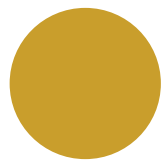


THE : FUTURE : LABORATORY

: : NESPRESSO PROFESSIONAL
: : WORKPLACE FUTURES



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Part One: Foresight Overview

The workplace is in a state of flux. Digital transformation over the past decade has fundamentally changed how people work, yet the vast majority of today's workplaces are still based on a dualistic, late 20th-century model in which rows of desks in open-plan spaces for workers sit alongside private offices for senior staff.

Yet by 2030, the workplace will have caught up with digital transformation, as office design moves towards hyper-flexibility where everything from mixed-reality interfaces to neural tools will allow us to create spaces that accommodate different needs in terms of how we collaborate, socialise or work solo.

Indeed, if the 20th century was about open-space collaborations, many ergonomists and social philosophers believe that the 21st century could be about 'closed space, loneliness', says The Future Laboratory co-founder Martin Raymond, 'as we balance multi-tasking with uni-tasking, and the joy of mucking in, or JOMI, with JOOU, or the joy of opting out, and using silence, focus and disengagement to rebuild our work capabilities in entirely different ways.'

In tandem with this, businesses will also place community at the heart of newly Communal Workplaces, with human-centric design inspiring conviviality among an increasingly fluid, diverse and multi-generational workforce, enabling workers to come together and collaborate creatively.

'The future of the workplace is a social and interactive one,' says professor Jeremy Myerson, Helen Hamlyn Chair of Design at the Royal College of Art's Helen Hamlyn Centre for Design and director

of WORKTECH Academy, a global online knowledge network exploring the future of work. 'Offices will become places where people go to have conversations, share ideas, collaborate with others and to be trained and mentored – it's very much a human landscape.'

In this report, we explore the social, cultural and technological forces that are shaping the future of the workplace, revealing the characteristics and approaches of future working environments that will satisfy and inspire the workforce of 2030. We examine:

- : The democratisation of the workplace as the boundaries between work life and personal life blur
- : How design and technological innovation will encourage different modes of work
- : The role of the workplace in fostering resilience among the workforce
- : How the future workplace will influence the public realm

