

WHITE PAPER 2019

THE SCIENCE BEHIND **THE SENSORY SPACE**

→ A NEW PERSPECTIVE

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As research studies demonstrate, we are now spending 90% of our lives indoors. So, it stands to reason that the spaces we surround ourselves with will have a dramatic impact on our physical and emotional wellbeing. Add to that our “always on” busy, bustling, stressed out lives, and we start to recognise the need for these spaces to do more than just shelter us. Increasingly, good design is less about how spaces look and more about how they make us feel - seeking to improve both mental and physical wellbeing through a multi-sensory approach.

We are now seeing this health and wellbeing aspect being met across different building typologies and spaces that are so important in our daily lives. In fact, according to the Global Wellness Institute, the development of wellness real estate is growing at a rate of 6.4% per year – and rightly so. With stress related illness rising, and increased urbanisation and technology infringing on our lives, how do we get back to feeling our best?

Key to the delivery of restorative and recuperative spaces is designing for sensory wellbeing and making the most of the spaces that can help to deliver this. Contact with these spaces can happen in numerous ways, but for many, the deep multisensory environment that can be created in a bathroom is a powerful opportunity to explore.

Whilst design trends may come and go, a stronger connection to nature is something we have had throughout human evolution and an idea that we are now returning to go through the use of Biophilic Design principles. The use of real forms of nature, materials that mimic it and a recognition that we all need spaces to relax in, are now being seen as fundamental to the delivery of successful spaces.

This white paper is an opportunity to explore how the once humble bathroom is increasingly becoming the key to delivering richer multisensory experiences – elemental experiences that will benefit you no matter where you are – be that in the home, a hotel, or the workplace.

So, take a breath, find a quiet moment, and read on.



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RESHAPING BATHROOM SPACES



The changing way in which people are living their lives is enabling designers to rethink interior spaces, and nowhere is this more evident than in the bathroom.

In the home, in the workplace and in hospitality, luxury washrooms and bathrooms offer a sensory retreat from increasingly busy lives. More than that, with a greater societal focus on health and wellbeing, they play a vital role in helping to improve everyday lives. Bathrooms have become multi-functional spaces which embrace technology and clever design to create considered comfort for users. The onus now is on architects and designers to push the envelope in search of those benefits.

This white paper from Geberit introduces some of the drivers which are shaping modern washroom and bathroom design across three key sectors; hotels, high-end residential dwellings and offices; before presenting inspirational trends and solutions available to those tasked with designing interior spaces.

In order to meet these challenges, we must first understand the impact of design on our sensory system and specifically how the bathroom can support sensory integration. We call this 'The Science Behind the Sensory Space'.

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From biophilic design and visionary sustainability, to the virtues of value and longevity, today's bathroom spaces demand more than practicality. They must enhance and improve lives.

A SENSORY SPACE

Finely-tuned and always on alert, our senses register everything around us and although this activity is often subconscious, it nevertheless draws deep on our energy reserves. Almost three quarters of us (73%)¹ struggle to find time to relax and as our lives get busier, the need to switch-off becomes greater.

With a greater focus on health and wellbeing, consumers are increasingly aware of the benefits of self-care – giving themselves every opportunity to relax, step away from the 'always-on' society in which we live and restore the natural balance of their overworked senses. In fact, 72% of millennial women prioritised self-care as a new year's resolution in 2018². Whether at home, at work or at leisure, a well-considered bathroom provides the opportunity to do this, if even for a short space of time.



→ Auditory

Whether it is to deliver an undisturbed night's sleep in a hotel room or to minimise noise from adjoining washrooms in an office environment, careful consideration of acoustics both in the room and behind the wall can help to create a quieter, more relaxing environment for all.



→ Visual

It is well understood that light can influence our moods, which is why bathroom and washroom lighting is so critical to help calm the senses. Think innovative space-saving bathroom furniture too, which offers the opportunity to declutter and instil a sense of calm.



→ Olfactory

The most common method of handling unpleasant odours in the bathroom has often been to mask them using chemical sprays or to remove them via loud and usually inefficient odour extractors. With continued development of technology and a greater focus on sustainability, these solutions are now largely redundant in luxury bathroom projects, replaced by innovative, highly efficient odour extraction technology.



→ Kinaesthetic

A deep understanding of the importance of the sense of touch allows bathroom designers and manufacturers to explore and adapt the ways in which we interact with our spaces and the technology within them. Bringing together design and function, this covers everything from natural materials for bathroom furniture and ceramics, to luxury flush plates and heated toilet seats.

