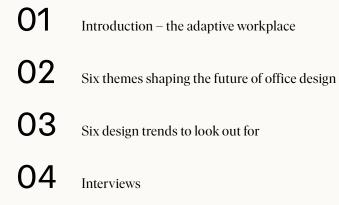


The future office

TREND FORECAST 2024

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FOREWORD

Our mission at Deltalight is to turn the conceptual into light, fulfilling our clients' intentions and considering user comfort at every step. That is what drives us.

We believe that light, whether natural or man-made, should provide comfort. It should offer a sense of ease for the eye and self, day and night. That's why our products are, first and foremost, designed for function. We go beyond a signature aesthetic. By carefully considering the different ingredients that create light, we aim to stimulate a sense of wellbeing.

To futureproof our lighting solutions, it is key to understand the evolutions in architecture, lifestyles, behaviours, the human body and mind, and so much more. This is why we commissioned this trend report. By bringing together leading voices from across architecture, interior design and lighting design, we hope to understand how tomorrow's workplaces will require us to think differently as our needs, expectations and rituals change.

01

The future of the office is *hybrid, flexible* and *dynamic*

The arrival of 2024 marked the arrival of 'the great return'. For the first time since the COVID-19 pandemic, more people are back working in a physical office than at home. A UK industry report found that 9 out of 10 companies with office space expect to have their staff back in-house, either fully or partially, by the end of 2024,¹ while a Europe-wide survey found that twothirds of companies already have a requirement in place for staff to be in the office for more than half of the week.² It is a time when many major companies – from Goldman Sachs to Google³ – are reassessing whether remote working models remain viable. Some are demanding that employees scale back, while others are putting an end to them completely. Even Zoom, the digital platform that brought videoconferencing to the masses, has revised its work-from-home policy.4

This doesn't mean things are set to return to the pre-pandemic status quo. In fact, the reality is far from it. Expectations of how the office should look and function have completely shifted. Although remote working is declining, hybrid working is still the preference of many.

"The office is back, but not as we know it." A recent US report found that 70% of employers are now operating on a hybrid model,⁵ while a survey by office provider WeWork found that just 10% of companies require full-time in-person attendance.⁶ That means today's workplace must be more flexible than ever before. Other factors are also at play.

Against a global backdrop that includes climate crisis, geopolitical instability, the rise of artificial intelligence and growing awareness of inclusivity and mental health issues, the office has become more sustainable, dynamic and diverse. Spaces are now designed to promote more responsible use of materials and reduction of waste, in a global shift towards a circular economy. Technology is playing a crucial role in this, improving the efficiency of how workplaces function in terms of everything from energy use to resource management. Meanwhile, a more human-centric approach to interior design has increased focus on user comfort, resulting in spaces that allow all types of personality to thrive.

- 1 90% of Companies Will Return to Office By the End of 2024 survey by ResumeBuilder
- 2 European Office Occupier Sentiment Survey 2023 report by CBRE
- 3 "90% of companies say they'll return to the office by the end of 2024 but the 5-day commute is 'dead,' experts say" CNBC
- 4 "Zoom made employees return to the office to feel your hybrid pain" Washington Post
- 5 "The Surprising Rise Of Hybrid Work" Forbes
- ${\bf 6}$ Leaders' desire for more in-person collaboration is driving the return to office, WeWork survey finds press release by WeWork

THE ADAPTIVE WORKPLACE

Significantly, the desk has lost its status as the focal point of our office spaces. Since the birth of the modern workplace in the 1960s, the decade when the cubicle reigned supreme, the fixed desk has been an enduring mainstay. Even as desktop computers gave way to laptops and smart devices, both corporate offices and the new breed of co-working spaces continued to be dominated by desks. But with the shift to hybrid, the personal workstation no longer represents an efficient use of space. A global survey by workplace tech supplier XY Sense found that 31% of desks were unused, with a further 21% used for less than one hour per day.⁷ This is fuelling demand for spaces that can cater to more varied types of activity. The desk is now just one part of what is required for a vibrant and functional workspace. There is a greater focus on creativity and innovation, rather than mindless productivity, and on the value of interaction and collaboration.

This report explores what this all means for the future of offices. Drawing on the latest industry research, plus insight from leading voices in workplace design, it highlights the key trends that are set to change the design landscape of the office both in the immediate future and for the long term.



