

Trend Report

Q2 2024

TAKING AIM AT THE OFFICE

Common criticisms and how to address them



Taking aim at the office

Welcome to your Q2 2024 Trend Report from WORKTECH Academy, which sets out common criticisms of the workplace – and ways to address them

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Our second Trend Report of 2024 arrives on your desk at a time when the momentum is swinging back towards in-office working. More employers are taking a tougher line on showing up in the workplace; more younger workers are opting to build their professional networks face-to-face; road and rail commuting routes are busier than before.

But that doesn't mean the issues that have created such difficulties in orchestrating a return to the office have gone away. On the contrary, the charge sheet against the office is a long and serious one. As we emerge from the shadow of the pandemic, there are still many physical, psychological, cultural and emotional barriers for companies to overcome to 'earn the commute' and bring people back.

In this Trend Report, we highlight six common criticisms of the office which the global workplace industry has been grappling with:

- Uncoordinated hybrid working means that colleagues are not in at the same time as you are.
- **Dysfunctional** it's hard to get basic work tasks done and support systems are rarely seamless.
- Uncomfortable a generic office environment lacks the personalised comforts of home.

- Unhealthy the office continues to be associated with poor health and contamination.
- Exclusionary many people still don't feel they belong despite much talk of diversity, equity and inclusion.
- Unstimulating monotonous, bland and boring workspaces curb creativity and innovative thinking.

It is only by addressing these criticisms headon can we see the way to a better workplace. The good news is that there is now a richness of research models, design strategies and new technologies capable of turning the office from a place of difficulty to a dynamic destination for employees.

This Trend Report tunes into just some of those ideas. For example, a lack of synchronicity and coordination can be addressed by Organisational Network Analysis (ONA) and by Al-powered workplace apps. A dysfunctional workplace can be transformed by a new approach to space and settings. Lack of comfort in comparison to home can be tackled by heightened focus on such issues as lighting, acoustic privacy and temperature, as well as co-design processes.

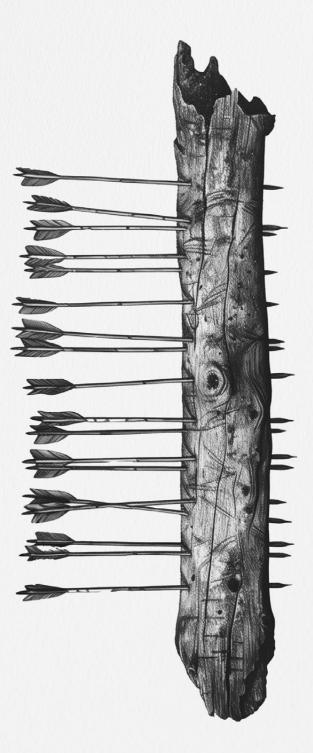
A reputation as a place of poor health can be combatted by strategies to create a more active, less sedentary workstyle and a brain-friendly workplace. A less exclusionary office can be achieved by greater focus on inclusive design and neurodiverse needs. Finally, the charge that the office lacks stimulation and curiosity can be met by super-experiences, greater visual complexity in building design, and 'flight to character' adaptive reuse of historic structures.

In each section of this report there are case studies showing how a wide variety of organisations – from Meta, Barclays, EY and ING Bank to British Land, Edge, Honeywell and M&C Saatchi – have taken decisive steps to restore confidence in the office as a great place to go.

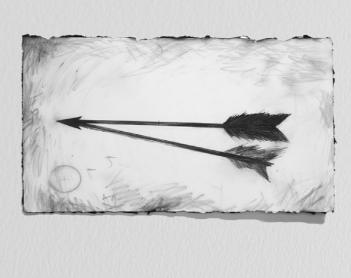
I would also draw your attention to WORKTECH Academy's newly issued WORKTECH Guides to sensors, booking systems, workplace apps, visitor management and experience tech, which are referenced in this report. These present more than 130 vendors in the smart technology field, offering further potential to burnish the office's credentials.

We welcome your feedback on this Trend Report, and we look forward to discussing it with you in our quarterly online Trend Report Briefing.

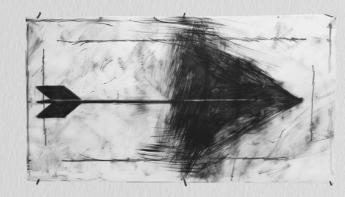
Professor Jeremy Myerson, Director, WORKTECH Academy



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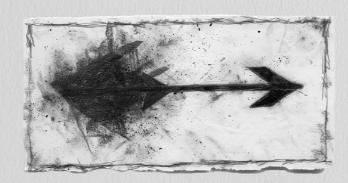


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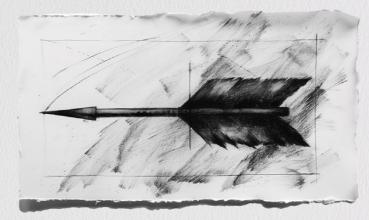
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DYSFUNCTIONAL

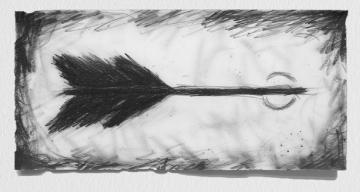


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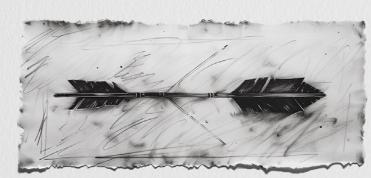


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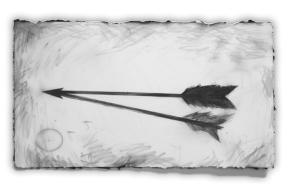
Employees who come into the office expect to sit with their colleagues – but this requires careful coordination. How can workplaces improve this aspect?

As companies adopt variations of hybrid working, office presence has become increasingly unpredictable. Employees and teams are struggling to coordinate their time in the office to correspond with those with whom they want to work and socialise. When people take the trouble to arrive in the workplace only to find the colleagues, settings and tools they need aren't available, this often leads to 'commute regret'.

Lack of coordination is a charge that is hard to shift. According to JLL's 2024 Global Occupancy Planning Benchmarking report, only 15% of organisations specifically define days for individuals to attend the office. While undefined days provide greater flexibility for workers and teams, it creates longer-term challenges for managing office space.

A recent study by tech start-up Deskbird identified that higher productivity in the office is linked to whether hybrid work is coordinated or uncoordinated. Making sure people can plan to meet with the right colleagues and book the right spaces when they come into the workplace – the essence of coordinated hybrid work – supports face-to-face collaboration on complex tasks. Effective coordination is also a factor in maintaining employee morale.

Coordinated hybrid work is a well-structured and organised model using workplace technology – some of which is showcased



in this section. These new digital tools allow business leaders, CRE managers, facility managers and employees to track who is coming into the office, when they are coming in, and where they are sitting. This gives employees the autonomy to plan their own schedules and settings when they are in the office.

Too often organisations look at productivity as the key measure of success when employees are in the office, but research suggests this might not be the sole metric for in-person working. A study by Harvard University researchers Emanuel, Harrington and Pallais suggests that 'proximity increases long-run social capital development at the expense of short-term output'. Social capital supports the growth of 'weak ties' in the workplace allowing employees to expand their networks, learn from colleagues, develop their career and think more creatively. For networks to flourish, employees need a coordinated hybrid work model to ensure that they have access to the right people in the office.

The influence of meta data on networks

Organisational Network Analysis (ONA) research conducted by Sophie Schuller and Rachel Casanova at Cushman and Wakefield found that when people work from home they work in hierarchies and sit within their existing service lines, relying on strong ties (managers and close colleagues) to build their networks. In contrast, the dynamic in the office is geared towards a more socially integrated and networked outcome.

However, coordinating the hybrid workplace requires a deep understanding of organisational networks. Companies should be able to map out which teams should be in the office on each day based on their communication and extended networks.

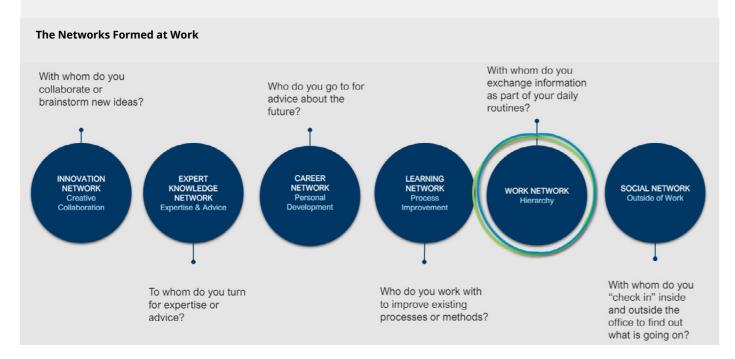
This information is very difficult to glean without the help of meta data, according to Casanova and Schuller. Their study examined

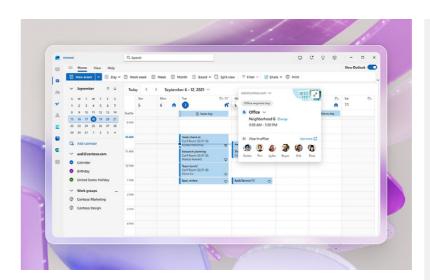
organisational networks through the digital footprint, or meta data, left behind by employees through their phone calls, emails, and instant messaging communications.