This increasingly popular architectural approach - demonstrated superbly by the Bosco Verticale ('Vertical Forest') towers in Milan - brings a range of health and wellbeing benefits, particularly in heavily urbanised areas.

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BOSCO VERTICALE,
MILAN, ITALY

BIOPHILIC DESIGN

Derived from 'biophilia', the Greek word describing the love of nature, biophilic design pays respect to our senses and our genetic connection to the natural world.

From living walls in our workspaces and pot plants, to creating spaces that revel in the natural landscape or interact with beautifully designed gardens, biophilic design utilises natural principles to create a human-centred approach.

Typically, the main areas of focus within bathroom design include materials, textures, colours and patterns. However, this approach now extends further than surfaces and design choices. Incorporating air quality and ventilation, lighting systems designed around our sensory needs and acoustic comfort, it offers an all-compassing framework to help create a sensory space in the bathroom.

HOTELS

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GRAN HOTEL MIRAMAR, MALAGA, SPAIN

Increasingly seen as part of the hotel experience, prestigious hotel bathrooms offer a place of sanctuary where guests can unwind and relax away from the stresses of everyday life.

They are often perceived as the epitome of calming bathroom spaces; an extension of living space, stylish and opulent, taking inspiration from the world's finest spas. And as the trend for selling 'experiences' and creating an escapism for guests continues, so too does the value of creating a unique, positive guest experience to help build stronger memories, encourage positive reviews and ensure customers keep coming back. Consider this; 96% of people consider reviews from other guests important when booking a hotel.³

Remember there is more to hotel bathroom design than those in guest bedrooms – the lobby, bar and restaurant will all need washrooms where it is important to make the same sensory considerations in order to create a seamless experience throughout the hotel space.

THE PINNACLE OF BATHROOM LUXURY



A WELLNESS RETREAT →

The desire for, and understanding of, wellness is undeniably on the up, as consumers across all generations switch on to the need for self-care to support physical and mental health. Taking inspiration from the world's most luxurious health spas, hotel designers are using high-end materials and state-of-the-art technology to create sensory spaces in which people can restore the natural balance of their senses and achieve mindfulness. With research showing up to 85% of people in the UK experience stress regularly, this is more important than ever.⁴



INSTA-READY SPACES

The Instagram boom continues and with 500 million people using the social media platform every day⁵, the rise of the selfie has changed the washroom experience in bars, restaurants and hotel lobbies forever. No longer a nice-to-have but more a necessity in hospitality, 'instagrammable' washrooms offer clients a genuine brand differentiator - a private and intimate place in which secrets are shared and photographs are staged. Not forgetting guest bedrooms too; self-care rituals have reshaped the way in which we use the bathroom and beauty trends such as dry brushing and sheet masks, for example, are helping to turn the bathroom space into an area in which to spend time nurturing body and mind.



MULTI-FUNCTIONAL ROOMS

Open-plan bedroom-bathroom layouts are no longer restricted to the edgiest of hotels and this trend continues to gain traction, whether that means a lack of partition wall between the bedroom and bathroom spaces, glass walls or just a shower or bath in the bedroom. It is fuelled by the notion that the bathroom should comprise a key part of the overall experience when staying in a luxury hotel, morphing spaces within the guest rooms create the ultimate setting for rest and recuperation.



THE CHALLENGES

This shift in positioning the bathroom as part of the overall hotel experience places a far greater emphasis on the way the space is designed. As we have heard, the bathroom is no longer an add-on to the guest room, instead it is morphing into the bedroom as an integral part of the guest's stay. This brings its own individual challenges, particularly around privacy and acoustics.

Other challenges to creating a viable, stylish and fit-for-purpose sensory space include:

- Minimising noise in the room and behind the wall for guests in adjacent rooms
- Managing client expectations in spite of inevitable space restrictions
- Delivering luxury and insta-ready surroundings without compromising on sustainability or practicality
- Specifying the right products and finishes to help minimise operational costs such as cleaning and maintenance
- Providing considered lighting solutions which don't compromise on the sensory experience of the space
- Supporting the provision of a strong guest experience throughout all areas of the hotel to help encourage customer retention and recommendation



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THE SILO HOTEL, CAPE TOWN,
SOUTH AFRICA

THE SOLUTIONS

Fortunately, the solutions available to designers to help meet these challenges are plentiful.