Amy Frearson is a London-

based journalist and editor specialising in architecture and design. She is editorat-large for Dezeen, the world's biggest design website, and a regular contributor to titles including Elle Decoration and the Financial Times. She is the co-author of All Together Now: The Co-living and Co-working Revolution, published by RIBA Books, and she was the editor of the exhibition catalogue for The Garden of Privatised Delights, the British Pavilion at the Venice Architecture Biennale in 2021. Before moving into journalism, Amy worked in architectural practice. She holds a masters in architectural history from The Bartlett and a degree in architecture from Kingston University.

7 XY Sense Workplace Utilization Index Q3 2023 – XY Sense data insights

Six themes shaping the future of office design

01	Office layouts become more diverse
02	Co-working enlivens suburban neighbourhoods
03	Sensor data makes the workplace more efficient
04	Workplace environments reflect company culture and values
05	Restorative spaces address mental wellbeing and neurodiversity
06	Ambitious retrofits become valuable assets



01 Office layouts become— more diverse

Hybrid working cultures have played a key role in changing how office layouts are planned, with a significant increase in the amount of space allocated to informal meeting and lounge areas.

WeWork reports that 26 to 35% of all available work points today are informal settings that can also function as something else,⁸ while a global survey by KnightFrank found that 55% of businesses will increase the proportion of collaborative space in their offices over the next three years.⁹

Some interior designers suggest a 50-50 split between traditional desks and collaborative spaces could soon become the norm. That means it's no longer enough to simply provide meeting rooms and incidental "water cooler moment" spaces. Workplaces will require a diverse mix of spaces, to facilitate conversations that span the divide between the extremely formal and extremely casual.

Booths, bars, lounge seats and pin-up areas have all become essential ingredients for promoting knowledge exchange and defining company office cultures. As well as bringing people closer together, they also offer opportunities for individuals to seek a change of scenery. If one environment becomes uncomfortable or distracting, these flexible areas can double as casual workstations. Some are geared more towards in-person collaboration, while others – from soundproof pods to cocoonstyle seats – provide flexibility for video calls.

PROJECT 6 Babmaes Street, London

This experimental co-working space doesn't contain any traditional desks. Fathom Architects designed the space for customers of property company The Crown Estate, with more of a focus on meetings and get-togethers. Large tables, lounge seating and diner-style booths create an environment with a multifunctional feel, able to easily host events as well as work activities.





ARCHITECTURE: FATHOM ARCHITECTS PHOTOGRAPHY: JAMES BALSTON

8 WeWork Global Office Trends report

 $9\,55\%$ of Businesses Want More Collaboration Space in Their Offices – KnightFrank insights

02 Co-working enlivens suburban— neighbourhoods

When co-working first went mainstream, spaces were typically located in city centre locations close to urban amenities and transport links. Now, a new breed of co-working space is popping up in small towns and suburban neighbourhoods.¹⁰ These spaces are attractive because they are close to where people live. Occupants can create separation between their work and home lives but still enjoy the same flexibility and convenience as working from home.

The trend is not just affecting freelance workers and small businesses; IWG, the world's biggest workspace provider, is among those exploring how it can benefit larger businesses. The company has been steadily expanding into suburban locations over the past two years, based on research that found that, between 2020 and 2023, the number of people in the US swapping cities for smaller communities increased by 59%.¹¹ For businesses, it enables the possibility of satellite offices that either replace or support a central headquarters.

There are other benefits too; keeping people close to where they live means they are more likely to spend their money supporting local businesses, while reduced commute times offer energy savings and promote a better work/life balance.

PIONEER Patch

Patch is a co-working provider that offers "work near home" in towns on the outskirts of London. Its mission is to create workspaces on local high streets, so people don't have to travel into the city to work. The first three locations, in Twickenham, High Wycombe and Chelmsford, are designed by creative director Paloma Strelitz with a focus on local culture and community.



ARCHITECTURE: PALOMA STRELITZ PHOTOGRAPHY: BENOÎT GROGAN-AVIGNON

10 After WeWork, coworking heads to the suburbs – Fast Company

 $11\ \text{The rebirth of suburbs, towns and countryside through hybrid working}$ – IWG report

03 Sensor data makes the— workplace more efficient

The number of Internet of Things (IoT) devices worldwide reached 15 billion in 2023, with the number expected to rise to 29 billion by 2030.¹² This has huge implications for how workplaces are designed and managed. By linking smart devices to centralised control systems, businesses can leverage the power of artificial intelligence to manage office spaces more effectively. Many are already using sensor technology to track and control things like temperature, lighting, air quality and security, allowing them to reduce both energy consumption and building operation costs. Now the focus is on occupancy monitoring. With fewer people working in the office full-time, sensor data can help businesses understand how and when people are engaging with their workspace and each other. This can inform decisions about how floor plans should be laid out, or the volume of meeting space to provide. It can also support desk and room booking software systems, allowing certain parts of an office to be effectively shut down when occupancy is low. This results in environments that are more human-centric, with conditions tailored specifically to the people using them.

