon at the 2004 Summer Olympics in Athens were awarded an olive wreath — from that same 5,000-year-old tree on Crete.

But most of all, olive oil has always been used in cooking. The Germans manage with a single liter bottle of olive oil a year, while the Italians and Spanish use ten liters on salads and in their pots and pans — but the Cretans consume 35 liters a year. Yet even this level of consumption is by far surpassed by Joanna Katsanebaki Patelaki. Joanna is a chef working in a 600-bed hotel. She uses 400 liters of olive oil a year — not at the hotel, but at home. In her five-person household, this amounts to 80 liters per person. That much of sunflower oil or lard would soon see a person six feet under, but the simple, unsaturated fatty acids in olive oil reduce cholesterol levels and protect the arteries from becoming clogged.

Consuming copious quantities of olive oil helps prevent heart disease. The American researcher Ancel Keys was the first to study this scientifically. He noticed back in the 1950s that a large proportion of people on Crete lived to a ripe old age. In conjunction with medical professionals from other countries, he investigated how the

Chef Joanna loves to cook with the emerald green oil from her native village.

Ripening olives in the morning sun
in an olive grove in the west of Crete.



A farmer checks his trees.
The bottle is a trap for the dreaded olive fly.

foods people eat affect their life expectancy and came to the conclusion that there is no healthier combination of foods than the daily fare of the inhabitants of Mediterranean nations, and Crete in particular.

"My favorite food is vegetables," enthuses Joanna the chef. You can prepare vegetables in so many different ways, she says: fried, baked, or grilled, and of course she'd never use anything else but the "gold of the Gods." With it, Joanna likes a slice of dark Cretan bread — also, you guessed it, baked in olive oil. She likes fish, too, but meat is rarely served in her house. Joanna's traditional diet consists of exactly what the medical establishment says people should eat in this day and age.

Joanna comes from a village in the White Mountains; one of her neighbors there is 107 years old. Another woman is 93 and lives on her own. Joanna's father is 86 and, she says, "he's never been to the doctor, his diet consists of wine, bread, garlic and olive oil." Joanna's oil from the village of her birth is emerald green with a taste reminiscent of the smell of freshly cut grass. "The taste of the oil shouldn't be scratchy on the palate or throat," says Joanna.

When Joanna, now in her late thirties, was a child, her family didn't have a refrigerator; everything was conserved with olive oil, even cheese was marinated in oil — and orange juice was kept fresh with a layer of olive oil on top. If her own children came down with a fever, she'd prepare an infusion of chamomile and olive oil and rub them down with it. She drizzled olive oil on wounds, too, and believes that "slowly drinking a teaspoon of it every morning" wards off a cold. Joanna's homemade remedies gained a new scientific basis in 2005 when American researchers discovered oleocanthal in olive oil, a substance that has anti-inflammatory and pain-killing properties similar to the drug Ibuprofen.

The olives are processed quickly

As far as the eye can see, the silvery green leaves of the olive trees vibrate in the hills around Spilia. Only in the more recent plantations, those planted within the last fifty years, are the trees aligned in regular rows like chocolates in a box. Eftixis harvests them the old-fashioned way: by hitting the trees with a stick and collecting the olives that fall. The only difference these days is that Eftixis hangs nets under the trees so that the olives do not fall on the ground but into the nets. And, he stresses, "we take them to the mill that same evening."

Food chemist Fotis Sousalis regularly checks the quality of the olive oil.

Vouves, in the west of the island, is home to the world's oldest olive tree. It is more than 5,000 years old.

It is above all the speed of the processing that makes the Cretan olive oil a top-quality product and ensures that the acid content is low.

In the olden days, there weren't many mills on Crete, so the olives were gathered and sent off once a week. The fruit spoiled and went moldy in the plastic sacks. "Here on Crete we don't do that anymore!" Eftixis assures us — olives like that would fail the experts' quality test — performed with their eyes and noses. People from Terra Creta, a firm that bottles Cretan olive oil for the international market, are always going back and forth to the mills to examine the freshly pressed olive oil. The aroma and taste tests come after the lab tests conducted by the young food chemist Fotis Sousalis. Olive oil production appears to be easy at first glance: you plant a tree, wait twenty years, shake the olives off the branches, press out the oil and bottle it — how could that be difficult? "Pesticides, herbicides, fertilizers, plastic sacks, lengthy storage periods, plastic tubes for bottling," all of these are areas where people can get it wrong, explains Fotis. Not to mention fraudulent activities such as unauthorized heat treatment and blending. It is hardly surprising that an oil treated like that loses all of its health-giving attributes.

"Our ancestors used a lot of chemicals," says Eftixis. "These days, we simply turn over the grass beneath the trees and fight the olive fly with a small range of insecticides or with traps if the farm is organic." Consumers appreciate the effort. Terra Creta's best-selling oil is its Kolymvari brand, even though oil covered by the protected designation of origin is more expensive. It therefore pays off to bottle the good Cretan oil locally rather than "selling it to the Italians," as Eftixis puts it.

This is what they talk about when they sit down together in the heat of the day at the kafenion, where they snack on cucumbers, tomatoes and dry bread and drink their raki schnapps. Raki is enjoyed in much smaller quantities than olive oil. The farmers don't tip their glasses, they just sip at them. "Siga, siga," as they say: "take it easy."

For Lukas Coch, 25, Crete made a welcome change to his hectic everyday life. He usually spends his time photographing soccer matches in Germany's First Division, the Bundesliga. Travel journalist Barbara Schaefer, 45, writes for the FAZ, among other publications. She couldn't get enough of the Cretan olive oil, resulting in some excess baggage at check-in at Heraklion airport.