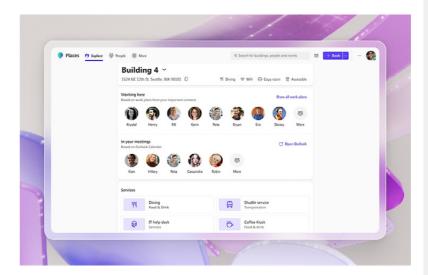
This data can be integrated with other objective datasets such as occupancy or environmental data to build a picture, allowing companies to quantify previously intangible relationships that exist within the organisation. In time, these algorithms can learn and predict patterns of communication across different networks, and companies can leverage this to strengthen networks in other areas of the business.

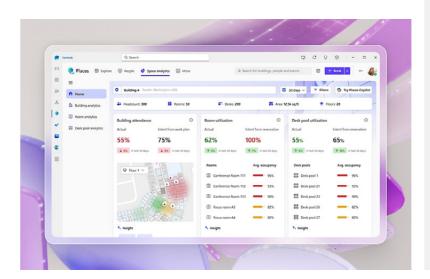
There are six key networks that are formed at work according to the Cushman and Wakefield study. These networks (see below) are part of our social capital and should be nourished and carefully managed in the workplace.

Source: <u>Does Space Matter?</u> Rachel Casanova and Sophie Schuller, Cushman and Wakefield, 2023.









Leveraging smart technologies

In an effort to address the challenges and complexities that come with coordinating a hybrid workforce, JLL is collaborating with Microsoft on its new Al-powered connected workplace app, Microsoft Places.

JLL has been piloting Places at its global headquarters at the Aon Center in Chicago since March 2024. Microsoft's Places app maps insights on the different and changing needs of employees, delivering solutions to help employees and teams coordinate in-person office time for better collaboration and connection.

The Place app streamlines the booking process for meeting rooms and shared seating, with a view to see where team members book desks. It integrates seamlessly with Microsoft Teams to incorporate team members from other locations and networks within the organisation – ensuring maximum engagement across the entire company.

Microsoft Places also provides employers with valuable insights on occupancy and space utilisation trends that facilities management teams can use to improve workplace experiences and help create adaptable, safe, and healthy buildings. For example, FM teams can adjust lighting and temperature and plan more efficient cleaning schedules based on occupancy trends.

Source: <u>Technology is central to fostering inperson collaboration</u>, JLL 2024

UNCOORDINATED

Automating workplace coordination: case study

British bank Barclays is working towards making coordination seamless across its workplaces. To enable better hybrid outcomes, the bank is piloting a shift away from traditional space reservation models to new Al tools that make planning and reservation simple.

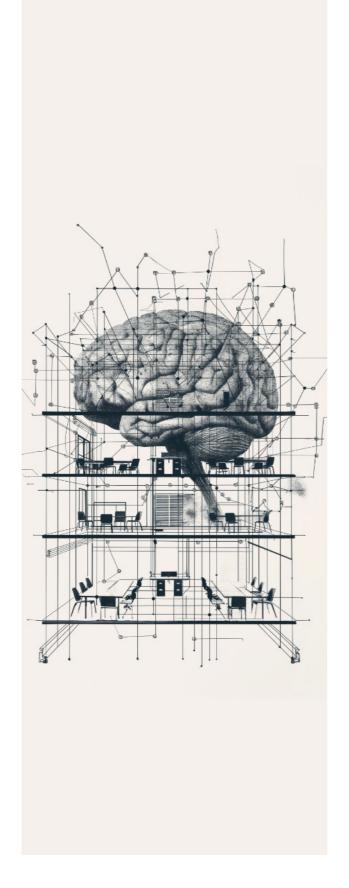
The outcomes Barclays is aiming to drive include:

- Moving away from an approach that links space to hierarchical teams;
- Predicting network patterns to ensure that colleagues and teams are co-located effectively and efficiently in real time;
- Dynamic management of real estate densification to support net zero targets.

To do this, Barclays is working with a vendor partner to develop a new product called TeamMate that simplifies the coordination that teams need in order to sit together. It's integrated into Microsoft Teams so that the touchpoint for colleagues is familiar and consistent rather than introducing yet another platform, and is designed to support personalisation.

Within the platform, individuals can identify themselves as part of a team – based on organisational structure, project, or simply who they want to sit with – and the Al tool automatically works out where people should sit on a given day.

This is a distinct shift away from some of the traditional challenges of space reservation such as inflexible team neighbourhoods that can't adapt to the highs and lows of more hybrid patterns of work. In addition to desk reservations, the AI will also be able to book meeting rooms and resources based on intelligent rules – so your room bookings are close to your desk, for example, or you can set it to book car parking automatically if you typically drive in.



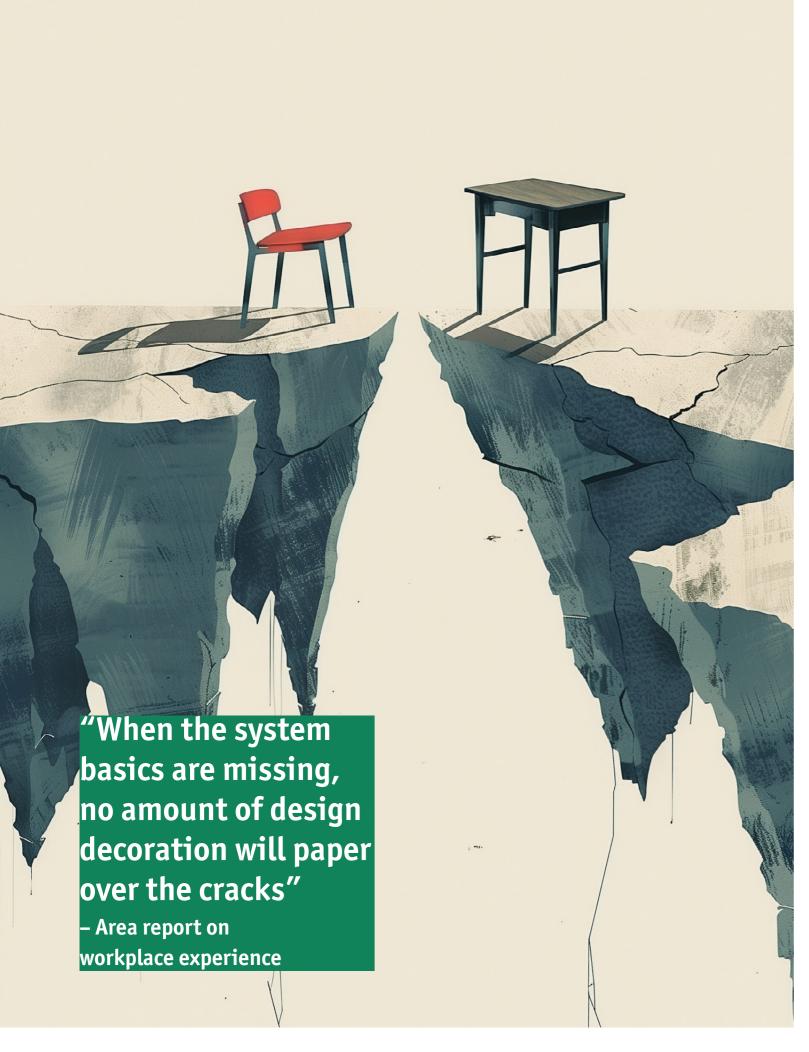


Nurturing teamwork and team dynamics

Management Journal

in a hybrid work model - Central European

ONA 'reality mining' - Workplace Geeks podcast



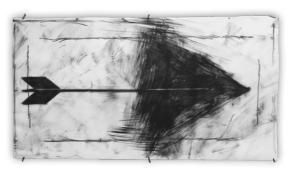
DYSFUNCTIONAL

The office might be courting new concepts but, at its most basic, it needs to support people to get work done. When will the workplace prioritise functionality?

One of the most fundamental criticisms of the office is that it is simply not fit for purpose – it is unable to support office workers in completing the most basic tasks. New workplace concepts are often aimed at curbing real estate costs rather than improving workplace functionality, so can even make things worse.

When architecture firm Gensler surveyed 16,000 office workers across 15 countries, its research found that the top reason employees come to the office is to focus on their work – this includes focusing on team and individual work. For this to take place, the workplace needs to support different types of work effectively.

To create more diverse workspaces that cater to different work needs, many organisations have turned to unassigned desks and versions of activity-based working. In these scenarios, individual workstations are replaced by shared desks and alternative work settings such as touchdown points or open collaboration areas. Employees are encouraged to choose where they work according to their preferences



and daily activities, but the reality often leads to a highly dysfunctional set of spaces if not proactively managed or designed effectively.

When German researchers Andrea Gerlitz and Marcel Hülsbeck conducted a systematic review of office concepts in relation to individual and company performance, they discovered that poor activity-based work models not only negatively impact performance but also affect employee satisfaction and health, outweighing any initial cost savings.

Increasingly, what matters to employees returning to the office is functional support and helpful systems that enable them to get work done. This section focuses on the strategies and solutions to address this fundamental need.

DYSFUNCTIONAL

Design factors to support five work modes

Gensler's latest global study of 16,000 office workers across 15 countries explored the elements of a high-performing workplace. The study found that high performance is based on two criteria: effectiveness (functionality) and experience (emotional response).