04 Workplace environments reflect— company culture and values

As businesses compete to attract and retain top talent, the office environment has become an important signifier of heritage, values and ethics. Faceless corporate workplaces are no longer viable. Buildings are now being designed with a narrative-led approach, to tell stories about the people, places and ideas behind the brand name. In real-estate terms, this could mean building a corporate headquarters that prioritises cutting-edge technology and innovation, or that reflects a radical organisational hierarchy. Alternatively, it could mean retrofitting a building with a distinct heritage, to signify values relating to sustainability and decarbonisation, or to promote connection with a surrounding community. The same rules apply to interiors. A focus on health and comfort can demonstrate a company's commitment to the long-term wellbeing of its employees, while custom-designed elements help to enhance a sense of identity and belonging.

Early-stage journey mapping – a process that brings key stakeholders into the design process – becomes a useful tool for creating spaces with meaning. Branding design also comes into play; businesses with a well-designed brand identity might allow that to tie into their interior design strategy. Rather than simply fixing a logo to the wall, integrated customisation can offer a richer understanding of the ethos that drives day-to-day decision-making.

12 Number of Internet of Things (IoT) connected devices worldwide from 2019 to 2023, with forecasts from 2022 to 2030 – Statista **/IMAGINE PROMPT:** APPLYING SENSOR TECHNOLOGY AND LINKING SMART DEVICES TO CENTRALISED CONTROL SYSTEMS WILL PLAY A CRUCIAL ROLE IN CREATING A MORE HUMAN-CENTRIC DIMENSION TO THE FUTURE OF WORK, LEVERAGING THE POWER OF AI TO MANAGE OFFICE SPACES MORE EFFECTIVELY.



DELTALIGHT

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05 Restorative spaces address mental — wellbeing and neurodiversity

An estimated 15-20% of the world's population are neurodivergent, which is to say that they experience physical environments and social situations differently from those who are neurotypical. Dyslexia, dyspraxia, attention-deficit hyperactivity disorder (ADHD) and autism spectrum condition are all examples of cognitive conditions that impact spatial perception and comfort. Neurodivergent individuals are more likely to experience stress and anxiety in crowded or noisy environments, which can significantly affect their ability to relax or focus.

The situation has been markedly improved by the increasing diversity of the workplace environment. Being able to move around within the office, or to switch between in-house and remote working, can help people find spaces that allow them to thrive. But many businesses and workplace operators are now looking to go even further, by providing dedicated spaces for concentration and/or restoration.

Coming under the banner of "quiet rooms", these are spaces where individuals can indulge in mindful activities or simply escape over-stimulation.¹³ They are designed with careful consideration to sensory perception, with lighting, colours and material finishes that promote feelings of calm and/or focus.

The benefits extend beyond those who are neurodivergent; these solutions can provide support to anyone who experiences workplace stress. Examples include dedicated craft and music rooms, allowing individuals to take time out from their work as and when they need to.

06 Ambitious retrofits become— valuable assets

The construction sector accounts for an estimated 40% of global greenhouse gas emissions, so there is greater emphasis than ever on the importance of retrofit in sustainable real-estate management. This presents a challenge for existing office buildings, many of which are unable to accommodate the diverse needs of the modern workplace without significant adaptation.

This has fuelled a shift towards more creative forms of adaptive reuse, with flexible and characterful properties in the highest demand. Some of the most groundbreaking new office developments see architects and developers take a strategic approach to redeveloping large-scale property assets, combining office space with other uses to create vibrant destinations.

Building performance is a key factor; a report by architecture firm Gensler points out the importance of energy efficiency in new buildings and retrofits alike,¹⁴ as businesses target ambitious decarbonisation goals.

Flexibility is also paramount, as investors favour buildings that are likely to retain their functionality, and subsequently their value, amid the uncertainty of changing regulations and sustainability standards.

14 Gensler Design Forecast 2024

^{13 &#}x27;Quiet rooms' are being built by companies to help employees relax and decompress on the clock – Business Insider

Six design trends to look out for

01	Biomorphic interiors
02	Opportunities for physical activity
03	Hard and soft zones
04	Design for disassembly
05	Increased sense of control
06	Experience-led amenities

/IMAGINE PROMPT: RATHER THAN JUST FILLING SPACES WITH NATURE, DESIGNERS WILL CREATE SPACES THAT MIMIC IT. SIGNATURE CHARACTERISTICS INCLUDE ORGANIC FORMS, CIRCADIAN LIGHTING AND INDOOR GARDENS. BIOMORPHIC OFFICE DESIGN THAT EMULATES THE SHAPES, COLOURS AND TEXTURES FOUND IN THE NATURAL WORLD.