"I want to go to college and become a doctor — that's my dream."

Where medical treatment is a stroke of luck

[RECORDED BY BERND HAUSER, PHOTOS: RAINER KWIOTEK]

In many countries of the world, when we get sick we take medical care for granted. In others, however, few can afford to be treated by a doctor, and help is often many hours away. Reporter Bernd Hauser traveled through Ethiopia and met people who were given the extraordinary chance of a new life when they received medical treatment in clinics run by the charitable foundation "Menschen für Menschen" (People for People) or MfM. He recorded their stories.

"We have to walk a day and a half to get home. But that's alright."

Muhmad Abdi, 16 years old

I come from Babile in the east of Ethiopia. When I was little I got polio. My knee joints went stiff. My school was a half hour walk away from home. "You can't go," my mother said. For many years I obeyed her. I spent every day in our hut, feeling unhappy and angry. Then one morning I just set off. On my hands. I propped myself up with my arms and dragged my useless legs behind me. It took me two hours to drag myself to school. I went every day after that. I was keen to be learning at last. As a 12-year-old among all the first graders, the teacher had stuck me at the back of the class. But I put my hand up to answer questions all the time; I wanted to make something of myself. Eventually MfM sent me to Addis Ababa. I had an operation there. I was in hospital for six months and gradually learned to walk with crutches. Now I live in the students' dorm run by MfM and I go to a high school. I want to go to college. I want to become a doctor — that's my dream.