The research revealed that functional workplaces must effectively support five different work modes: working alone; working with others in-person; working with others virtually; learning; and socialising. These serve as fundamental design factors that support the full spectrum of work. The data analysis highlighted that the most important factors for designing a functional workplace are the design look and feel, ease of contact to people and resources, and noise levels in a workspace.

The study broke down the design attributes into the most important factors for each work mode. These attributes are the markers for designing functional and effective settings within a workplace. The attributes that matter most for the effectiveness of each work mode are:

WORKING ALONE

Meeting room availability

Lighting

Workpoint size

WORKING WITH OTHERS IN-PERSON

Ease of contact to people and resources

Lavout

WORKING WITH OTHERS VIRTUALLY

Design look and feel

Noise level

LEARNING

Design look and feel

Ability to rearrange meeting rooms

Noise level

Ease of contact to people and resources

SOCIALISING

Design look and feel

Ease of contact to people and resources

Proximity to meeting rooms

Source: Global Workplace Survey 2024, Gensler.



Functional support builds workplace experience

When UK design and fitout specialist Area organised a creative workshop with WORKTECH Academy to define the six main building blocks of workplace experience, 'functionality and support' emerged as the surprise inclusion on the list alongside such staples as 'a sense of identity', 'personalisation and choice' and 'sensory wellbeing'.

Area commented that employers can sometimes reach for the big creative gesture to improve workplace experience but forget about the fundamentals. There are clearly functional considerations such as tech support and seamless connectivity that can make all the difference to the working day. Area's conclusion: 'When the system basics are missing, no amount of design decoration will paper over the cracks.'

Source: Six essential building blocks for a better workplace experience, WORKTECH Academy/ Area (2023)



Designing workplaces based on work, not place

As organisations rethink the design of their workplaces, the general direction is towards creating a variety of spaces and amenities that support the different ways of getting work done. This requires a clear understanding of the types of work conducted in the organisation.

However, research by Deloitte Insights suggests that we need to move beyond basic function in the workplace and create environments in which employees can thrive and even drive innovation, not simply survive. The research highlights how organisations can use technology to elevate workplace design in three stages:

Survive: At the most basic level, organisations are deconstructing work to define where and how employees are performing tasks. It requires looking at both digital and physical assets and understanding their functions at a foundational level.

Thrive: For companies to differentiate themselves, they should design their workplaces based on work, not place. This requires listening to employees and teams about how to better support work in the office, piloting new approaches to gather feedback, and designing an ecosystem to allow a seamless transition between physical and digital spaces.

Drive: At its most functional, the workplace can drive innovation by taking an agile approach to improving workplace experience, including continuous assessment of breakthrough technologies. This environment cultivates an open culture of experimentation and change to create spaces that adapt to employee needs.

Source: Activating the future of workplace. Deloitte, 2023.

DYSFUNCTIONAL

Meta, London: case study

Meta has designed its London workplace at King's Cross around functionality and experience for its users. It has balanced a flexible, hybrid work approach with diverse spaces that are specifically mapped for different work activities.

Alternative work settings are designed with functionality at their core – these spaces include:

In-person meeting spaces: The desks are allocated around a neighbourhood system which allows teams to work closely together when they are in the office. Around the neighbourhood seating, there are meeting rooms of varying sizes including one-to-one phone booths for online meetings and calls. Many of the smaller meeting rooms have writeable walls, meaning that teams can conduct active and engaging brainstorms at any moment.

Virtual meeting spaces: Cameras are located in every meeting room – they can be trained on the writeable spaces, allowing remote participants to be part of the in-room activity.

Individual work: Meta's approach to desking reflects its hybrid policy, offering 15% assigned seating across its 4,000-person workforce in the building. In total, the space has 1,528 desks, 1,300 of which are occupied on a day-to-day basis. Around the edges of the neighbourhood design there are also quieter spaced desks with flexible fabric screens to allow for quiet and privacy when working closely on a project.

Learning spaces: There is a bootcamp area where all new employees spend their first few weeks doing their onboarding and training activities. Meta also offers a mentorship program where space is allocated specifically for new staff to book time with more experienced employees to work through specific issues or learn from their experience. On the ground floor is an event space with a large screen for 150 people which regularly hosts hackathons and other in-house events.

Social spaces: High footfall areas around the lifts are equipped with mini kitchens providing snacks, drinks and coffees to all staff. Their positioning encourages people to stop and take a break, and supports serendipitous encounters.

Recognising that the technology experience is critical to forming a functional space, Meta has in-house teams to ensure that digital tools are working correctly. Each floor also hosts a technology vending machine where cabling, keyboards, mice and other tech necessities are provided for free to ensure that staff can get the tech they need, even when the IT helpdesks are closed. Lockers on each floor also enable employees to leave their technology in a safe place to be picked up and fixed by the IT teams and returned to their floor for pick-up. This prevents any delays getting access to equipment or tracking support down.

Meta London hosted WORKTECH's **Unworking conference**, exploring smart technologies, on 4 June 2024.





Images showing Meta London workplace at King's Cross

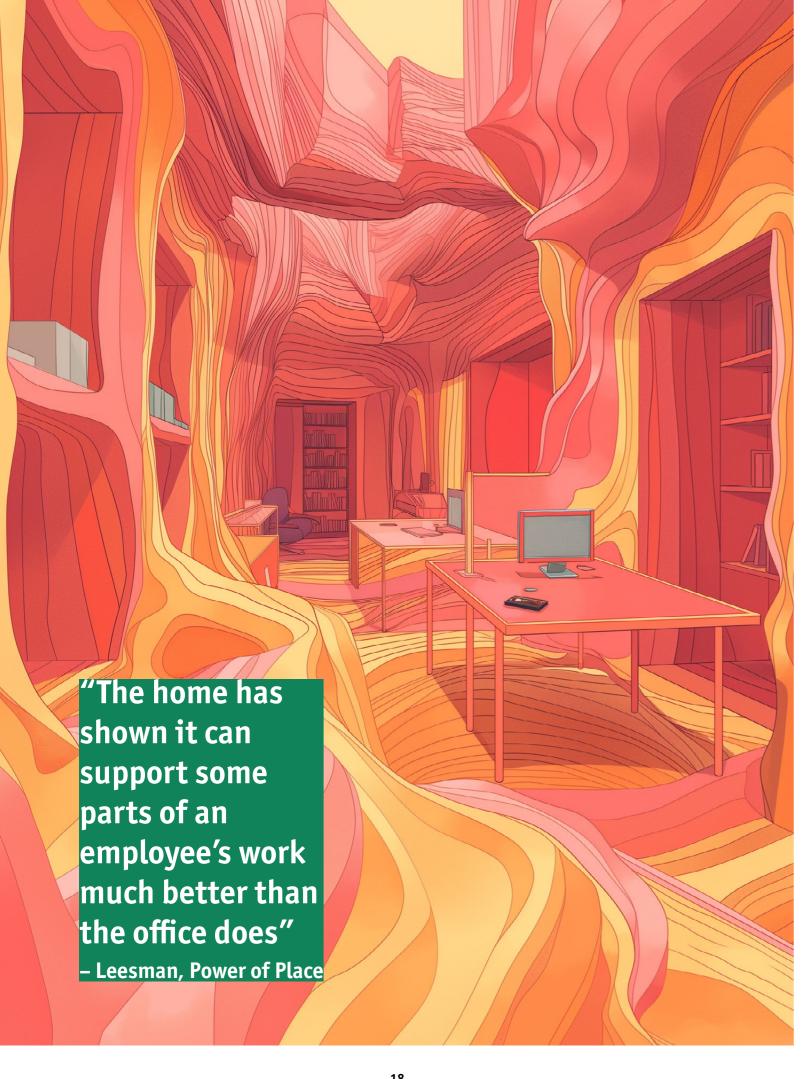
Further Reading

The productivity tax of new office concepts – Springer

The new workplace standards – JLL

<u>Functional Design – Cambridge</u> <u>Design Technology</u>

It's time for a new workplace model – Gensler



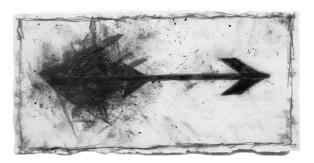
UNCOMFORTABLE

Employers who enjoyed the comforts of home during the pandemic are wary of returning to a generic office environment offering little personal control

When people were restricted to working from home during the pandemic, they quickly found that they could adapt their domestic workspace to maximise their personal comfort and wellbeing. They could surround themselves with their favourite objects, gaze at their chosen art, adapt their tech, eat what they wanted, screen out noise, and modulate temperature and light to suit their individual requirements.

So it should be no surprise that one of the main drawbacks of returning to the office is a perceived lack of comfort – both physical and psychological – as employees are expected to work in a large generic environment over which they have far less control.

The charge against the office as uncomfortable is reflected in new academic research. A study led by Charu Srivastava of Harvard University's Graduate School of Design – published in the *Journal of Environmental Psychology* (May 2024) – compared work performance and wellbeing between the office and home, based on a survey of more than 600 workers in the US and Canada. The research team discovered that while perceived work performance was significantly higher at the office, comfort and wellbeing were significantly higher at home.



What can be done to bring the comforts of home to the office, and thus reduce a perceived wellbeing deficit between the two spaces? This section scopes out some key solutions to support physical, functional and psychological comfort. These include lighting innovations to support natural rhythms, systems to improve air quality, measures to support acoustic privacy, soundscapes to reduce stress, ergonomic furniture, biophilia and co-designed processes to give people a greater sense of control over their office environment.