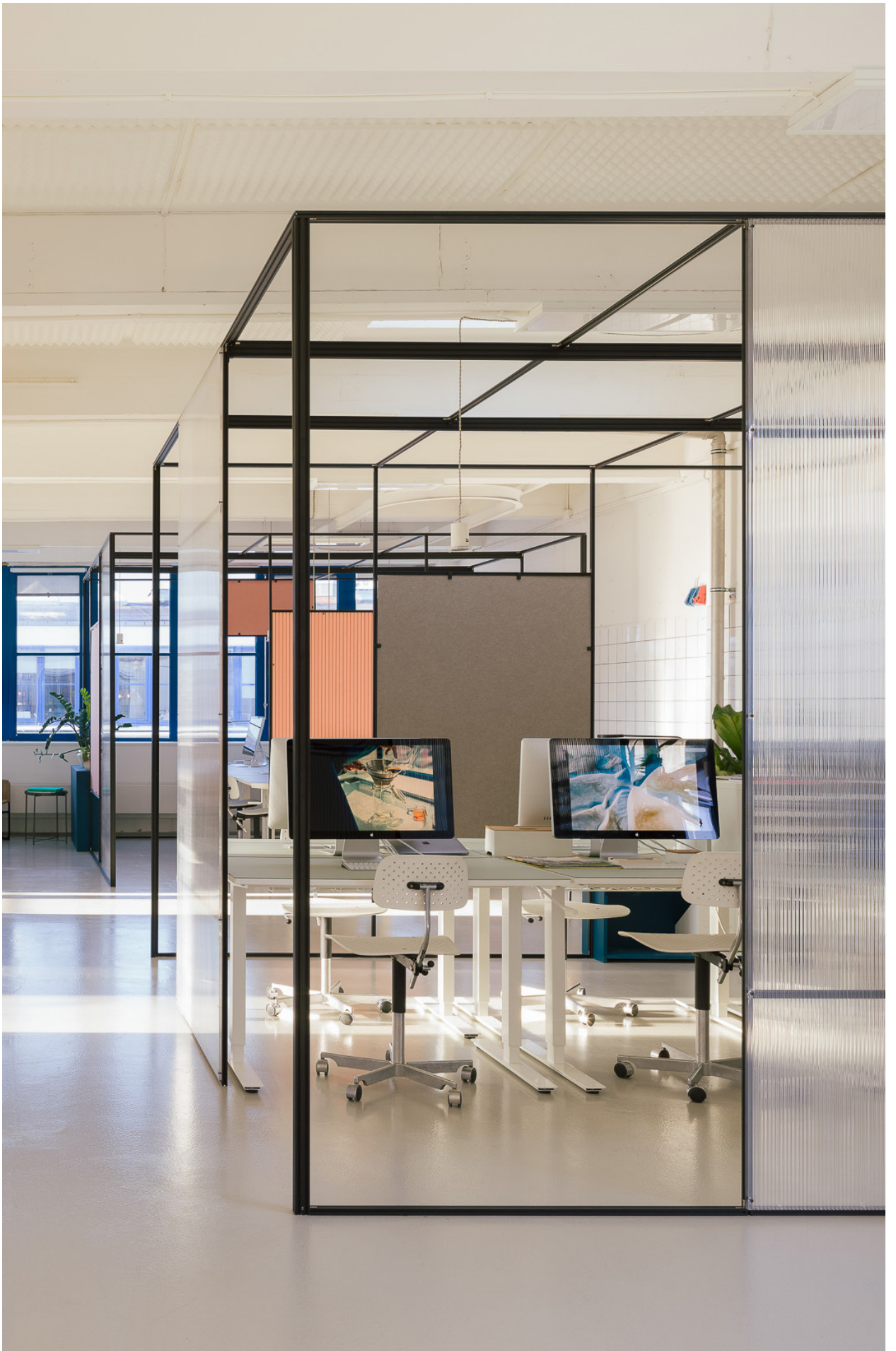
Through this analysis, we have identified the emerging trends that will shape the workplace over the next decade, inspiring new levels of conviviality, learning and productivity among tomorrow's workforce.

Part Two: The Fluid Workforce

To understand why the workplace will change so radically over the next decade, we must first explore the influential social, cultural and technological shifts happening today that are shaping how, where and why future generations will work.

For today's increasingly diverse, multi-generational and agile workforce, the workplace is becoming an extension of who they are. 'Both the workplace and who people work for now represent a growing part of people's identities,' says workplace designer Kelly Robinson. 'As a result, they must better reflect their wants, needs and desires, and facilitate their goals.'

Four consumer drivers are serving to define exactly what the workplace will reflect, leading to the creation of a newly Fluid Workforce: workers who are fluid in their identities, their approaches to work, their reasons for working and their use of workspace.



SPACE10 OFFICE DESIGNED BY SPACON AND X, PHOTOGRAPHY BY HAMPUS BERNDTSON

01. New Bricolage Living

Workers are beginning to live New Bricolage lifestyles – a multi-layered and globe-trotting existence in which they build their professional identities as they travel, work, play and explore across cities, countries and time zones.

Driven initially by Millennials – who will make up more than a third (35%) of the global workforce by 2020, according to workforce management company ManpowerGroup – a mid-decade influx of late teen and early 20something Generation Z will further transform both the demography and mindset of the workforce into one that is truly diverse and multi-faceted by 2030.

The Future Laboratory calls this tribe Location-independent Digitals, or LIDs, who are set to become some of the most influential keyboard workers ever, seeking spaces that enable both serendipitous meetings and constant collaborations, contemplation and quiet zones, as their tetherless work lives take them around the globe. Fuelled by hyper-connectivity, these world- and generation-spanning consumers expect the accommodation and services they use to be increasingly responsive, efficient and technologically advanced.