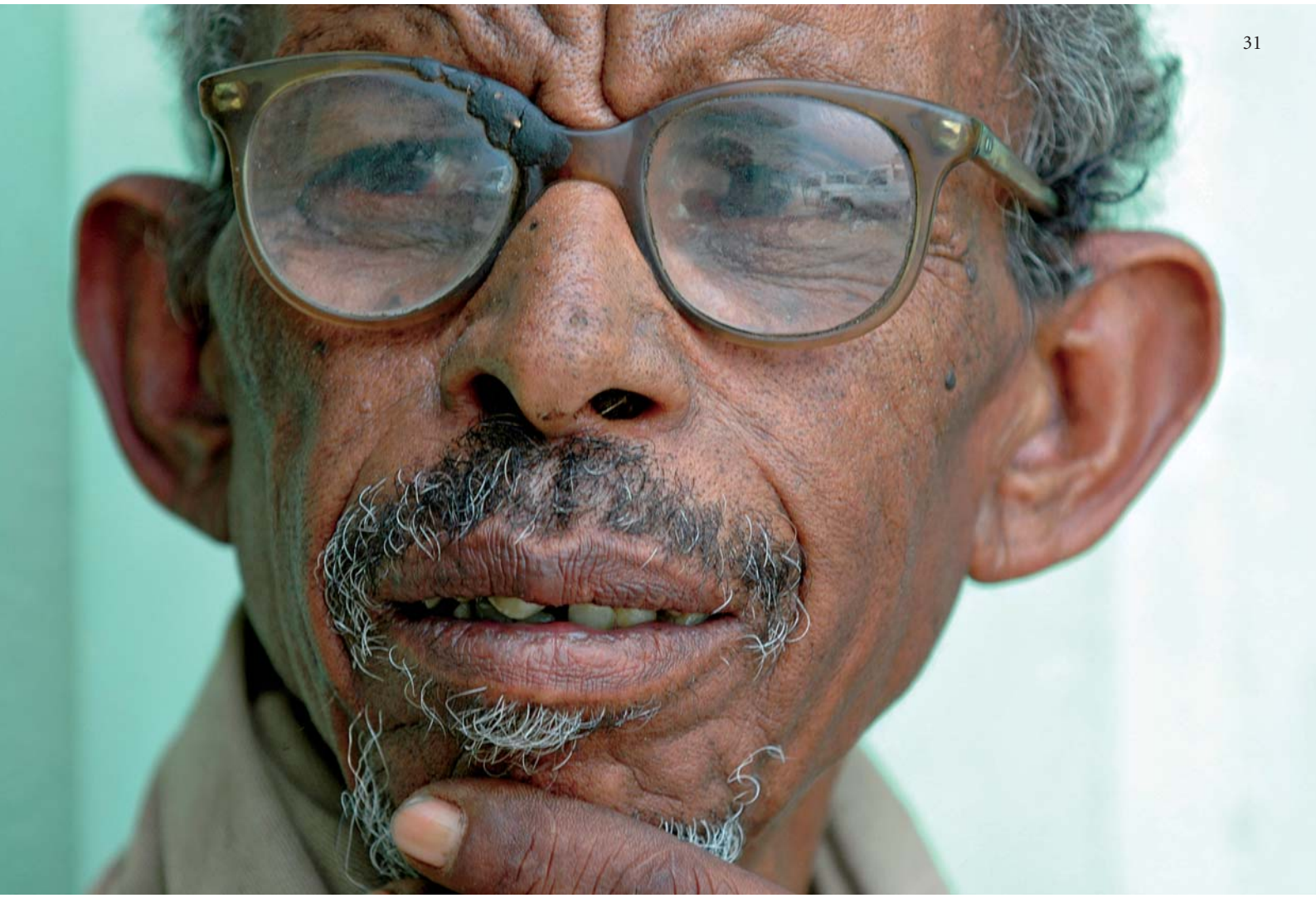
Beletu Aialeke, 8 years old

I was out early one morning gathering firewood. Suddenly a wild dog came out of nowhere. I got scared and ran away, and I fell down a steep slope. I didn't fall very far, but there were sharp rocks on the ground down there. I was bleeding a lot and I had a deep cut from my mouth to my chin. My friend ran home and got my father. Later he told me he thought I was going to die. My father borrowed a car and took me to the MfM hospital in Alem Katema. The car owner wanted 300 birr for lending him the car. My father has to work two months to earn that much money. I cried all the way to the hospital. When I got here I was given injections to stop the pain. A doctor sewed me up and then I had to stay here for nine days. My father was with me all the time. He will sell one of our two oxen to pay the car owner. When he needs to plow the field now, he'll have to borrow an ox from our neighbors and pay for it. But he's not mad at me. He said he's so happy that I'm better. I'm getting out of hospital today. But this time we won't be going by car. We'll have to walk a day and a half. But that's alright. I'm looking forward to getting home.

"I'm just thankful that I can live a halfway normal life."

Muhammed Dedschen, 34 years old

I used to be a farmer. Seven years ago I was trying to chase a warthog out of my cornfield, but the warthog attacked me and bit my leg. The wound didn't look bad at first, but then it got infected. Eventually I set off for Addis Ababa, that's four hours away on the bus. I'd get help there, I thought. But I was wrong. I didn't have enough money and the doctors turned me away. I went back home. That's how I lost my lower leg. I wasn't able to work in the fields any more. My wife left me because of that, and she took the children with her: Hassan was just a newborn at the time, and my two girls were two and six years old. I lay in my empty hut for two years, where my relatives tried to look after me but were never really able to help me: the wound just wouldn't heal. Three years ago I heard of the health clinic run by MfM. I went there and a nurse looked at my leg for the first time ever. The wound healed a few weeks later. Then the doctors sent me to Addis Ababa. While I was there I got a prosthetic leg fitted and learned to walk with it. I got married again. Mulu, my new wife, works as a day laborer. She is a good woman. When she manages to find work somewhere, she brings home seven birr (70 euro cents) at the end of the day. The only thing I can do is work for people I know in their stores, and they pay me two birr (20 euro cents) a day. The money we have isn't nearly enough, but I'm just thankful that I can live a halfway normal life.



Abater Derse, 59 years old

"I recognized my youngest son straight away. I cried with joy."

I had ten children. My grown-up sons left home to look for work in some of the big cities. They all died, I don't know what killed them. Seven times I was told one of my sons had died! The tears I shed were like poison to my eyes. Four years ago I saw my little one learn to walk, my youngest son with my second wife. Then I couldn't see anything any more, for four long years. I couldn't work, I lay in my hut sleeping or praying to God to give me back my eyesight. Then someone told me about a new health clinic in Rema, a city not far away. My wife took me there. The doctor said I had cataracts and gave me a date to come back and have an operation. When he took the bandages off my eyes two days after the operation, the first thing I saw was his wristwatch. "You're wearing a watch!" I said, and the doctor laughed. Everything was blurry, but then a woman in the hospital gave me a pair of glasses. I could see properly with them. When I came home, the children ran up to me. My youngest was there, too: he was six years old and a big boy now, not the little two-year-old any more. But I recognized him straight away. I cried with joy.

www.menschenfuermenschen.org

Spreading the word

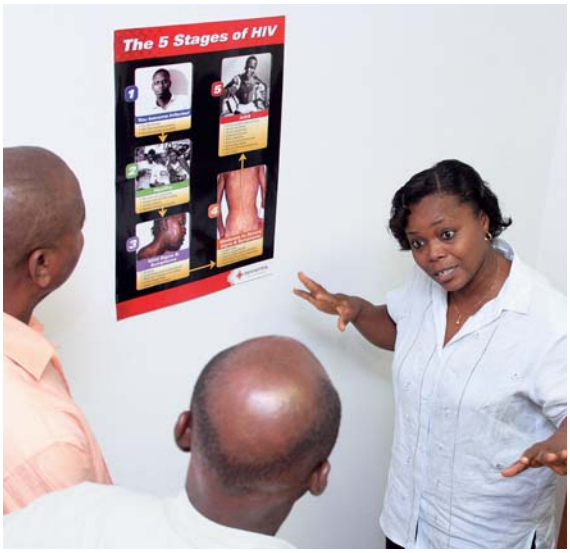
AIDS is not a popular topic of discussion in Nigeria. For this reason, Julius Berger Nigeria PLC makes use of peer education to spread information about the disease and promote prevention: colleagues advise colleagues on how AIDS can be avoided. In September, a program was launched for truck drivers — a particularly high-risk group.

[TEXT: BERND HAUSER, PHOTOS: TONY AZOUGU]

__ When somebody dies young, family members talk of "blood cancer" or "pneumonia." Nigerians go to great lengths to avoid the four-letter word — despite the fact that over 300,000 a year are killed by the virus which does not stop at class barriers. Some 3.6 million citizens are estimated to be infected — five percent of the adult population.

"Men who travel a lot in their jobs are especially at risk," says Elisabeth Girrbach of GTZ, a state-owned German technical cooperation agency. Truck drivers and businessmen frequently contract HIV while traveling — and spread the virus further. The GTZ provides assistance for companies in combating AIDS: in Nigeria, it supports the "Nigerian Business Coalition against AIDS" (NIBUCAA). This organization is an association of three dozen companies, including Julius Berger Nigeria PLC (JBN) — one of the country's largest employers, with a staff of 16,500. "Julius Berger is one of the

Truck drivers with condoms practice peer education at Julius Berger in Nigeria.