It is an indictment that the latest Leesman Index survey suggests that the home still does a better job of supporting knowledge workers than 'average' offices. As organisations everywhere seek to up their game on workplace experience, the fundamental dimension of comfort must be a key target.

The journey to psychological comfort

Comfort in the workplace is a complex condition to create and sustain. When psychologist Dr Jacqueline Vischer of the University of Montreal proposed a 'comfort model' for office environments in 2007, she presented three ascending levels of comfort: physical, functional and psychological. Like Maslow's Hierarchy of Needs, her influential model suggested that before people can strive for psychological needs, basic physiological needs must be satisfied first.

Physical comfort provides the basis of occupants' workspace experience and sets the minimum standard for basic habitability. If physical comfort is not at the right level, people feel that their health and safety might be in danger and, in some cases, such as poor indoor air quality or inadequate lighting, they cannot perform their work. So, companies need to ensure that their workspace are not, for example, too stuffy, too cold, too dimly lit or too noisy.

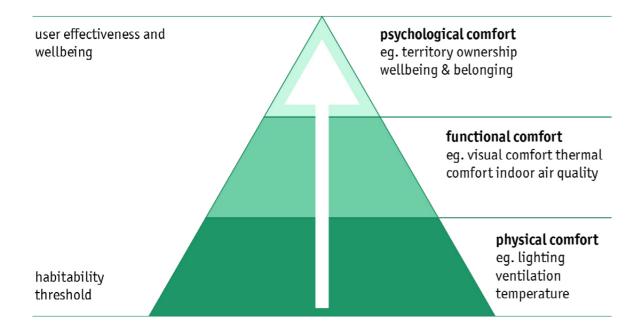
Most modern office buildings today meet basic health and safety standards, but that alone does not ensure a functionally comfortable workspace - that is, an environment that supports the tasks that people are performing. All work environments can be classified somewhere on the functional comfort continuum, ranging from

very supportive and comfortable at one extreme to unsupportive of work and stressful at the other. Choice of materials, colours, ergonomic furniture, circadian lighting and biophilic elements can all contribute to workspace with a higher degree of functional comfort.

Psychological comfort is based on measures of privacy, control, relationships and identity, as well as feelings of belonging and ownership. Environmental control includes access to tools that enable individual users to change local conditions (such as controlling lights, altering temperature or closing blinds) and participation in decision-making by those who occupy and use the workspace (such as choosing furnishings or art).

Vischer's ascending model of comfort remains relevant in today's hybrid work landscape where it is important for workplace design to go beyond safety and beyond simply getting the work done to address the psychological comfort of employees. This upper tier of comfort is the hardest for companies to get right but it yields the most powerful benefits in terms of staff loyalty and productivity.

Source: 'The Concept of Workplace Performance and Its Value to Managers', Jacqueline Vischer, California Management Review, December 2007



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The major headache of creating acoustic privacy

One of the toughest challenges around improving comfort in the office centres on acoustic privacy. While the home can often successfully shelter workers from noise and distraction, workplace acoustics has become the number one complaint for employees to raise.

When Finnish researchers Jenni Radun and Valtteri Hongisto (2023) examined a large global dataset asking 82,315 respondents about the fit between indoor environmental quality (IEQ) and what people asked to do at work, their study revealed that dissatisfaction with noise was strongly related to a preference for private offices. Based on the research, the researchers advocate that 'if private offices cannot be offered, at least private shared offices or soundproof workspaces such as mobile pods and booths should be offered for these office activities'.

In another 2023 paper entitled 'Common Sources of Occupant Dissatisfaction with Workspace Environments in 600 Office Buildings', researcher Thomas Parkinson of the University of Sydney and team combed through the extensive data archives at the

Center for the Built Environment (CBE) and learned that 'acoustics were the most common source of dissatisfaction', closely followed by temperature, visual privacy and lighting.

New data from Leesman, which has been drawn from 515 workplaces and the experiences of more than 24,000 employees, reinforces this recent research. It shows that the average knowledge worker is supported better in the average home than in the average office. Privacy and concentration emerge from the Leesman report as critical factors for improvement. As most people enjoy good acoustic privacy at home, they have a heightened expectations when they come into the office for spaces to focus and concentrate.

What's on the horizon? More enclosures and privacy booths, the return of the cubicle, and renewed interest in installing soundscapes in offices – especially those that offer the soothing sounds of nature.

Source: Power of Place: the difference between average and outstanding, Leesman (2024)

Common sources of dissatisfaction with workspaces

Lighting

Too much light

A systematic analysis of dissatisfaction from over 600 office buildings in the CBE Occupant Survey database



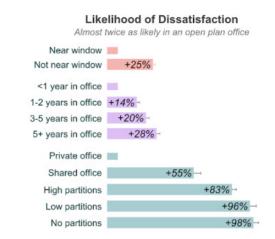
Air Quality

Carpet or furniture

Amount of Space

Work space

Ease of Interaction Noise is distracting



UNCOMFORTABLE UNCOMFORTABLE

Improving comfort: case studies

Booking.com, Amsterdam: The new Amsterdam campus for travel website Booking. com places a high priority on comfort for its 6,500 employees. Opened in 2023 to unite 11 separate offices across the city in one superlocation, this smart building designed by UN Studio leverages sensors throughout - these regulate the lighting and temperature based on occupancy and usage. The building has a biophilic design with more than 11,000 plants and sustainable materials are used throughout. Eleven different architects collaborated on the interior, which is based around a central atrium to encourage serendipitous encounters. Acoustics was a big consideration in the design,

EY, Stockholm: The multinational management consulting firm has used its Swedish HQ as a global pilot for hybrid ways of working, based on a flexible strategy of 'bricks, bytes and behaviours'. Among a host of innovations, EY has installed a biocentric lighting system which

with wood being treated with pinholes to

absorb the sound.

simulates the most important aspects of daylight indoors and is designed to support a stable circadian rhythm, with benefits for health and wellbeing. Employees can use in-room controls to customise the 'scene' within the space that they're using. Evaluation of the pilot led to a 13% increase in user satisfaction and a 26% rise in efficiency.

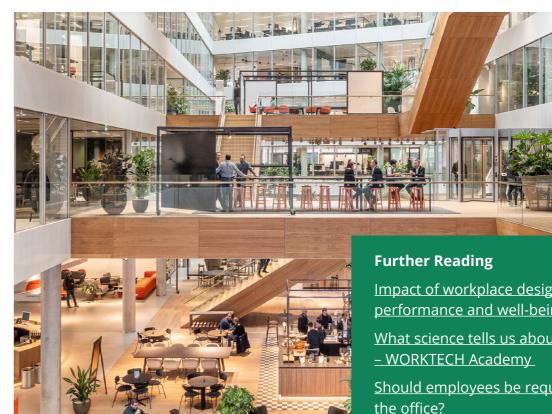
ING Bank, Amsterdam: When ING Bank opened its new corporate headquarters in Amsterdam called Cedars in 2020, it paid great attention to acoustic quality by creating a series of 'noise zones' - these radiate from a lively, buzzy area by the lift and pantry areas where colleagues meet and chat, through to the quieter working desk areas, and to a library-style area for silent concentration with a reading table and a series of private booths. Designed by Hofman Dujardin and Benthem Crouwel Architects, this workplace is home to around 2,800 employees. Two spacious atria cross-crossed by dynamic wooden floating platforms and staircases form the heart of the building.



Booking.com: smart technologies and sustainable design combined to good effect. Image courtesy of HofmanDujardin



EY, Stockholm: Swedish pilot provides high degree of employee customisation.



ING Bank: close attention paid in the design to acoustic comfort

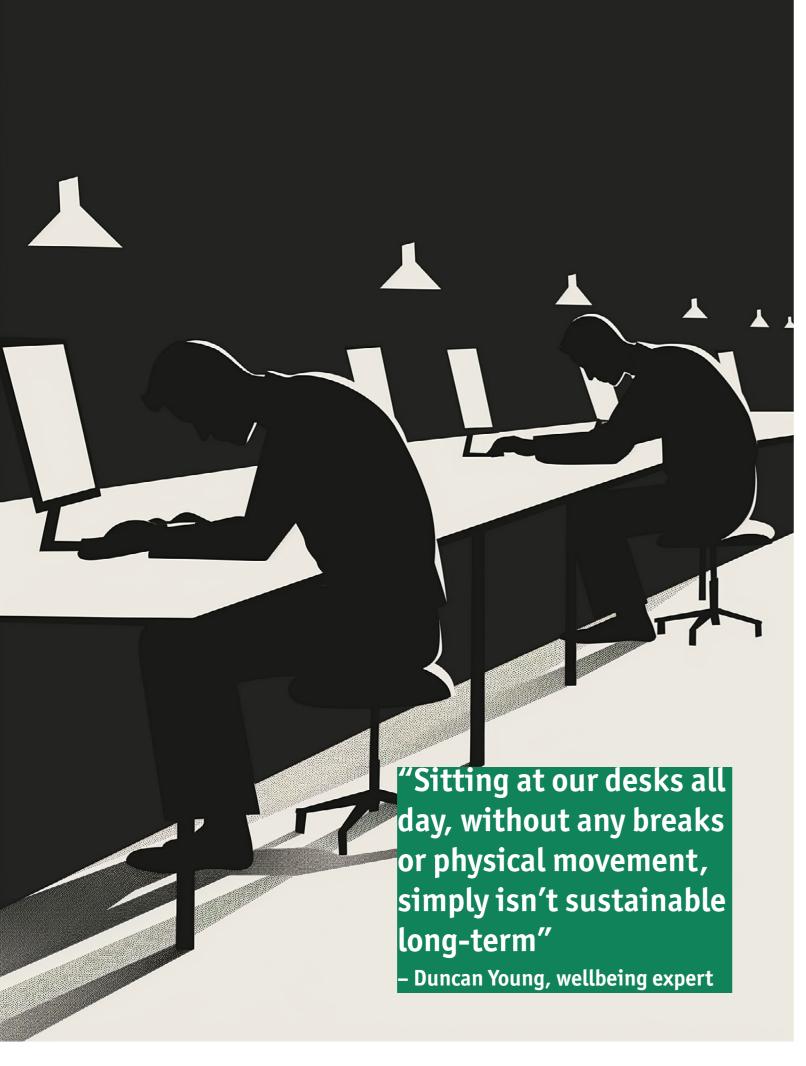
Impact of workplace design on perceived work

performance and well-being: Home versus office

What science tells us about soundscapes at work

Should employees be required to return to the office?