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For example, noise does not need to be a concern for clients thanks to the continued development of acoustic solutions both in the room and behind the wall. From acoustically optimised pipework with noise reducing properties, to decoupled pre-walls for added noise insulation, manufacturers are constantly innovating sound-proofing solutions that help to mitigate the age-old issue of noise from flushing toilets that is prevalent in the hotel sector.



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HOTEL MAMA THRESL, LEOGANG, AUSTRIA

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The demand for kinaesthetic appeal and an 'instagrammable' finish can both be satisfied using a vast range of materials and textures, combined with design features such as sleek silhouettes, organic shapes and geometric contours. Products of interest add depth to designs too, such as modern flush plates; constructed with durability and functionality in mind, but that doesn't mean they can't be beautiful in their own right.

At the same time, product designs with clean lines, minimalistic shapes and easy-to-clean textures help to maintain hygiene standards and improve ease of cleaning to keep operational and maintenance costs to a minimum.



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HOTEL IL SERENO, TORNO, ITALY

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Finally, innovative lighting solutions offer the perfect answer for when a bathroom or washroom space must double up as a photography backdrop. The aim should always be to create a calming, considerate experience, mimicking natural lighting wherever possible and delivering an illusion of space and depth through the careful selection of materials and patterning.

In guest room bathrooms, where it is important to maintain the calm and sensory balance of the space, many designers will turn to orientation lighting. Available in a variety of different hues, it can create a soft, directional glow that eliminates the need to switch on additional lighting during self-care rituals or in the middle of the night.

HIGH-END RESIDENTIAL

Luxurious master en-suites, opulent family bathrooms, sleek guest bathrooms and creative cloakroom spaces. Throughout the home, designers are tasked with getting the most from a variety of bathrooms, meeting changing demands from developers and homebuyers.

Bringing the luxurious feel of a hotel bathroom into a stylish, family home is just one challenge. Our relationship with the home – and with the bathroom in particular – is changing. Over four million people now regularly work from home in the UK (13.7 per cent of the workforce)⁶ and the figure is growing every year. Designers must think more creatively in order to deliver the multi-functional rooms needed to live modern lives at home.



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THE CROW'S NEST, LYME REGIS, UK

THE EMOTION OF HOME →

From 'cleanfluencers' like Mrs Hinch to the global phenomenon of Marie Kondo, home care has become an extension of self-care. The 'joy of calm' is shaping bathroom design as homeowners seek 'mindful organisation' in a bid to cut anxiety and rid their bathroom of clutter – in much the same way that they are trying to rid their minds of sensory overload.



CONSIDERED COMFORT

The wellbeing trend hits home again as society's greater focus on self-care is one of the contributing factors to the way in which the home is morphing into a multifunctional system for living. App-controlled devices and hi-tech systems offer greater flexibility of activities and this fluidity throughout spaces, together with the prominence of biophilic design, is helping to position the bathroom as a place of luxury and tranquillity without exclusion from the home's entertainment or social activities.