Don't be afraid to speak out: a health expert provides AIDS education for truck drivers.

driving forces behind the anti-AIDS coalition," says Elisabeth Girrbach. The association organizes its educational campaign against AIDS from an office in Lagos which is made available and logistically supported by JBN free of charge.

In addition to its involvement in the umbrella organization, JBN is now launching a prevention program for its own staff. It is based on the idea of peer education: colleagues inform each other. "Studies in other African countries have shown that education among peers is more successful than information campaigns initiated by superiors, teachers or doctors," explains Dr. Martin Wilczek, Chief Medical Officer with Julius Berger. The company employs a total of ten doctors to provide free medical care for employees throughout the country.

The program is initially geared towards the high-risk group of around 500 truck drivers who transport material from the sea ports to construction sites all over the country. "First of all, we identify drivers with a certain charisma," explains Hartmut Tolle, who initiated the project with Martin Wilczek. "They are then trained to be trainers themselves so that they can tell their colleagues about the disease and how it is spread." The program starts with the first "train-the-trainer" session in September and will be evaluated after three to six months. "If we are successful and the drivers really do start to change their behavior — by using condoms, for example — we will introduce the program at all our sites," says Dr. Wilczek.

As Hartmut Tolle explains, the drivers will also take their new knowledge to their home villages. "People who work for Julius Berger have a solid, regular income and so they enjoy considerable social prestige: we hope our people will use their influence to talk to their friends and neighbors about AIDS, too. This is the only way the initiative will go beyond the company and start to take effect in society at large." This is crucial because the disease inevitably results in catastrophe, for both those infected and their families: Nigeria is still a developing country with rudimentary health and social care systems, so there is no escape once AIDS strikes.

This is why it is so important for companies to get involved in prevention, says Hartmut Tolle: by providing information, condoms and free AIDS tests. In recent years, some three and a half thousand Julius Berger employees have taken advantage of the opportunity to undergo an AIDS test. As anticipated, the number of those testing positive was high.

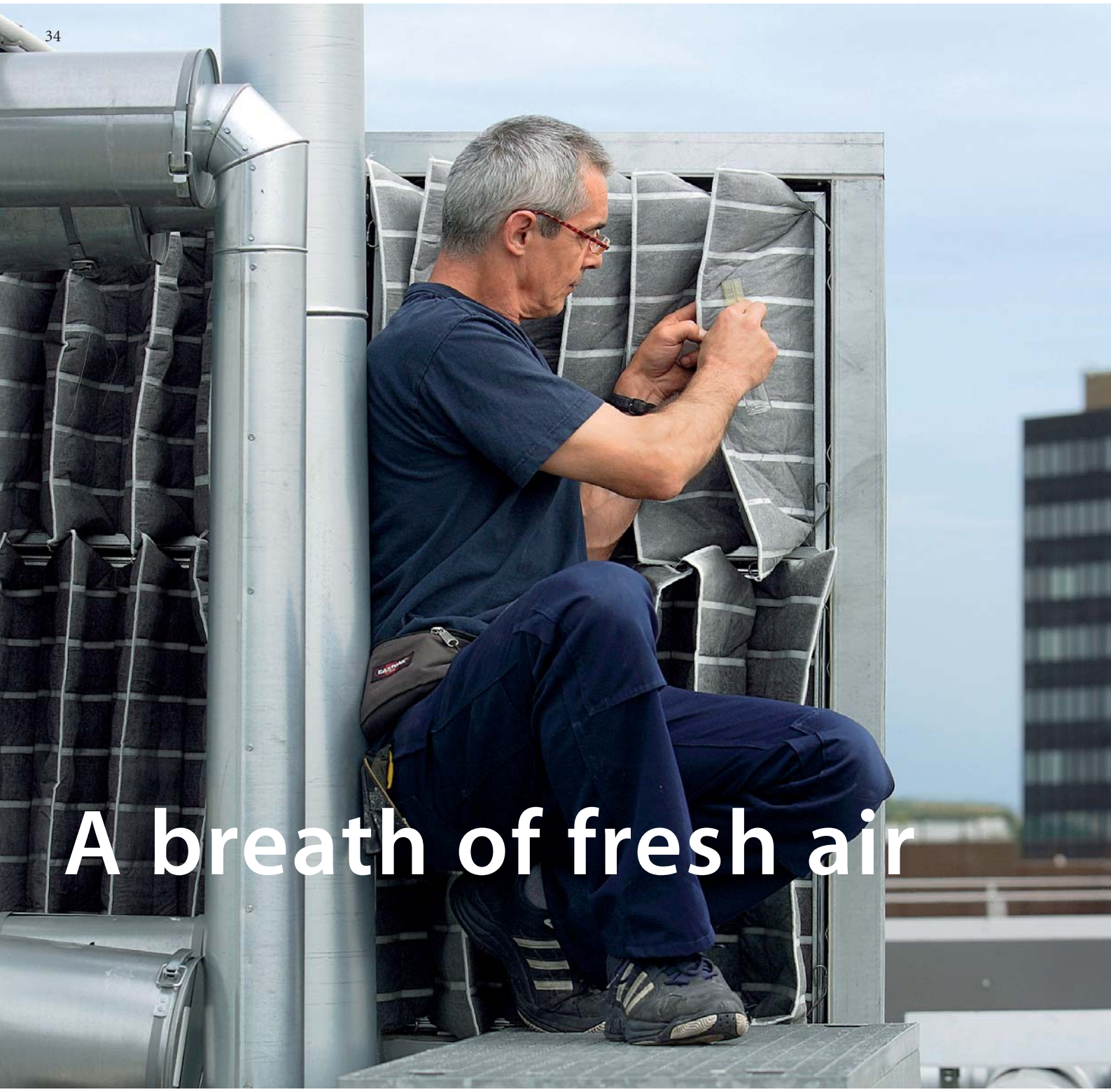
"We have great hopes for the success of our new peer education program," explains Martin Wilczek. "People simply have to learn that unprotected sex is extremely dangerous."