01 — Biomorphic interiors

Studies have proven that being close to nature has a measurable impact on mental health. This has already fuelled a huge trend for biophilic office design, with large plants and natural materials like cork and exposed wood now a common fixture in many workspaces.

The next iteration of this will see a shift to biomorphism, with environments that emulate the shapes, colours and textures found in the natural world. Rather than just filling spaces with nature, designers will create spaces that mimic it. Signature characteristics include organic forms, circadian lighting and indoor gardens.

02 — Opportunities for physical activity

Prolonged sitting is often linked with health issues, so desks that can convert from seated to standing heights have been a welcome addition to many workplaces. The trend is set to broaden, with offices increasingly offering more places where occupants can stand, perch or lean rather than sit. The trend also extends beyond the desk. The latest annual report from hospitality company Accor revealed a growing interest in active meeting spaces – where attendees either stand or walk – and wellness-focused teambuilding activities.

PROJECT Maggie's Yorkshire

Heatherwick Studio envisioned a trio of giant planting boxes when designing this building, a cancer care facility for the Maggie's charity in Leeds, England. A prefabricated spruce timber structure gives the building a series of curved geometries that emulate the feeling of being under tree branches.



ARCHITECTURE: HEATHERWICK STUDIO PHOTOGRAPHY: HUFTON+CROW

03 - Hard and soft zones

Offices are becoming increasingly homely, but this isn't appropriate for all work activities. Workplace providers are tackling this by dividing spaces into different zones. Rather than splitting them with walls, they use subtle changes in material and colour finishes, lighting effects and acoustic qualities. By signalling different levels of comfort, these changes denote a variety of working styles and activities, and can also help to target issues such as reduced concentration or fatigue.

04 - Design for disassembly

Global concerns about sustainability have accelerated a shift towards "design for disassembly", an approach that sees interior design components made from modular parts fixed together without glue. This allows objects to be taken apart at the end of the lifecycle, making them easier to dispose of. It can also make them last longer; if individual elements become worn or broken, they can be replaced. This means that, as the needs of the workplace change, the furniture can adapt. Objects can be paired in different ways to provide new layouts and components can be switched if, for instance, a different material or textile is desired. A key benefit of this approach is that it provides scope for individual customisation.

PROJECT NUX, Melbourne

This co-working studio designed by Melbournebased Sibling Architecture suggests how workplaces can use design cues to signify behaviour. The space combines solid materials with textiles to define two distinct zones. The "soft space" is heavy on textiles, to encourage comfort and collaboration, while the "hard space" uses solid materials to create a more traditional work environment.



ARCHITECTURE: SIBLING ARCHITECTURE PHOTOGRAPHY: CHRISTINE FRANCIS

05 - Increased sense of control

As technology systems take more control of workplace environments, individuals will increasingly need to be made to feel that they have control over their surroundings, whether for reasons of comfort or task suitability.

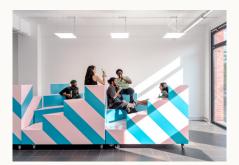
One solution is to install furniture, fittings and lighting systems that can be adjusted without impacting the wider environment. These can range from giving all individuals their own task lights to installing DIY social spaces, where furniture elements featuring lightweight materials and/or wheels can be easily moved into different locations. Acoustic control/privacy is also an important consideration.

06 — Experience-led amenities

Numerous companies used free breakfasts and lunches as a way of luring reluctant remote workers back to the office after the pandemic. Many discovered a range of benefits to introducing communal dining. As well as offering cost savings to staff, large family-style dining spaces were found to promote a sense of belonging and reduce feelings of isolation. Now, this and other types of experienceled, hospitality-style amenities are set to become commonplace. Other examples include coffee bars, yoga rooms and exhibition galleries, all with the goal of making the workplace more inviting.

PROJECT BI Lobby, Berlin

L'atelier, a studio led by French architect Pierre Escobar, installed these triangular staircases on wheels in the lobby of Berlin International University's Salzufer Strasse campus building. Students can move them into different configurations to create seating areas or exhibition stands. Bold pink and blue stripes enhance the feeling of playfulness and reference the school's visual identity.