Melanopic lighting goes mainstream - Signify



UNHEALTHY

The office is still associated with poor health and contamination, so companies need to really focus on wellbeing if they want to bring people back to it

Some employee fears about the workplace are especially difficult to dispel – not least the idea that the office is an unhealthy and contaminated place to be. This preconception is a hangover from the pandemic when offices were shuttered to prevent the spread of disease, and it lingers despite the vast amount of work that organisations have done since to improve human health in office buildings with better air quality, biophilia, smarter lighting and more nutritious food.

Research studies have identified what people require for better wellbeing at work. Greenery, window views of nature, daylight and visual comfort are factors with the greatest positive effect on employees in the workplace, according to a **new study** by Yildirim et al (2024). Further studies have linked poor indoor environmental quality (IEQ) with poor physical and mental health, including stress, fatigue and burnout.

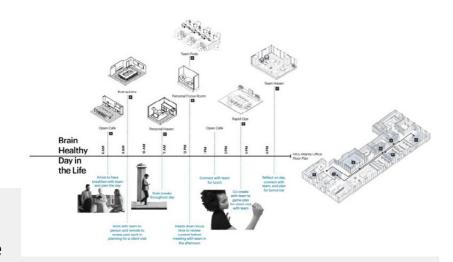
A sedentary workstyle with a lack of opportunity to incorporate physical movement into your routine presents a further challenge to working in a healthy environment. A **Canadian research team** led by Steve Pearse (2024) warns that 'prolonged sitting is associated with several negative adverse health effects, affecting the physical, physiological and cognitive systems.'



Even commuting to the office by public transport can exert a toll on health. The **2024 World Heart Report** reveals that global rates of death caused by heart conditions, diabetes and obesity due to air pollution have increased significantly in the past decade. Commuting in a private car doesn't make things any better – a 2023 **Spanish study** reveals that car commuters have higher costs and poorer mental health than those workers using active travel such as walking and cycling.

Reducing stress is key to making the office a healthier place to be. One way for companies to address this is to focus on two variables: first, IEQ parameters, including noise, lighting, temperature and air quality; and second, interior design factors, comprising of furniture, colours, biophilic design features and window access. The good news, as this section explores, is that there is now a wealth of new thinking and technological innovation to support the creation of healthier work environments.

UNHEALTHY



Bending towards the brain-healthy workplace

In considering the health-inducing qualities of an office environment it's important to look at how adaptations to a workspace can promote a brain-healthy setting, according to US architects HKS which partnered with the Center for Brain Health in the US to investigate the role of place, process and technology in creating a work environment that is 'brain healthy'.

Their study was based has on a mix of quantitative and qualitative research, including surveys, observations and interviews, and identified seven key findings:

- The brain can be trained.
- Managing distractions is a key challenge for focused work in the office.
- Multi-tasking is related to reduced effectiveness and increased burnout.
- Where we work matters, and using a range of spaces helps.
- Digital and physical workplace habits need time to develop.
- Being together in-person is related to improved connection to team and increased opportunities for informal knowledge sharing.
- Perceived connections to one's team are strong, but connection to the community is lagging.

Critically, their study showed that optimum efficiency is achieved when employees are given the time to acclimatise to the working environments around them. It also

acknowledged that the office isn't only for collaboration, and that spaces purposely designed for focused work are important. Tying into this is the need for appropriate acoustics, as well as the ability to exert control over the environment in which you are working.

The research proposes five primary affordances for achieving a brain healthy workplace: exploration and ideation; collaboration and co-creation; focus; rest and reflection; and social connection. It also identifies three fundamental habits that should underpin a workplace designed for brain health – the workplace ABC's:

- Alignment the intent of a task should be aligned with the environment in which it is performed.
- **Balance** employees should be afforded variability in their tasks throughout their working day.
- Connection relating to forming connections with workers around you in order to enhance a sense of belonging, and fostering a sense of purpose.

Additionally, the research reveals that one the best ways for companies to support a brain healthy workplace is through promoting active travel – whether this be through incorporating bike lockers, showers, or cycle repair shops or providing opportunities for employees to move around during the working day.

Source: 'Getting to a Brain Healthy Workplace' – Susan Chung et al (2023)

Technology supporting healthy workplaces

Companies are increasingly turning towards digital solutions to address the problem of unhealthy workplaces. Innovations ranging from air quality sensors to biophilic walls are promoting sustainable, forward-thinking health solutions in the office environment. Here are some of the technologies paving the way:

Awair produces sensors that can measure air quality in the office, in addition to a range of other factors that can influence our health. The Awair Omni is the latest in the range, measuring temperature, CO2, light, ambient noise, volatile organic compounds and more. The system works towards ensuring healthy air, which can mitigate airborne viruses, improve cognitive abilities and improve employee wellbeing.

Cisco's Digital Ceiling connects previously siloed building systems and services on a single IP network and provides 60W Universal Power over Ethernet to continuously power connected lights, IoT sensors, cameras and more. The intelligent network platform can also be used to generate customised user experiences that enhance the physical comfort of building users. For example, the system can raise or lower room temperature and increase or decrease fresh-air flow as more people move between spaces to optimise air quality.

R-Zero is a building intelligence company that aims to create healthy workplaces without retrofit. It uses occupancy and air quality sensors to achieve this, combined with chemical-free disinfection technology, software and API integrations. The system constantly monitors air quality, providing the option for immediate remediation via HVAC, advanced filtration or UV disinfection.

SageGreenLife Smart Walls are living green walls with patented technologies, combining nature with built environments to promote workplaces that are healthy and sustainable. The Sage SmartWalls™ integrate sensors and AI to measure and analyse over 100 ambient environmental factors and provide actionable insights. The hydroponic system consumes 90% less water, reduces energy, and deadens sound.

Metronaps began the EnergyPod based on the principle that a 20-minute nap can be highly beneficial for wellbeing and productivity. Designed with ergonomic considerations in mind, the EnergyPod's tilted back position, specially composed sleep music and gentle wake sequence of light and vibrations are all designed specifically to help users get to sleep quickly and wake up when they need to.

Source: WORKTECH Technology Guides 2024 – WORKTECH Academy







UNHEALTHY

Dispelling the unhealthy tag: case studies

Microsoft, Dublin: This mental health-oriented HQ building hosts around 2,000 workers and has a central atrium featuring a series of islands and a waterfall effect created by 125,000 LEDs. The combination of the waterfall and a wooden staircase extending over the faux lake creates a soothing and calm atmosphere for employees by bringing the contemplative power of nature into the building. This space is multi-functional: it can serve as a place of quiet reflection for employees or as an auditorium space when needed. With a wellness centre, gym, yoga studio, in-house bakery, several treatment rooms, and a visiting hairdresser, Microsoft has prioritised the psychological wellbeing of its staff.

Edge West, Amsterdam: This adaptive reuse project has been designed with a sharp focus on sophisticated technology and tenant health and wellbeing. The 60,000 square metre redevelopment is home to a range of tenants, including Alliander N.V., Signify, Boehringer Ingelheim and Athora Netherlands. Its designers partnered with leading lighting company Signify to introduce NatureConnect, a lighting innovation built on proven biophilic design principles to reconnect individuals to the outside world. The system mimics the natural patterns of daylight to create comfortable, engaging and attractive indoor environments.

10 Exchange Square, London: Coffey Architects has upgraded a previously outdated building on Broadgate in London for developer British Land with a welcoming social lobby and a policy of promoting active travel – 130 cycle storage spaces have been added to meet increasing employee demand for bike parking. Alongside these parking spaces, there is a bike repair station and showers for employees to use after cycling to the office. These changes not only reflect an increase in demand, but also encourage newcomers to take up cycling to work and boost their health as they commute.