www.gtz.de
www.nibucaa.org
www.julius-berger-nigeria.com

Health care is up to the employer

Julius Berger operates its own hospitals

In Nigeria, sick people depend on the help of their families or their employers. This is why Julius Berger Nigeria PLC provides a wide range of health care services for its staff, not only in terms of prevention and screening but also in the event of occupational accidents and illness. In Abuja, the company has its own hospital with two additional clinics in Lagos and Port Harcourt. The larger construction sites also have health centers where staff have access to free treatment. Julius Berger Nigeria is part of the Bilfinger Berger Group.



A breath of fresh air

Buildings can make us sick — and defective ventilation and air conditioning systems are often the cause. Bilfinger Berger hygiene experts and process engineers say that the air inside buildings deserves to be treated with the same care as the food we eat and have stepped up their close cooperation.

[TEXT: BERND HAUSER, PHOTOS: CHRISTOPH PÜSCHNER]

__ When researchers examined Ötzi, the mummified neolithic corpse found under a glacier, one thing in particular surprised them: his lungs were as black as a chain smoker's. Tobacco didn't exist in the Ötztal Alps 5,200 years ago. The explanation for Ötzi's black lungs was that he suffered from a neolithic version of the so-called "sick building syndrome".

Sick building syndrome refers to acute health-related disturbances that are caused by buildings: eye irritations, respiratory infections, drying mucous membranes

Building technician Manfred Hotz takes a germ sample from filters in the ventilation system at Megaron in Mannheim.

Holger Pitzer measures the quality of the outside air: the air inside is healthier.

and skin, mental fatigue, circulatory problems and headaches. The reasons for the symptoms have not been conclusively researched, but one thing seems clear: inadequate air hygiene is the primary cause.
This was Ötzi's problem, too. He sat around the open fire of his dwelling every day, while the acrid smoke found its way into the air sacs of his lungs. Today, of course, the air inside buildings contains different irritants: poorly built or incorrectly adjusted ventilation and air conditioning systems trigger drafts and dry air inside rooms, spread odors, are too noisy and may even be contaminated with fungi or bacteria, resulting in allergies and infections. The result: physical and mental stress.

Plan well, maintain regularly and breathe easy

"Air is a foodstuff!" says Michael Sauerwein, Head of Building Equipment at Bilfinger Berger Building: "We have to pay attention to where we get the air that we pump into buildings, how we transport it and how we keep it clean." Sauerwein is convinced that a prophylactic approach provides the best protection when installing ventilation and air conditioning systems. "That's why we exchange information with our colleagues in Facility Services as early as the design stage." In the Facility Services division, Bilfinger Berger has bundled all property and real estate service companies, including the HSG Group, a technical services provider — which is where Sauerwein's contacts for environmental and hygiene technology can be found. "They explain to us exactly what we have to bear in mind when planning and installing a ventilation or air conditioning system so that it can be economically serviced and kept in sound hygienic condition." Holger Pitzer, responsible for air hygiene at HSG, confirms this: "If you cut corners in the construction phase, you pay the price later. And if a building is designed in a way that the ventilation ducts are difficult to access, how can proper maintenance work be carried out?"

There are lots of ways, some of them quite simple, to ensure healthy indoor air, says Pitzer, it's just a question of applying them. In Megaron in Mannheim, a modern office block with some 800 workplaces, built and now managed by Bilfinger Berger, the construction and facility management specialists jointly opted for nine smaller ventilation systems spread out over the roof instead of the installation of a single central unit. Powerful 15-kilowatt motors turn the ventilators, pumping 15,000 cubic meters of fresh air into the building hourly. "A central system would have had much longer air ducts. Now we have short ducts, which are much easier to inspect and clean," explains Michael Sauerwein. He points out that this greatly reduces the risk of microbial layers forming at the seals. "It also helps that the units are on the roof," adds Holger Pitzer. "They are easily accessible for the technician and the incoming air is less polluted by exhaust emissions." What's more, the short ducts also reduce electricity costs since the ventilators have a lower resistance level to overcome.

The smog stays outside

Twice a year, Megaron building technician Manfred Hotz changes the filters. He replaces the fleece inserts, tightens the screws and cleans the frames. It takes several weeks for him to service all nine units. Holger Pitzer, or one of his inspectors, regularly checks the state of the facilities in all of Bilfinger Berger's buildings — and in particular the number of airborne germs. "The inside air should not be more contaminated than the outside air," says Pitzer. And, generally speaking, the filtered air inside the buildings is indeed significantly cleaner than the surrounding air.
Three women are standing outside Megaron's main entrance, smoking their cigarettes, breathing the smoke deep into their lungs. After their cigarette break, they go back into the fresh air.

Ointments, leeches and saws

At medieval festivals, dentist Dr. Andreas Klug takes his audience back in time to around 1500. Playing the role of a physician, he makes spectators' skin crawl by demonstrating the primitive medical practices of the period.

[TEXT: MATHIAS RITTGEROTT, PHOTOS: CHRISTOPH PÜSCHNER, THEO BARTH]

When the swashbuckling gets going at the medieval festival in Bretten, the doctor has his work cut out.