ARCHICTURE: PIERRE ESCOBAR PHOTOGRAPHY: PHILIPP JESTER /IMAGINE PROMPT: NEURODIVERGENT INDIVIDUALS ARE MORE LIKELY TO EXPERIENCE STRESS AND ANXIETY IN CROWDED OR NOISY ENVIRONMENTS, WHICH CAN SIGNIFICANTLY AFFECT THEIR ABILITY TO RELAX OR FOCUS. INCREASED DIVERSITY OF THE WORKPLACE ENVIRONMENT CAN HELP PEOPLE FIND SPACES THAT ALLOW THEM TO THRIVE.

Interviews

We interviewed four designers who are pioneering the future workplace in different ways, across architecture, interior design, lighting and technology. Here, they reveal how industry trends are shaping their designs.

Isabel Van Haute

Architect at Coldefy

Francesco Fresa

Partner and co-founder of Piuarch

Daniel Walden

CEO and owner of a·g Licht

Filippo Lodi

Director and senior architect at UNStudio

/IMAGINE PROMPT: CO-WORKING ENLIVENS SUBURBAN NEIGHBOURHOOD. A NEW BREED OF CO-WORKING SPACE IS POPPING UP IN SMALL TOWNS AND SUBURBAN NEIGHBOURHOODS. OFFICE DEVELOPERS AND OPERATORS ARE INCREASINGLY DEMANDING COMMUNAL SPACES IN WORKPLACE BUILDINGS. IT IS ONE OF THE BIGGEST SHIFTS IMPACTING WORKPLACE DESIGN; THERE IS MORE DEMAND FOR SOCIAL INTERACTION THAN EVER BEFORE.

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Isabel Van Haute



Isabel Van Haute is a licensed architect in Belgium and a founding partner of Coldefy, with Thomas Coldefy, since 2006. Her previous experience includes positions at Richard Meier and Partners, Patrick Berger, SCAU and Agence Dominique Perrault. Coldefy develops projects at regional, national and international levels, for public and private clients, in the fields of education, culture, sport, housing, retail and urban design. Finesse, monumentality, urbanity and attention to detail compose their signature.

"If you create good working conditions, people do a better job"

Office developers are discovering the benefits of workplace buildings that support the comfort and wellbeing of occupants, says Isabel Van Haute, founding partner of French architecture and urban design practice Coldefy.

Van Haute and her Coldefy co-founder, Thomas Coldefy, have long believed in the value of social interaction in buildings where people work and study. It was a driving force behind the design of their practice's first major building, the Hong Kong Design Institute, completed in 2011. Organised around a grand public thoroughfare, this university building offered a space where staff, students and the general public could meet, share ideas and find a moment of respite. At the time it was considered radical, but Van Haute says that office developers and operators are increasingly demanding these types of communal spaces in workplace buildings. "It is one of the biggest shifts impacting workplace design; there is more demand for social interaction than ever before," she says. "It's pushing people to communicate, exchange and work together."

This increased demand for social space is one of three shifts that Van Haute has observed in workplace projects since the end of the COVID-19 pandemic. The second is flexibility – clients want buildings that can be used in different ways, to provide varying levels of comfort and functionality to occupants – while the third calls for buildings to offer opportunities for other activities, particularly sport and fitness. "When you go to offices now, there are a lot of possibilities in how you will work," she says. "It's important to create comfortable environments where people feel at home and offer flexibility for different working styles. Wellness is also a big theme." The benefits are tangible, she suggests. "If you create good working conditions, people do a better job."

According to Van Haute, these trends are fuelling the emergence of new and more diverse workplace typologies. Here, the architect talks through five Coldefy projects that explore these new approaches in different ways...

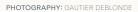
THE CREATIVE WORKSPACE Maroquinerie de la Sormonne

A far cry from the typical factory, this leather production facility for Hermès is designed to give the brand's artisans an optimal working environment. The building features an exposed timber structure, a state-of-the-art heating and cooling system and large windows that look out onto the scenic landscape of the Ardennes, northern France. "Hermès wanted to give their artisans the best working conditions, with plenty of natural light and beautiful views," says Van Haute. "The ventilation is fine-tuned so that no one ever feels the breeze on their neck and the acoustics ensure that the space feels very calm. Everything is about the wellbeing of the people working there."

THE CAMPUS WORKSPACE *Howel Wasquehal*

This office on the outskirts of Lille was designed as both the head office of real-estate developer Aventim and a co-working hub for a community of creatives and start-ups. Spread across a converted manor house and a contemporary extension, it combines workspaces with facilities that include a restaurant, a guesthouse, seminar and events spaces, and a sports park. "This project pushes the idea of diversity and flexibility," says Van Haute. "Here there are places to work, sleep, eat, drink, do sport and rest. People can work in whatever way they feel and find time for yoga lessons and events."