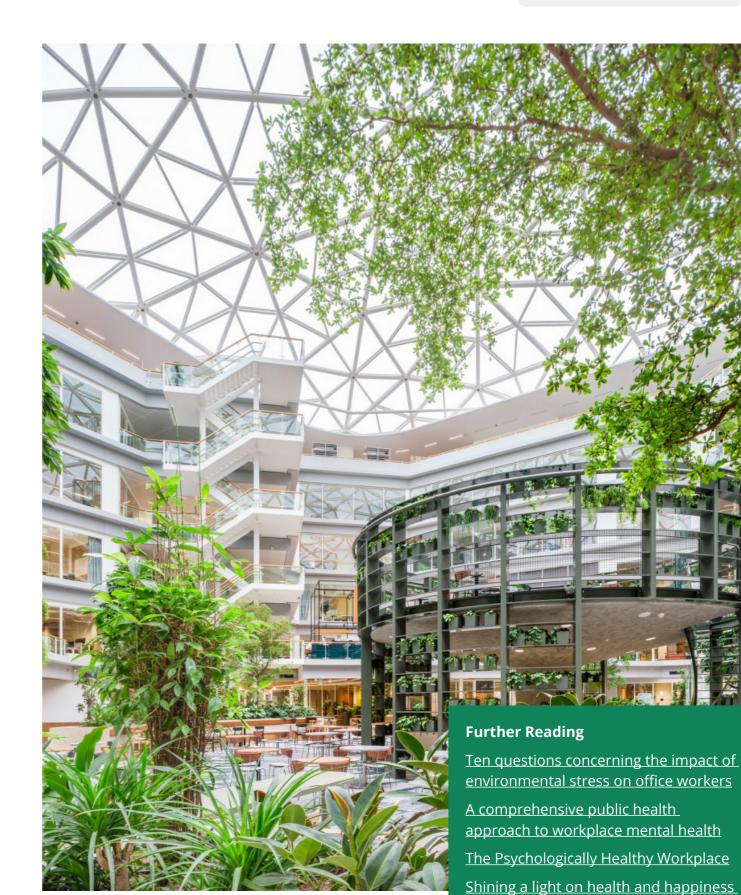


Microsoft, Dublin HQ



10 Exchange Square, London

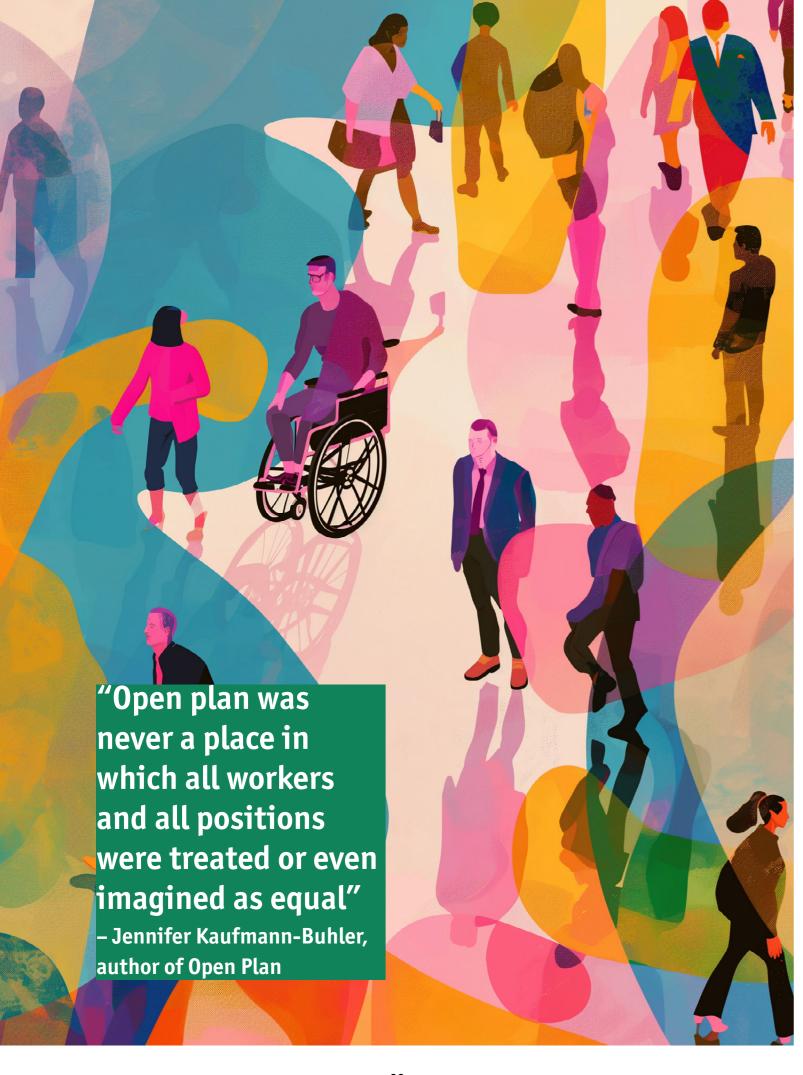
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in the workplace - WORKTECH Academy

Edge West, Amsterdam



EXCLUSIONARY

Companies are talking the talk on diversity, equity and inclusion. But they need to do more to make the workplace a truly inclusive experience

One of the biggest charges against the workplace today is that, for all the current talk about equity and diversity, offices are simply not inclusive. The needs and values of some people are favoured over others. Those who have traditionally been excluded continue to be shut out due to deep-rooted structures of power, conformity and control.

As the design historian Jennifer Kaufmann-Buhler has pointed out in her book *Open Plan:* A Design History of the American Office, the needs of white, able-bodied male professionals have been constantly prioritised over those of women, people of colour and workers with disabilities, whatever the ways in which openplan space has evolved. To which one can add older, neurodiverse and LGBT+ employees – the charge sheet is a long one. According to Kaufmann-Buhler, 'Open plan was never a place in which all workers and all positions were treated or even imagined as equal'.

This exclusionary character of the workplace has important implications for how businesses do or don't perform. There is a growing body of research which suggests that a more diverse, multicultural workforce leads to faster innovation and better ideas if given the right environment in which to thrive.



There is also a link between taking an inclusive approach and better employee wellbeing, as constantly making people feel that they do not belong adversely affects their mental health.

But while addressing workplace exclusion remains a problem, the good news is that there is a wealth of information and guidance out on different aspects of inclusive design, as this section highlights. There are also broad strategies that can make a difference.

In a February 2024 **paper** for the American Journal of Health Promotion, for example, a research team from Boston University's School of Public Heath argues that embedding diversity, equity and inclusion (DEI) efforts alongside employee health into broader organisational strategy 'is a crucial step towards fostering equitable practices that promote inclusive work environments and positive employee wellbeing'.

EXCLUSIONARY EXCLUSIONARY

From a duty of compliance to a sense of belonging

Working from home during the pandemic enabled people to tailor their environment to individual preferences. Coming back to the office, employees don't want to face barriers due to age, gender, physical disability, neurodiversity, or ethnicity - and they react badly when they do.

Companies today recognise the importance of going beyond standard anti-discrimination legislation to provide an environment in which everyone feels welcome and valued. The need to feel included has become one of the most powerful impulses for employees returning to the new workplace.

For corporate real estate leaders, it makes sense to focus workplace strategy on a sense of belonging. But strengthening community, promoting a positive culture and ensuring equitable opportunities for all employees requires careful planning.

A peer-reviewed paper in the Corporate Real Estate Journal by three experts from global furniture company MillerKnoll presents some foundational elements that can be directly imported into an organisation's existing

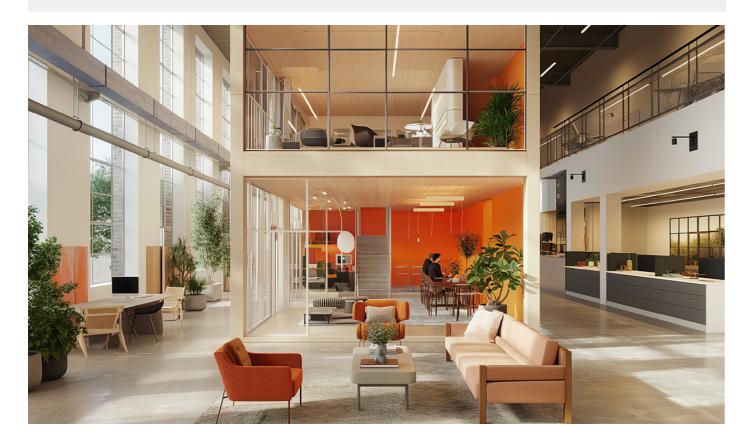
workplace strategy. It sets out the opportunity to move from 'a duty of compliance' to accommodate the special needs of a few within office spaces, to creating 'a sense of belonging' for highly diverse communities.

To achieve this, CRE teams should elevate their role beyond managing assets to unlocking the potential of people. This means forming a closer partnership with HR departments.

The MillerKnoll paper presents three lenses for inclusive design:

- **Go beyond 'barrier-free'** spaces that are welcoming to all build belonging.
- Make it intuitive and desirable our senses subconsciously read the world around us.
- Advance autonomy and achievement an environment can strengthen the resolve or improve the abilities of people.

Source: 'Places to belong: Practical considerations for creating inclusive and impactful places of work,' Corporate Real Estate Journal Vol 12 No 1 (2022). Authors: Ryan Anderson, Jolene De Jong and Joseph White. Read the full paper here.



Sensory Thresholds





HYPERSENSITIVE

NEUROTYPICAL

HYPOSENSITIVE

- Prefer less sensory stimuli
- Organic, simple patterns
- · Light, neutral colors
- · Clean, orderly spaces
- Little to no background noise
- · Personal space boundaries

- Prefer more sensory stimuli
- Lavering of textures and planes
- Saturated, contrasting colors
- · Plenty of visual interest
- Background chatter and/or music
- · Space to move/fidget

Creating a neurodiverse workplace

In their 2017 article for the Harvard Business Review, 'Teams Solve Problems Faster When They're More Cognitively Diverse', Alison Reynolds and David Lewis first drew attention to the key role of cognitive diversity in boosting company performance. Since then, organisations have been trying to figure out how to design for a neurodiverse workforce.