__ The soldier roars with pain. His armor had protected his chest, but a sword swipe has left a gaping wound in his lower arm: it is infected and there is a risk of blood poisoning. "We'll have to amputate right away," says the doctor after a brief glance. The injured man lashes about wildly: two henchmen hold him down as Andreas Klug applies a fine-toothed saw. The soldier emits a blood-curdling scream, the doctor proceeds to saw off his arm and a minute later he presents the amputated limb to the audience.

Andreas Klug then sits down at a wooden table where there is a row of jars with mysterious contents. "This is a brain, these are eyes, and these are testicles," he lectures. "We can use these ingredients to make powerful essences or acquire the qualities of other people such as intelligence, keen vision — or even sexual potency." He fishes a black worm out of one of the jars using a wooden spoon, lets it crawl over his hand and holds it out to his repulsed audience. "A blood sucker," explains Klug: "A little helper for drawing the patient's blood." In reality of course, the blood is only theatrical and the amputated arms and legs are made of plastic.

Andreas Klug's medieval medical show can be seen at the annual "Peter-und-Paul-Fest" in Bretten, Baden, a festival which transports visitors back to the year 1504.

The ancient art of healing falls into oblivion

"In those days, knowledge of medicine in Germany was just above zero," explains Klug. The healing skills of the ancient Greeks had fallen into oblivion in the Western world. It was the Arabs who absorbed the ancient wisdom, translating Greek writings into Arabic and spreading what they learned. The texts eventually found their way to Moorish Spain, and the expertise finally returned to Western Europe via the University of Toledo. "The doctors in Spain and Northern Italy held the most knowledge," says Klug.

This is why Klug's historical doctor has a fictitious career which includes a period of study in Padua.

The healing professions were subject to a rigid hierarchy in the Middle Ages. The 'medicus' was an academically qualified doctor, though there were actually very few of these in existence. The most common practitioners were the so-called barber-surgeons: they did not usually have a university education. Nonetheless their status was far above that of the quack doctor. The latter's knowledge of bones derived from the fact that his job was to break them: he was the executioner. He would sell the body fat from the corpses of the dead as an ointment.

Autopsies forbidden

Medieval healers could only gather information on the human anatomy indirectly. Postmortem examinations were not allowed until the 17th century, and even then

were only performed in exceptional cases — for example on executed criminals. "Physicians based their treatments on the doctrine of the four body fluids," explains Klug. According to this, a healthy human body had a balance of blood, mucous, yellow gall and black gall. If this harmony was disrupted, sickness set in. "Avicenna's Canon of Medicine gives instructions as to how to proceed in case of an imbalance," says Klug. "Drawing blood was particularly popular." One of the most important methods for diagnosing ailments was urine inspection — as re-enacted by Klug at the medieval festival. A girl brings him a jar containing an amber fluid. "Father is sick. What does the urine tell us?" she asks. Klug lifts the jar to the sunlight and inspects the color. He then dips his finger into the liquid and tastes it. "Honey-sweet," is his verdict. The finger test allows the physician to pronounce diagnoses such as "diabetes mellitus" — the word 'mellitus' is Latin for honey-sweet. Of course, some of the doctor's treatments fail to have the desired healing effect. In such cases, he simply refers to the medieval fee scales for medical treatment. "If the patient dies, the treatment is only half-price."

Spectators shudder in disgust, but medieval physician Andreas Klug doesn't bat an eye during the urine test.

PHOTO ON THE RIGHT: STEFAN KIEFER/DDP

Bishop of Passau Wilhelm Schraml and project manager Oliver Knörr.

PHOTO: BILFINGER BERGER

Altar boys struggle to get a look at the Pope.

The Papal stage in Altötting's main square.

Pope's visit in good hands

As the people of Altötting say: "There is a path to Altötting from every front door" — and they were certainly right when 60,000 came to see Pope Benedict. Bilfinger Berger coordinated the events in Altötting and Marktl am Inn.

Altötting is the most important Marian pilgrimage site in Germany. Over a million pilgrims from all over the world come to the little Bavarian town (population 13,000) to pray to the "Black Madonna" in the Chapel of Mercy. The statue is said to have brought two boys back to life who were thought to have died in an accident, and since that time people have constantly flocked to Altötting to solicit the Madonna's help.

Never, however, was the flood of pilgrims as great as in September 2006 for the visit of Pope Benedict XVI — who had chosen the motto "He who believes is never alone" for his trip. Some 60,000 faithful lined the streets and followed the service held by the Pope on the town's Baroque square using a specially constructed raised altar.

Under contract to the Diocese of Passau, Bilfinger Berger not only took care of the overall coordination of the mass events in Altötting and Marktl am Inn, but was also responsible for altar and stand construction, sound and video technology, the power supply and even the myriad of signs to help people find their way. A year earlier the company had provided similar services for the Catholic Church at the closing ceremonies of the XX World Youth Day at Marienfeld near Cologne.

In Cologne, entire fields were taken over to accommodate 1.1 million believers, with path networks, an electrical power and water supply, bathroom facilities and even the temporary installation of an altar hill. By contrast, the Altötting celebrations were held in the town center. To prepare for the invasion of pilgrims, the team headed by Oliver Knörr, the Bilfinger Berger project manager, went to Altötting months in advance to plan lighting, sound systems, LED screens, back-up power supply and all those details which are only noticed when they are missing.