PHOTOGRAPHY: JULIEN LANOO

THE SOCIABLE WORKSPACE *Wonder Building*

Coldefy designed this eight-storey office building for Bagnolet, in the eastern suburbs of Paris. The building is unusual in that half of its staircases are positioned across the facade, along with a series of terraces, to create greater opportunities for staff to take a break from their work and interact with one another. "We wanted to encourage people to take the stairs more," says Van Haute. "They can meet other people and contemplate a beautiful view of Paris. It obliges them to move their bodies and reduces the use of the lifts, which saves energy."

THE MULTI-USE WORKSPACE *The Garage*

This transformation of a former Peugeot Garage in Lille was designed by Coldefy to facilitate many different uses across workspace and hospitality. The reconfigurable layout incorporates a range of facilities that invite the public in, including a gym, a FabLab, a photography studio, a restaurant, a bar and a shop. "It's one of the most hybrid projects we have," says Van Haute. "The facade completely opens, so there are no limits between public space and the interior. It's a dynamic environment that changes every month with different themes and events."







PHOTOGRAPHY: IMAGE BY COLDEFY

DELTALIGHT

THE FUTURE-PROOF WORKSPACE *Cité Administrative de Lille*

Instead of designing a single building to house the 38,000 square metres of floor space required for Lille's municipal government, Coldefy opted for a series of separate but connected blocks. It resulted in buildings that could easily be used for other purposes if the Cité Administrative's needs change in the future. "We need flexible buildings that can change use," suggests Van Haute. "If we had built a massive block, you would never be able to split it. But by dividing it into five different buildings, all grouped around a central spine, it creates more possibilities. It also meant we could create gardens in between the blocks."



PHOTOGRAPHY: PHILIPPE CHANCEL

Fransesco Fresa



Francesco Fresa is a partner and co-founder of Piuarch, an architecture and urban planning firm working on projects ranging from office, retail and hospitality buildings to the planning of housing complexes, urban renewal and regeneration. Piuarch offers a concept of contemporary architecture strongly rooted in its surroundings, respectful of the planet's resources today and in the future. Francesco Fresa is a partner at Piuarch, an architecture studio based in Milan's Brera neighbourhood, which he co-founded with Germán Fuenmayor, Gino Garbellini and Monica Tricario. Here, he explains what he and his partners learned after turning the roof of their studio into a garden and how it led them to design a factory with a huge rooftop landscape for fashion house Fendi.

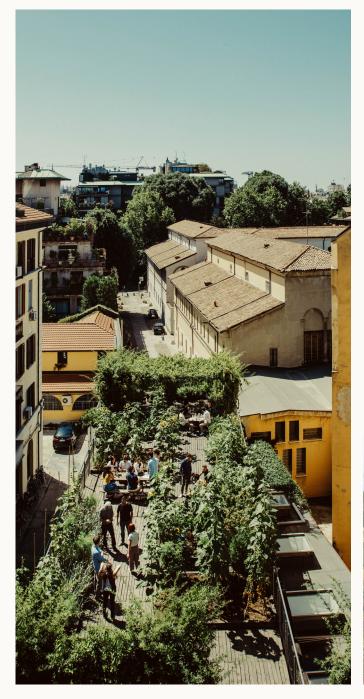
"Milan is a city with few public spaces. The courtyards used to be where people would hang out. They were once alive with activity, but as they became more private, they lost that. Our office is a twostorey building in the middle of one of these courtyards, in Brera. We have many neighbours, including a school next door, so we decided to turn our roof into a space for everyone to enjoy.

"We made a garden where we grow flowers and all kinds of fruits and vegetables. It works so well for the 50 people in our office as a place to relax, work or have meetings. Sometimes we also open it up to the community. It allows us to better connect with other people we see every day. Working in the centre of Milan, you can feel isolated from what's around you, but when you create opportunities to bring people together, that affects the work that they do. Instead of just sitting in front of a computer all day, we noticed that people were exchanging more ideas and stories.



PROJECT: PIUARCH ROOFTOP VEGETABLE GARDEN PHOTOGRAPHY: DANIELE CAVADINI

Working outdoors: the transformative power of a rooftop garden



PROJECT: PIUARCH ROOFTOP VEGETABLE GARDEN PHOTOGRAPHY: DANIELE CAVADINI

"The roof is suitable for all kinds of use. We have a pergola that provides shade and an internet connection. Sometimes we invite a client for a meeting and they stay for lunch. It feels like being in an Italian movie! We invite them up the roof and serve them salad grown in the garden. It was great during the COVID-19 period because it allowed us to safely have people back in the office. Everyone was asking to come back rather than to work from home.