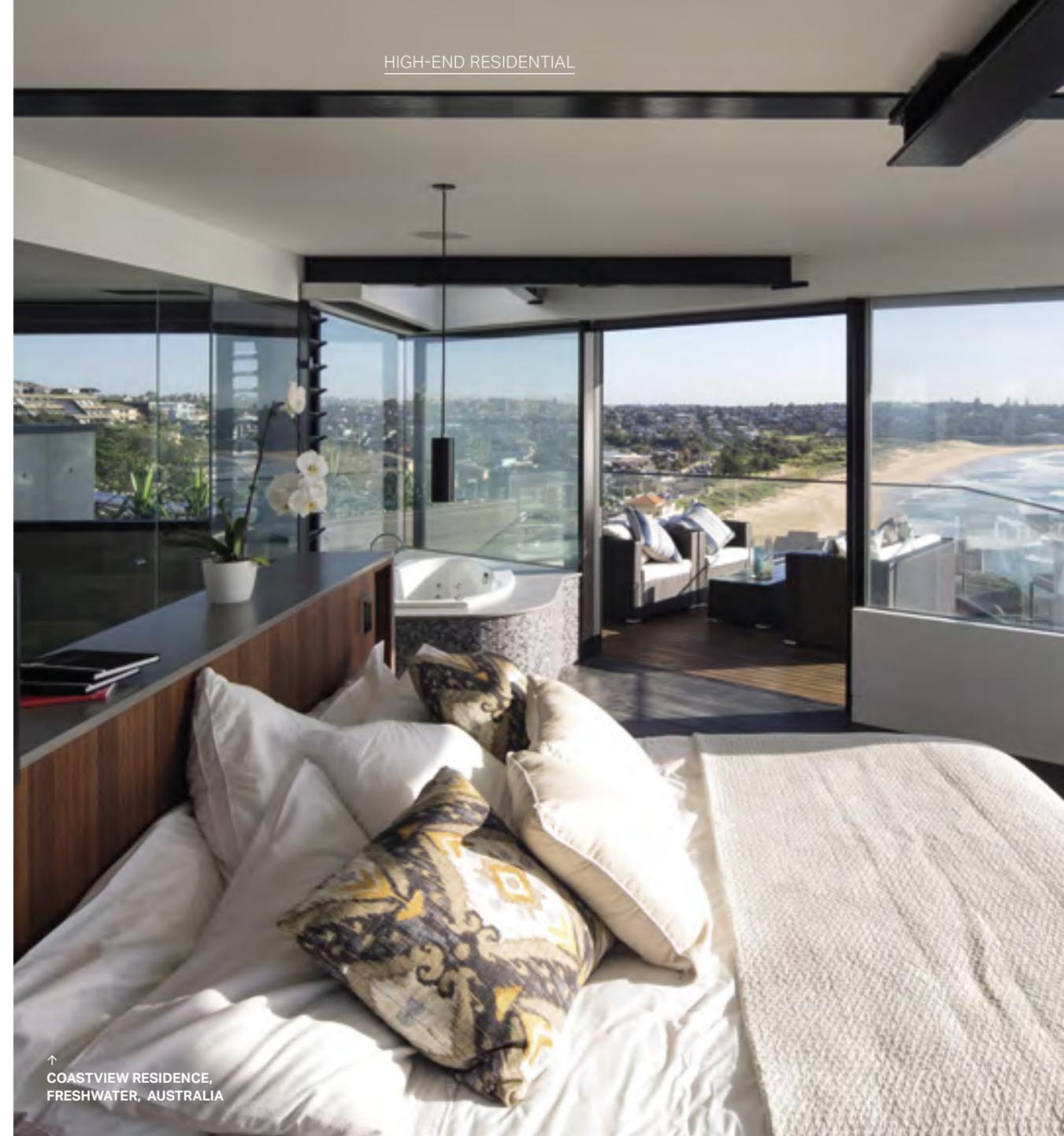
MULTI-TASKING HOMES

Self-care routines are not the only way in which the relationship with our homes is changing. Today's generation of homeowners spend three times more money beautifying their homes than their parents' generation did 30 years ago.⁷ The shift towards home-working means people are spending longer at home and they need fluid spaces that enable them to do this in comfort – from home office space to functional yet stylish bathrooms.

THE CHALLENGES



↑ FRIENDS, MUNICH, GERMANY



↑ COASTVIEW RESIDENCE,
FRESHWATER, AUSTRALIA

One of the biggest challenges in designing residential bathrooms comes from the increase in global travel. The rise of Airbnb and trend for choosing 'experiences' over material goods (74% of us now prioritise experiences over products⁹) means consumers have greater access to room designs in hotels and homestays from across the world. This has fuelled demand for luxury, international design, using the finest materials and opulent finishes. Achieving this within the client budget, of course, is often where the biggest challenge lies.

Other typical issues faced by those working in the high-end residential sector include:

- Meeting growing demand for sustainable products and systems - homeowners are looking to save money and the environment
- Designing sensory spaces that offer a retreat from increasingly busy lives and accommodate the trend for self-care
- Supporting homeowners in their bid to find the joy of calm through organisation and decluttering
- Introducing innovative technology which has become such a vital part of everyday life without compromising the wellness objectives of the bathroom

THE SOLUTIONS

Of course, manufacturers have responded to these challenges, giving architects and designers the solutions they need to meet demand, every time.

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For example, achieving affordable style and international-standard spa-like opulence is made easier thanks to a growing number of partnerships between leading bathroom brands and global designers, making even the most luxurious of stylish living more achievable.



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In addition, the decluttering trend has given rise to enhanced storage solutions. Modern bathroom furniture with concealed storage capabilities offer space saving benefits and help to create calming, relaxing spaces free of unnecessary clutter. Reducing the visual stimulation of the bathroom or en-suite is also made possible through clever lighting solutions such as orientation lighting, which helps preserve the sanctuary of sleep by eliminating the need to switch on additional lighting.