Bilfinger Berger has handled large-scale cultural and sporting events for years. The company manages the Alte Oper Frankfurt and the Kölnarena and the Commerzbank Arena in Frankfurt. The World Youth Day in Cologne was the first time Bilfinger Berger had offered the complete range of services for a large-scale event as a single source provider, from design and construction of temporary infrastructure through to customized event technology. *(si)*

Satisfaction all around: Dr. Josef Sonnleitner, Financial Director of the Diocese of Passau, with Bilfinger Berger staff.

PHOTO ON THE LEFT AND ABOVE: RALPH LARMANN

PPP gaining ground in Germany

District administration office opened in Unna — 25-year contract

PHOTO: BILFINGER BERGER

Plenty of hoopla: opening of the district administration office in Unna.

With German Finance Minister Peer Steinbrück on hand, the district administration office in Unna was opened on August 25, 2006. The administrative building, rehabilitated and expanded by Bilfinger Berger on the basis of a public-private partnership (PPP) model, will be operated by the Group for a 25-year period. The project also involves the maintenance and operation of two other public buildings in Unna. The total investment volume is € 24 million.

Germany has seen a dramatic rise in interest in PPP projects for public sector buildings. There are currently more than 30 projects with a total investment of € 800 million in the realization phase and more than 100 projects in the planning pipeline. Efficiency gains for the public sector over the life cycle of a building can be as high as 20 percent as compared to traditional approaches. The German government has repeatedly stated that it wants 15 percent of public sector investments on the national, regional and local level to be handled through PPP arrangements.

Bilfinger Berger has extensive experience with privately financed concession projects for public sector buildings. In the UK and Australia in particular, the company operates and realizes numerous projects in the education and health care sectors, as well as in the prison system.

www.bilfingerberger-bot.de

New building contracts in Germany and Poland

Shopping malls and assembly plant

Having recently won the contract for one of Germany's biggest urban shopping malls — to be built in Essen — Bilfinger Berger has now succeeded in adding a string of notable building contracts to the order books.

In Passau, the company is carrying out turn-key construction of the "Stadt-Galerie" shopping mall. The contract volume for this development project from ECE Project Management totals € 60 million. The downtown mall will offer 21,000 square meters of retailing space on three levels and is scheduled to open its doors in the fall of 2008.

In Duisburg, Bilfinger Berger is building the "Forum," another remarkable urban shopping mall. The client is Multi Development Germany and the project volume totals € 85 million. The opening is slated for autumn of 2008. The building will be home to 120 stores spread over 60,000 square meters, adding an attractive retailing highlight to the city center. In close proximity to this project, Bilfinger Berger is currently building the "CityPalais" for LEG, the regional development company in North Rhine-Westphalia. This facility will feature a concert hall, as well as office and retail space.

Bilfinger Berger is following its longstanding client MAN on its ventures abroad. In the Polish town of Niepolomice, Bilfinger Berger is building a turnkey assembly plant for commercial vehicles. The facility comprises four production halls with a total floor space of 65,000 square meters plus outbuildings. The project is valued at € 50 million.

PHOTO: ABIGROUP

Motorways are in great demand. Bilfinger Berger was a key player in building the M7 in Sydney.

Expanding transportation infrastructure in Brisbane

Contract volume exceeding € 1 billion

Bilfinger Berger is profiting from the lively demand for major infrastructure projects in Australia. In Brisbane, the Group has won two major new contracts with a total volume in excess of € 1 billion.

Bilfinger Berger is playing a major role in the design, expansion and maintenance of the Gateway Motorway. The project also involves an ambitious bridge construction, the restoration of the existing bridge and the upgrading of a 20-kilometer long section of motorway. The total project volume exceeds € 800 million, with Bilfinger Berger's share amounting to half of the total.

Furthermore, a consortium in which the Group is involved has taken on the realization of a new, 5.2-kilometer long motorway connection between the suburbs to the north and those to the south of Brisbane. At the heart of this project, with a volume of over €1.2 billion, is a tunnel with two tubes. Bilfinger Berger's share of the construction volume is valued at more than € 600 million.

Rheinhold & Mahla changes its name

The former Rheinhold & Mahla AG has changed its name to Bilfinger Berger Industrial Services AG. The company joined the Multi Service Group in 2002. Bilfinger Berger Industrial Services offers clients from the chemical, petrochemical, energy and oil and gas industries comprehensive services for the repair, maintenance and modernization of production facilities. Bilfinger Berger Industrial Services AG is profiting from the worldwide trend toward outsourcing complex technical services to specialized companies.

Maintenance of offshore platforms

Takeover of UK market leader Salamis

Bilfinger Berger Industrial Services AG, formerly Rheinhold & Mahla AG, acquired Aberdeen-based Salamis Group Ltd. in July 2006.

Salamis has a market share in the UK of just over 40 percent and serves major oil and gas companies. The company generated revenues in excess of €160 million in 2005. Almost all of Salamis' business is conducted on the basis of longstanding framework agreements. Its service spectrum incorporates scaffolding, fire and corrosion protection, insulation, as well as cleaning and inspection.

With its takeover of Salamis, Bilfinger Berger is further expanding its position in the maintenance and repair of oil and gas platforms in the North Sea. Bilfinger Berger Industrial Services is one of the leading service companies in this segment, especially in the Norwegian offshore business. In view of the oil price development and rising energy consumption levels, Bilfinger Berger expects demand to remain high. This will be boosted by higher safety requirements and increasing maintenance needs.