Among the leading design evangelists for a more neurodiverse workplace is Kay Sargent, senior principal and director of workplace at architects HOK. She explains that physical, cognitive and social exclusion occurs when there is a misalignment between individuals and their environment.

Sargent told a recent WORKTECH Academy **expert session** that neurodiversity in the workplace should be seen as a strength and not as a barrier to be overcome. Conditions include autism, ADHD, dyslexia, Parkinson's and Tourette's syndrome. Up to one in five people in the workforce are considered neurodivergent but fewer than half even know it.

According to Kay Sargent, the design of office environments can cater for both sensoryavoiding hyper-sensitive employees and sensoryseeking hypno-sensitive ones within a single space. She quotes an autistic student: 'We're

freshwater fish in salt water. Put us in fresh water and we function just fine. Put us in salt water and we struggle to survive.'

HOK has pioneered new approaches to create more inclusive workplaces over the past five years and its research report 'Designing a Neurodiverse Workplace' has been widely cited as a key guide in the field. HOK suggests six principles to accommodate neurodiverse employees:

- Accessible and informative design
- Sensory-responsive environments
- Flexible and comfortable spaces
- Biophilia
- Quiet and private retreats
- Movement and engagement

Now however, the firm is bringing key principles from its neurodiversity research into the wider terrain by creating inclusive guidelines for healthcare environments, science labs, airports, sports venues and courtrooms. The move is a deliberate one, says HOK's Kay Sargent: 'We've reached a critical point in how we think about neurodiverse needs in relation to the built environment.'

Source: Inclusive Design for Complex Buildings, HOK Forward (2023)

EXCLUSIONARY

Addressing exclusion: case studies

Organisations around the world are today rethinking their workplace to address exclusionary practices and make their environments more inclusive. According to a new report from technology company MRI with WORKTECH Academy, there are four key design approaches to make the office more inclusive of the widest range of needs.

Accessible workplaces are designed to include people with mobility issues or sight and hearing loss. An accessible workplace in which all current and future employees have equal access to the office is no longer an option for companies – it's become a necessity. Organisations failing to meet accessibility standards will find themselves losing talent.

For example: At the Harkin Institute for Public Policy and Citizen Engagement at Drake University in Iowa, USA, accessibility is fundamental to the building's design to ensure all staff and visitors can participate equally. Built with extra wide hallways and walkways, the Institute enables wheelchair users to move through the space side-by-side with their colleagues and all desks within the workspaces are height-adjustable for wheelchair users. The Institute uses individual tables positioned in a circle for meeting rooms so each participant in the room can see the face of the person talking. This is particularly important for deaf or hearingimpaired employees who may need to lip read during meetings.

Neurodiverse workplaces address the needs of people who are both hyper-sensitive and hypo-sensitive to the environment.

For example: Honeywell's office in Charlotte, NC, USA, designed by architects HOK, is designed around the idea of creating neighbourhoods for different teams to work in. Each neighbourhood provides a different kind of environment, using

covered booths with dynamic lighting and greenery in some spaces to provide settings for quiet reflection away from the noisier areas of the open plan office. This approach lets employees with different sensory needs find spaces suited to their working requirements.

Hierarchy-free offices take a democratic approach to the traditionally hierarchical workplace. Accelerated by the levelling experiences of the pandemic and driven by social change, this design approach is more equitable and inclusive. Space is shared equally between staff irrespective of seniority and salary, not divided up to favour those with the biggest paycheck.

For example: New York advertising firm The Barbarian Group worked with Clive Wilkinson Architects to create one long wooden desk that weaves throughout the open plan office space, rising to create walkways and tunnels and creating space for meetings as well as individual desking. This approach means that the intern shares the same desk as the CEO, placing everybody on an equal footing and offering equal access to meeting spaces and other amenities.

Community-based offices are based around shared identities, interests and practices.

For example: The Coven in St. Paul, Minnesota, USA, is a coworking space designed specifically for women and non-binary people. To create a safe, supportive, and creative community, this office has been designed with a specific clientele in mind: natural light, high ceilings, an unapologetically pink floor, and eye-catching murals offer a more feminine approach than traditional office design.

Source: '20 Different Ways Companies are Transforming their Offices', MRI Software and WORKTECH Academy report (2024)



This graphic demonstrates how giving everyone the same thing can lead to barriers for some people whereas the principle of equity allows each person to thrive with a cycle designed for their unique needs. (Source: **Robert Wood Johnson Foundation**).

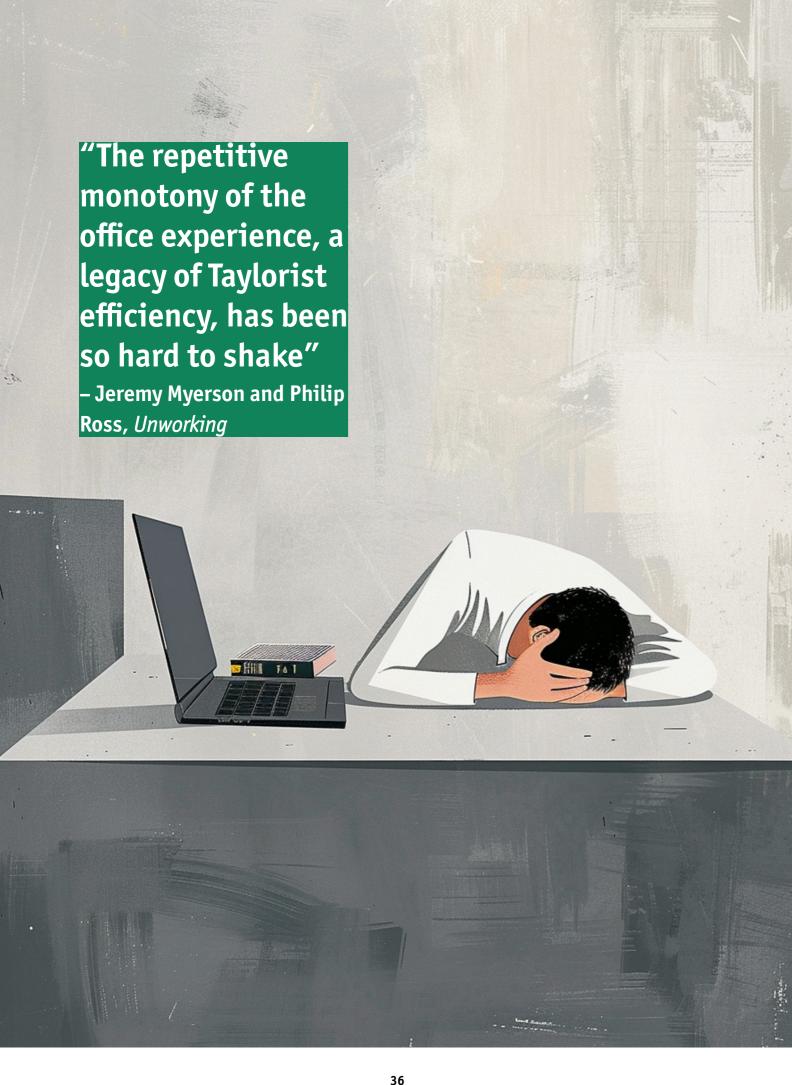


Honeywell's office in Charlotte, NC, USA, designed by architects HOK. (source: HOK Architects)

Inclusive Desing Toolkit – University of Cambridge

Hybrid is the future of work – Stanford University

The elusive inclusive workplace – McKinsey



UNSTIMULATING

If companies want to move the dial on creativity and innovation, offices need to shed their reputation for generic design and monotonous repetition

The final item on the charge sheet is that the office is simply not a stimulating place to be. Generic, repetitive, bland, boring...it doesn't matter how you care to describe it, the standard daily experience of the workplace can curb creativity and stifle innovation. As Jeremy Myerson and Philip Ross suggest their book, *Unworking: The reinvention of the modern office*, 'The office needs a level of unpredictability if its aim is to incubate new ideas and push boundaries.'

A slow return to the office has left many workplaces eerily quiet and lacking in social buzz, adding to the lack of stimulation. The more that employees hesitate at the door, the harder it becomes for the office to bounce back as a dynamic destination. When Unispace conducted a survey of 3,000 office workers and 2,750 employers across Europe for its report, 'The Reluctant Returner', it discovered a mismatch between what employers believe is a creatively stimulating environment and what staff really want. How can we bridge this gap?

According to **research** by Colenberg and associates (2023), companies are missing a trick when they stick with bland, uncreative workspaces that are not conducive to social interaction. Even the exterior façades of



buildings are important to making the office more stimulating for employees – first impressions matter according to a **study** by Batool and colleagues (2021).

Within the interior of a building, chronic boredom, brought about by visually unappealing and unstimulating workplace design, is another factor to consider. **Dr Shahram Heshmat**, a professor at the University of Illinois, has explained how workplace monotony can be brought about by work experiences that stop feeling novel. Once the brain has identified an experience as being familiar, it stops seeking rewards – consequently, motivation is lowered.