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Finally, achieving the sustainability credentials needed to meet efficiency targets in new homes – and pull-through demand from an increasingly eco-conscious society – is made possible through water-saving and energy-saving solutions from low water usage flushes for WC's to water recycling shower heads to eco-friendly toilet paper. New technology such as energy efficient odour extraction systems can also reduce the need for toxic sprays and chemicals which have traditionally been used to mask bathroom odours.

OFFICES

↑
ON RUNNING, ZURICH, SWITZERLAND

Modern office washrooms are much more than a functional space. Through intelligent design, they can also serve as an employee engagement tool, a continuation of brand perception, a corporate sustainability asset and a key part of any inclusion strategy.

Research by American office design company Steelcase shows a direct correlation between workplace satisfaction and employee engagement. Employers are increasingly looking to provide inspiring office environments and this should include the washroom facilities. In fact, with growing awareness of employee wellbeing and increasingly stringent building efficiency targets, washroom design offers a huge opportunity to add value to any office development.

SUSTAINABLE BUILDINGS

With points-based systems such as BREEAM and LEED forcing building designers to focus on efficiency throughout new build and refurbishment projects, the washroom is one area in which improvements can be made. Innovations such as modern odour extraction systems and water efficiency solutions are proving popular in office projects, supporting clients in meeting their sustainability targets throughout the construction and operation phases of the building.

**← MINIMISING OPEX**

Another important requirement for office projects is to minimise the ongoing cost of running the washrooms within a building. Hygienic, easy-to-clean surfaces can save time and money on cleaning, whilst water-saving solutions and energy efficient odour extraction technology can contribute to reducing overall building running costs. It is also important to consider the longevity of washroom collections to avoid any unnecessary repair or replacement costs.

ACCESSIBLE WASHROOMS →

Inclusion is not so much a trend but more a necessary consideration for building designers, representative of social changes and evolving workplace legislation. Put simply, research from 1,700 different companies across eight countries shows that diverse and inclusive businesses produce more revenue⁹. As more businesses integrate inclusion, gender and disability policies into their overall business strategy, there has been a significant shift in the provision of bathroom and washroom facilities towards gender-neutral and accessible (not disabled) facilities.



↑
PORT HOUSE,
ANTWERP, BELGIUM

← EMPLOYEE WELLBEING

From the user's point of view, employees want to operate in inspiring environments that make them feel valued, and this should not end at the washroom door. More than half (57.3%) of working days lost to ill health in the UK are due to workplace stress or anxiety¹⁰. Evidence has shown that a high-quality working environment – with consideration of biodynamic lighting, biophilia, clean air, acoustics and also facilities – can improve productivity, reduce absenteeism and improve overall wellbeing.

↑
SPORT CAMPUS ZUIDERPARK,
THE HAGUE, NETHERLANDS

THE CHALLENGES



One of the most pertinent issues currently in office construction and refurbishment is accessibility, and washrooms sit right at the heart of it.

Growing awareness of LGBT issues and gender identity means designers face the challenge of providing inclusive, accessible facilities for increasingly diverse workforces, without compromising on style, functionality or privacy. Gender-neutral toilets are no longer reserved for the most forward-thinking office projects, but instead they are a common requirement for clients of all sizes.

Other key challenges when planning washroom space in the office sector include:

- Using innovative technologies to contribute to overall building sustainability targets
- Ensuring the highest levels of hygiene from washroom facilities, to reduce cleaning costs and maintain a good impression for visitors and clients
- Reducing reliance on chemicals to mask odours within the washroom
- Ensuring longevity of materials, surfaces and technologies to optimise initial investment
- Reducing noise from the toilet and washroom, particularly when facilities are adjacent to offices
- Maintaining brand perceptions for a consistent experience throughout the building
- Supporting the development of a high-quality working environment to improve productivity and overall wellbeing
- Providing accessible space for employees with additional needs, such as a privacy area for taking medicine
- Taking into account cultural and religious requirements, including the provision of space for prayer rooms within overall project designs

THE SOLUTIONS

This shift has given rise to the 'super loo'; vast, lavish spaces with gender-neutral toilets and shared washroom facilities which give greater flexibility over design and the potential to make budgets stretch further. Shared facilities are becoming increasingly popular within schools and on that basis there is a safe assumption that the next generation of workers will be both familiar and comfortable with similar facilities once they enter the workplace.