"We now try to create open or green spaces in most of our projects. One example is the headquarters we are designing for Snam, the state-owned energy company, in Milan. In the middle of this building will be a glasshouse containing green spaces, terraces and meeting areas. It's an architectonic element that characterises the whole building.

"For Fendi, we designed a building where the whole roof is a garden. It's a 14,000-sqm production building in the Tuscan countryside. The client is so happy with it because it reinforces Fendi's aspirations to be more sustainable. It's a great place for people to work and Fendi is even using it for fashion shows. It shows the power of architecture to connect rather than divide."



FENDI FACTORY FOR LEATHERGOODS CAPANNUCCIA, TUSCANY © COURTESY FENDI

Daniel Walden



Daniel Walden is the CEO and owner of a g Licht. He has more than 20 years of experience with the firm, after joining in 2004 as senior lighting designer and becoming partner in 2011. Daniel has a degree in architecture from the University of Applied Sciences in Cologne and a master's degree in architectural lighting design from the HS Wismar and KTH-Syd Stockholm. He has experience in over 300 projects and has been a guest lecturer for international architectural lighting design industry events.

Workplace lighting insights "The biggest change is the technology" Advances in LED and sensor technology are enabling dynamic lighting systems that save energy, create distinct atmospheres and promote wellbeing, says Daniel Walden, CEO and owner of Cologne-based lighting design studio, a·g Licht.

What changes are affecting the design of office lighting?

"The development of the office has meant that there are new types of space. A focus on holistic wellbeing means creating environments where people can find opportunities for greater focus or to get into dialogue with others. These rooms have their own identities that are tailored to function and support it positively. They require a different visible lighting atmosphere than the traditional workplace. The lighting design must support the room and create a tangible sense of wellbeing.

Can you give an example of this?

We worked with UNStudio on the Booking.com headquarters in Amsterdam. When you move through these spaces, they feel welcoming. It's more like being in a resort; they combine a variety of free spaces with working spaces. Different rooms have their own identities in terms of dimensions, materials, texture and colours. It's not just fulfilling norms; companies are investing a lot of money in designing attractive spaces. It is still important to cover the basics in terms of good visual comfort and pleasant illumination, but we now want spaces to have more soul. It's about balancing light and shadow to create an emotional impact and promote a sense of wellbeing.



PROJECT: SAP @ THE CIRCLE, ZURICH AIRPORT **CREDITS:** © RAMSEIER & ASSOCIATES LTD.

Is this a response to the pandemic, or part of a longer-term shift? Requirements for both daylight and artificial lighting design have changed significantly in recent years, driven by the development of LED technology and our standards for integrating it into architecture. We completed a project for Deutsche Bank in Frankfurt in 2011, which was the first project where we combined traditional lighting components, like fluorescents, with LEDs. If you compare this project with some of the workspaces we have completed recently, you can see huge changes. At the HRS Group headquarters in Cologne, completed in 2017, there is much more variety. There are five floors and each is themed around a different continent, so it's like stepping into a new world. Since the pandemic, this change has been increasing. It has become more about making spaces attractive to people.

How does lighting design support this shift?

There is more variety in lighting intensity. To meet the regulations for office lighting, you typically have a fixed lux level, which results in homogeneous light distribution across a space. There are almost no areas with a visibly higher or lower lux level. Now, we're creating spaces with different intensities in terms of both lighting quality and colour temperature. LED technology has made that possible. We can add switching or dimming groups, so spaces can change between either focused or more atmospheric situations. We can also introduce human-centric lighting, which allows the artificial lighting to change over the course of a day.



PROJECT: CONTINENTAL AG HEADQUARTER, HANNOVER, GERMANY CREDITS: © WERNER HUTHMACHER

Can you explain what human-centric lighting is and how it impacts people?

Human-centric lighting, or HCL, is a new planning approach that puts people in the centre of lighting design. It refers to artificial lighting that changes in colour and temperature across the day. This approach addresses the visual, emotional and biological effects of light. It is intended to support both the visual requirement of light and the non-visual effects it has on people. Light adopts a role in the synchronisation of our day-night rhythms. We have been working on our largest-ever project with human-centric lighting, with an area of 30,000 square metres, and I am really interested to see how people will behave in these spaces.