PHOTO: SALAMIS

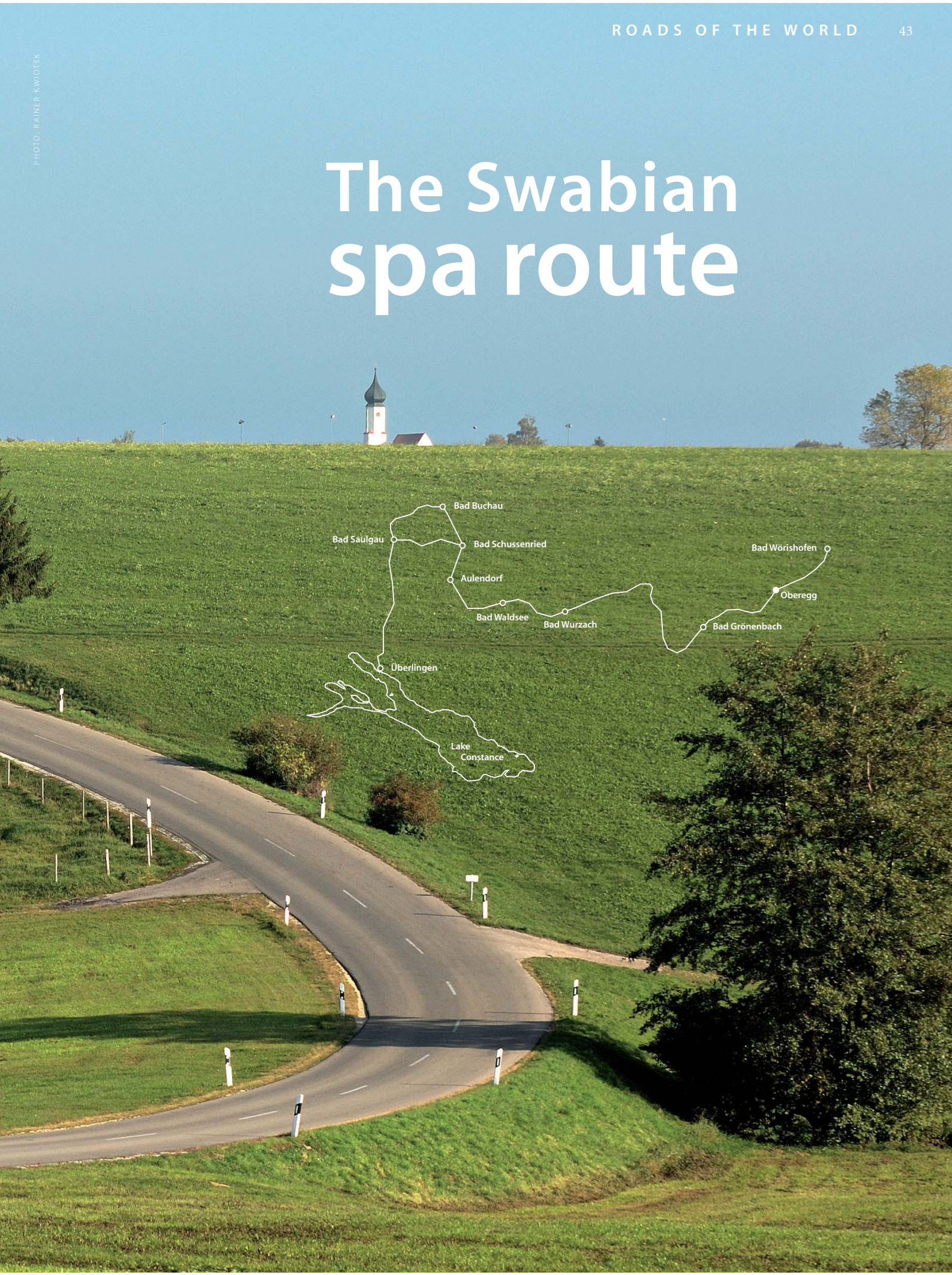
UK market leader Salamis maintains offshore platforms.

Therapeutic beauty along the spa route

The Swabian spa route (Schwäbische Bäderstrasse) has a wave-shaped symbol of water and an onion dome as its logo, and for good reason: the country road at the foot of the Alps is awash with thermal spas and churches. There are nine health resorts and therapeutic baths dotted along the road like pearls on a string. They offer thermal baths, mudpacks and other treatments. The spa route, a scenic 180-kilometer long stretch of road through Upper Swabia and the northern Allgäu region, is a remarkable therapeutic and cultural tour. At the eastern end of the route, the "Patrona Bavariae" church looks over the horizon like a raised index finger. The church is situated in Oberegg, a village like many others in the region: houses surrounded by lush meadows, crouching under the protection of the house of God. This is the birthplace of Johann Nepomuk Holzhey, one of the most important South German Baroque organ makers. In the 18th century, he built forty instruments for the monasteries and churches at the foothills of the Alps. Holzhey's name is all but forgotten, but the country is still benefiting from another man of faith to this day: Sebastian Kneipp, the "water doctor." The development of his therapies in Wörishofen in the mid-19th century saw the start of health tourism along the Swabian spa route and led to the establishment of one of the world's most famous natural healing treatments. Kneipp believed not only in the healing power of water, but also in a balanced diet and the power of herbs; the herb-filled meadows of the Allgäu region were his fragrant natural apothecary. And the priest was no friend of excess: "There is order in moderation; every bit too much and every bit too little causes sickness in the place of health." And health seekers traveling along the spa route are well advised to leave their vehicles parked for a while and take in some of the route's sights by foot. How did Kneipp put it? "Everything would be better if we would only walk a bit more." *(bh)*

PHOTO: RAINER KWIOTEK

The Swabian spa route



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