Elsewhere, insight from the Institute of Practitioners in Advertising suggests that Generation Z - those born between the mid-1990s and early 2000s who are beginning their own careers and exercising their own attitudes and beliefs in the workplace—are less concerned about trends but trust technology to make their choices and their lives easier. This generation has never had to live without the likes of smart phones and sat-navs; they understand the time-saving and operational benefits of technology and they have no reason to question life-enhancing gadgets like their parents might.



← Combined with the need for efficiency in new and refurbishment office projects, this gives huge potential to specify innovative technology solutions in the washroom, from energy efficient odour extraction systems, to pioneering no-touch flush systems.

The need to minimise OPEX costs can be achieved through the use of quality, hygienic materials for surfaces and washroom facilities, offering both practical and easy cleaning, as well as value and longevity to optimise initial investment and prevent early repair or replacement costs.

BATHROOM DESIGN IS EVOLVING AT A RAPID PACE, DRIVEN BY SOCIAL CHANGE, INNOVATION OF SOLUTIONS AND A GREATER UNDERSTANDING OF SENSORY REQUIREMENTS. ULTIMATELY, THE BATHROOM OR WASHROOM IS A PLACE OF FUNCTION, WHERE USABILITY COMES FIRST. BUT AS THE SECONDARY USES OF THIS SPACE EVOLVE, TODAY'S RESIDENTS, CONSUMERS AND WORKFORCES DEMAND MORE THAN USABILITY.

In a fast-paced world, the bathroom or washroom offers a place of tranquility, where careful design can enhance wellbeing and improve our lives – whether at home, at work or at leisure. In some cases, it is a place for self-care, a place to socialise, even a photography studio. In others, it is a place to truly escape from the stresses of everyday life and allow our senses to restore their natural balance.

The task for designers of course is to meet these demands within increasingly stringent building regulations and efficiency targets. This will only be achieved by gaining a true understanding of sensory requirements in order to reshape spaces, whilst adopting the technology and exploring the materials that are helping to meet challenges in design.



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HOTEL IL SERENO, TORNO, ITALY

THE GEBERIT PRODUCT RANGE

Engineered to meet customers' demands

AUDITORY



GEBERIT SILENT-PP
Acoustic drainage



GEBERIT SILENT-DB20
Acoustic drainage



GEBERIT DUOFIX
Pre-wall installation frames



GEBERIT AQUACLEAN
Mera quiet flush & automatic lid



GEBERIT BATHROOM COLLECTION
Soft close seats

VISUAL



GEBERIT MONOLITH PLUS
Ambient light, light-touch flush



GEBERIT AQUACLEAN
Sela orientation lighting



GEBERIT BATHROOM COLLECTION
Mirrors with lighting



GEBERIT DUOFRESH
Integrated orientation lighting

KINESTHETIC



GEBERIT SETAPLANO
Warm and smooth - touch shower surface



INFRA-RED FLUSH PLATES
Touchless



INFRA-RED TAPS
Touchless



KeraTect®

KERATECT
Smooth to touch



GEBERIT ACANTO
Ergonomic design



GEBERIT AQUACLEAN
Heated and automatic opening seat

OLFACTORY



GEBERIT DUOFRESH
Odour extraction



GEBERIT AQUACLEAN
Odour extraction



GEBERIT MONOLITH
Odour extraction



↑ HOTEL IL SERENO, TORNO, ITALY

ABOUT GEBERIT

Set to make its mark in the UK, the Geberit Group is the European market leader for sanitary products. A respected Swiss brand, it has a well-established reputation for delivering premium quality products, inspiration and innovation across every aspect of its business.

For years Geberit has maintained a very strong presence within Europe, offering unique added-value within both the sanitary technology and the bathroom ceramics sectors.

Sustainability has long been part of the Geberit identity, for example, in its pioneering work in water-saving products, new logistics solutions, energy-efficient production plants and its delivery of responsible training within the industry.



TO FIND OUT MORE ABOUT GEBERIT'S SCIENCE BEHIND THE SENSORY SPACE AND HOW, THROUGH BIOPHILIC DESIGN, INSPIRED THINKING AND VISIONARY SUSTAINABILITY IT IS RESHAPING THE SPACES AROUND US, GO TO WWW.GEBERIT.CO.UK/SCIENCE

SOURCES

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CHIMNEY HOUSE, LOGATEC, SLOVENIA