The solution to this involves a constant reevaluation of employee needs and wants in the workplace, whether that be changing up the artwork on the walls, curating events in the space, or reconfiguring office furniture and interiors. This section explores the current drive to make the office more stimulating.

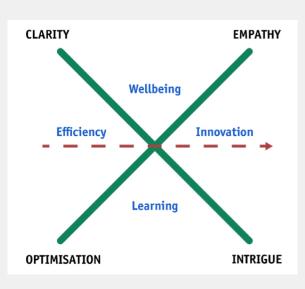
UNSTIMULATING

The rise of the super-experience

The term 'super experience' was first coined in 2019 in a report by Australian developer Mirvac with WORKTECH Academy. It describes a shift from UX (User Experience) to SX (Super Experience), with the super-experience defined as 'a workplace experience of superior quality, originality and impact, appealing on an emotional level as well as an intellectual one'.

Since the pandemic, the super-experience has gained further ground as a strategy for companies seeking to create more stimulating environments that encourage in-office working. Often, super-experiences combine physical and digital elements. They can stimulate curiosity, create a sense of purpose or instil a sense of belonging. They can be small and intimate or grand in scale.

Recent examples include the lobby of Salesforce's San Francisco office, where you're confronted with a giant digital wall that can display redwood forests or waterfalls in high



resolution, and The Summit at the top of One Vanderbilt, a 93-storey skyscraper in New York where a visitor-accessible platform on three levels offers an amazing sensory experience with curved walls and immersive art installations.

Historically, the modern office was all about combining clarity with optimisation. The principle was to make processes and facilities easy and clear to understand and use, while optimising resources. This served organisational efficiency very well. Today, however, things are different. Strategists agree that experiences should sit along a spectrum. Experiences should have levels of intrigue, delight and curiosity – not just clarity, which can be dull and routine. Experiences should be empathic in terms of sensing and responding to other people's emotions, and not just be all about optimising resources.

Super-experiences are therefore emerging as experiences shift from clarity and optimisation towards intrigue and empathy. Experiences that combine greater empathy with some element of intrigue or curiosity can be seen in particular to support organisational innovation, as individual creativity and imagination is unleashed in partnership with trust and empowerment. It explains why spaces for innovation sometimes look more relaxed and friendly than a normal office space with softer seating, lower light levels, and artworks and artefacts about the place to stimulate and inspire.

Source: The Super-Experience, Mirvac (2019)

Stopping the spread of soulless buildings

Building design that is boring and lacks visual complexity has been shown to increase cortisol, causing higher levels of stress. In an unstimulating work setting, this can lead to employees who are on edge in their surroundings, resulting in a slowdown in productivity.

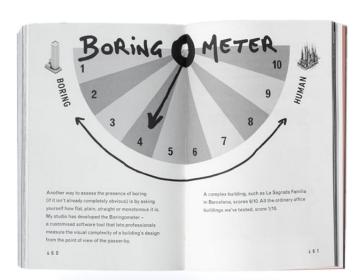
The Humanise campaign, launched by the leading designer Thomas Heatherwick of Heatherwick Studio, links boring buildings (termed the 'blandemic') with the wider climate emergency. As a plethora of conformist new modern buildings impact the environment, Humanise proposes one simple rule: a building should be able to hold your attention for the time it takes to pass by it.

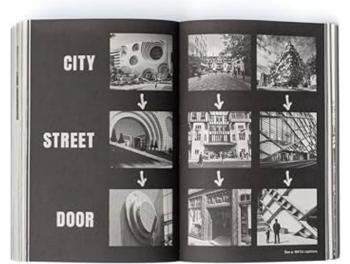
Heatherwick also advocates for considering emotion as a function, meaning that it is imperative to accept that how people feel about a building is a critical part of its function. This ties into his concept of 1,000-year thinking, in which buildings should be designed with the hope that they will be stimulating enough to last 1,000 years.

On the back of this campaign, Loughborough University in the UK is working with Thomas Heatherwick to develop a Master's degree which aims to challenge conventional architecture design. Set to start in September 2025, it is hoped that the course will encourage a wave of architects who will 'inspire joyful architecture'.

Source: <u>Humanise campaign launched to</u> <u>stop the spread of boring soulless buildings</u> Heatherwick Studio







UNSTIMULATING

A flight to character: case studies

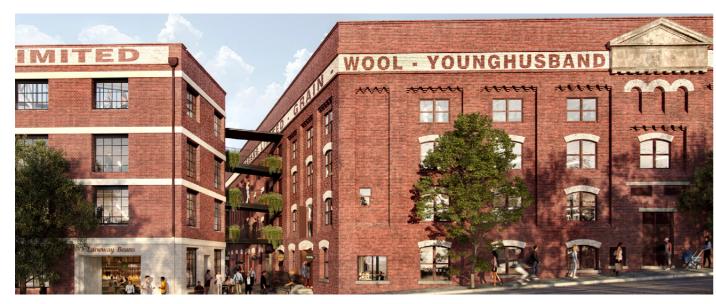
Most global cities are currently seeing organisations pursue a 'flight to quality' in office real estate. But what if the pursuit of technical excellence with high sustainability ratings is not enough by itself to bring people back to the office? International consultancy ERA-co suggests that 'a flight to character' will provide more meaning, purpose and authenticity, especially when workspace is created in adaptively reused historic structures. Here are three examples from Australia which demonstrate the trend:

M&C Saatchi, Sydney: M&C Saatchi reinvented a 100-year-old heritage listed space into a diverse, character-filled home for its diverse set of advertising companies. The character, connectiveness and volume of the space provides an 'engine room' – or cathedral for work – whilst some of the smaller, original spaces provide opportunities for retreat and meetings. The diversity of space and changing parameters make for a more diverse and interesting workplace. The base building, which designers might once have covered over or concealed in a drive for minimalism, provides a rich reminder of the opulent past and stories of past success and innovation. The rich and layered finishes provide the ideal base for a simple and elegant interior.

Goodman Hayesbery, Sydney: A dilapidated hat factory has been transformed into a compelling, light filled, green and industrial chic workplace for employees of property and infrastructure group Goodman. By linking the building's heritage and industrial typology to Goodman's market position, this project 'leads the way' by illustrating to Goodman's clients how 'industrial' space can create an interior that supports positive employ engagement and increased occupation and utilisation of space.

Younghusband Woolstore Redevelopment, **Melbourne:** Set in Melbourne's inner-west suburb of Kensington, this is a significant adaptive reuse project for a 123-year-old redbrick wool store and adjoining network of industrial early-20th-century buildings. Younghusband's rich history can be traced back to 1901 when the first wool store building was commissioned. In recent years, the former store has been adapted for a range of uses. Currently, it is in the process of being transformed into an office and retail space that celebrates the building's texture and patina. To retain character, various trades have relearnt lost techniques of traditional construction in order to reinstate the heritage details in their most authentic form, such as a herringbone timber floor structure.

Source: Flight to character: a fightback begins against homogenous global offices – WORKTECH Academy (2024)



Younghusband Woolstore Redevelopment, courtesy of ERA-co



Goodman Hayesbery, courtesy of ERA-co

M&C Saatchi, courtesy of ERA-co



What the workplace can learn from Taylor Swift and U2 – Work Design

The rise of boring architecture – and the case for radically human buildings - Thomas Heatherwick

SMART Work is Stimulating - Centre for Transformative Work Design

Why boredom at work is more dangerous than burnout – Forbes

ON OUR RADAR

Here is a selection of external links to articles, podcasts and books on subjects that are on WORKTECH Academy's radar this quarter:



Book: Working Assumptions Podcast: Workplace by Julia Hobsbawm

Julia Hobsbawm's latest book, Working Assumptions, is based on her recent series of Bloomberg articles and sets some of the key issues affecting how we live and work in a wider economic and cultural frame.

Read more



Book: The Secrets to Happiness at Work by **Tracy Brower**

This book by Tracy Brower, PhD sociologist and an expert in work-life and happiness, brings together science and pragmatic recommendations for wellbeing, fulfilment, satisfaction and success.



Geeks with Nick Bloom

There's no denying that women face different challenges in the workplace and in this podcast from the Harvard Business Review these challenges are brought to the fore and investigated.

Read more



Podcast: Unworking with David Dewane

This conversation between Philip Ross and David Dewane explores the innovative approaches to crafting eudaimonia - the highest state of human flourishing within office spaces.



Research: The Inclusive City Index by Cushman & Wakefield

The Inclusive Cities Barometer is a data-based study on the impact of the built environment on inclusiveness and social cohesion in cities, conducted by Cushman and Wakefield to track and quantify this data worldwide.

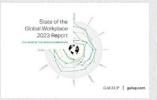
Read more



Article: Creating a sense of place with lighting by **Martina Frattura**

This article explores how lighting interventions can help cultivate and sustain a sense of place. Using a case study, it looks at the role of light in urban space and its experience as a means of reuniting the local community.

Read more



Research: State of the **Global Workplace 2024** by Gallup

This report captures the voice of global employees on topics including engagement, loneliness, mental health, managers and more — essential insights for leaders facing an evolving workplace.

Read more



Article: New Fitwel standard meeting rising demand for healthy, high-quality buildings by Andrew Sansom

This article looks at the new Fitwel standard which translates the latest public health research to optimise real estate assets for health and quality of life. The focus potential to enhance aesthetic of the new standard is on user experience and wellbeing.

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