How is lighting adapting to sustainability requirements?

The biggest change is the technology behind the lighting components. Smart technologies, sensors and mobile applications support hybrid working models and flexible working. This means that lighting controls can be responsive to office occupancy. We recently completed the Continental headquarters in Hannover, working with Ippolito Fleitz Group, which is one of our first buildings where we have linked each luminaire with a sensor that can detect heating and movement. These sensors can tell you how many people are sitting at each table and how people are moving through spaces. Do they have favourite spots? We can use this information to manage spaces more effectively, which can improve energy efficiency.

Does this mean that people using the space have no control over lighting?

It doesn't have to. Regulations stipulate that the lighting level for a desk should be 500 lux. That requires a lot of energy and can be very inefficient if you have 30 desks and only two people sitting there. A new approach, which we are doing in a lot of working spaces, is to only serve 300 lux from the ceiling and add table lamps to serve the rest. That means individuals can decide whether they need more or less light, rather than be in an environment that is completely controlled.

Filippo Lodi



Filippo Lodi is a director and senior architect at UNStudio. He leads UNSx, UNStudio's inhouse innovation think tank and experience lab that is grounded in architectural, urban and product design. This team of architects, computational designers, product designers, creative strategists, VR/AR specialists and sustainability consultants experiments with new methodologies, technologies, processes and materials to design solutions for the shared human experience.

"Prototype it, test it and learn from it"

It's impossible to plan an effective office without testing it first, argues Filippo Lodi, head of innovation and knowledge management at Dutch architecture firm UNStudio

As hybrid working cultures create a world of new possibilities in office design, Lodi believes that businesses and property operators need to adopt a trial-and-error approach to space planning. "We can't design fully fledged offices any more – what if it doesn't work?" he says. "Our advice is to prototype. You design a portion and you test it. If it works, you replicate and scale."

Lodi heads up a team at UNStudio called UNSx, which sets itself apart from other architecture and design studios through its multidisciplinary approach. UNSx designs buildings and spaces that are tailored to their inhabitants, by drawing on scientific research and data about human psychology and behaviour. "With every client, we do a thorough analysis of how they behave," explains Lodi. "We analyse the patterns and we look at what their values are, and we propose solutions based on that." According to Lodi, culture is the most important factor to consider when designing a workspace, rather than space efficiency. With the rise in hybrid working cultures, it is not always clear how to create the right mix of workspace types for a particular business. The challenge is to find a formula that brings people together in a positive way. "New working models require us to fundamentally rethink culture," he says. "You can deal with culture in many ways, which is what a lot of big companies are struggling with. I think there will be many studies on this in the next few years."

This is why Lodi believes that prototyping is the best way to approach office design. His advice to businesses is to test out different workspace typologies before implementing changes on a large scale. "You prototype it, test it and learn from it," he suggests. "You shouldn't be afraid of failing. It's better to fail before you invest millions. The more you learn, the better the fit in the end."

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UNSx uses the term "third space" to refer to the incidental spaces where people come together. UNStudio has been testing out different types of third space in its own offices. The firm is headquartered in Amsterdam but has satellite offices in Shanghai, Hong Kong, Frankfurt, Dubai, Melbourne and Austin, Texas. Most of these are located in co-working environments where staff share facilities with other creative businesses. "This is where the third space becomes interesting," says Lodi. "You have more space available in this setup for events and social gatherings, which allows you to think in more of a collective way."

Looking ahead, Lodi believes that the evolution of third space will define the way that offices are planned in future, with sensor technology playing a crucial role in measuring success. "It allows the possibility of a more human-centric dimension to the future of work," he says. However, he believes that success is only possible if the right management structures are in place. "It can't just be the furniture that changes," he adds. "You also need people to drive forward the change."



CREDITS: UNSTUDIO - NION



Hanne Van Briel

"The Al images offer an imaginative reflection of the report's themes and trends, creating a dreamworld of how our workspaces might look in the future. Using outting-edge Al tools, Hanne blends creativity and technology to push the boundaries of visual design and art. Each image starts with a spark of creativity and is meticulously refined, resulting in visuals that are both futuristic and deeply human. These images invite viewers to explore the evolution of workspaces and the interplay of technology, design, and human interaction."

Al co-created images by Hanne Van Briel, a Belgian visual artist and Al educator. Beyond creating art, Hanne Van Briel conducts workshops on visual Al tools. She has been recognized in publications such as Midjourney monthly magazine and HUG100 Artists to Watch 2024. Her artwork has been showcased in exhibitions worldwide.



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