These work-life balancing nomads seek experiences that fuse together travel, business and life learning. Some 42% of LIDs see 14-day ‘workscursions’ as a standard way to travel and work on the go, with secondary breaks lasting from 31 to 60 days (23%), according to a recent New Horizons Survey. This desire to be on the move has already reshaped urban living, with the convenience of Uber, Deliveroo, Airbnb and WeWork trumping their disrupted competitors.

This Uberisation of city life is now extending to more remote destinations as LIDs carry their lifestyles with them. These young entrepreneurs and freelancers are prompting the creation of new hospitality/co-working hybrid concepts, such as ‘roamtels’ like Selina and Roam, as well as so-called ‘travel and

test’ camps like Unsettled, where ‘dreamers, entrepreneurs, creatives, artists and designers’ take time out to test an idea, develop a concept or try out a new business proposition with other collaborators in communities that pop up in Bali, Mexico City, Marrakesh, Argentina, Cape Town or Nicaragua.

The result of these concepts will be an expectation for heightened, multi-faceted working environments and experiences, at home or abroad, and in a permanent or co-working space. This will become particularly important over the coming decade, as younger generations enter the workplace, creating multi-generational workforces that will need to adapt to each other’s ways of living and working, as well as teaching and mentoring each other.

By the early 2030s, Millennials will account for about 75% of workers in the US, according to the US Bureau of Labor Statistics, while 51% of US Baby Boomers expect to work past retirement age, and a further 15% expect not to retire at all, reports the 17th annual Transamerica Retirement Survey.

It is forecast that a fifth (20.2%) of the UK population will be aged 65 and over in 2025, rising to a quarter (24.6%) in 2045, according to the Office for National Statistics (ONS). Propelled by the higher state retirement age, older workers will become increasingly urban, rejecting retirement-focused rural locations to be immersed in the Bleisure (business/leisure) bustle of towns and cities alongside their workplace peers.

‘The office has generally been a monoculture focused on young, fit men between 25 and 40 – it’s not taken into account gender, race, culture, ethnicity or neurodiversity,’ says Myerson. ‘Future workplace design must facilitate greater collaboration through spaces for mentoring, leading to upskilling, clearer communication and enhanced workplace culture.’

02. The Optimised Self

To cope with the frenetic pace of hyper-connected, always-on lifestyles, consumers are seeking ways to optimise their lives. The workforce is beginning to expect the workplace to assist in this quest for optimisation, offering them support that helps them be at their physical, mental and emotional peak.

From a £38bn market in 2017, the quest for optimisation will lead the workplace wellness market to grow to £52.2bn by 2022, according to the Global Wellness Institute, as personalisation reaches new heights and workplaces fuse hard data with emotional data to anticipate workers' holistic needs. And the impact of the workplace can't be overstated, with recent research from **Nespresso** revealing that 95% of office workers say the quality of their workspace is important to their mental health.

'Future smart workspaces will streamline the working experience for employees, enabling them to optimise their time and productivity,' says Robinson. From LIDs seeking to optimise

their productivity to seniors eager to learn new skills, The Optimised Self will soon encompass every aspect of a diverse, geographically spread and multi-generational workforce, as technology integrated within the workplace reveals the conditions for optimum employee performance based on these personal goals.

As people work longer or less structured hours in our always-on economy and with workplace burnout being recognised as a health condition by the World Health Organization, there has never been a greater need for workplace structures that support peripatetic, bricolage lifestyles. Across time zones, generations and skill sets, the workforce will need to be optimised through new models.

'Modern office culture grew out of industrialisation and the factory, and the idea of measurable productivity,' says Myerson. 'In the future, we will have to look at it – and the workforce – in a much more complex, multi-faceted and diverse way.'

03. Post-growth Society

Increasingly aware that we live in a society that cannot grow for ever, workers are devising new definitions of societal advancement that look beyond GDP growth. Instead, people will use their own metrics of success, such as wellbeing, emotional fulfilment and social good.

The seeds of this development are already visible: a recent study of Millennials by American Express found that in the US, 68% want to make a positive difference in the world, and 81% believe that a successful business needs to have a genuine purpose. Meanwhile, 78% of US, 81% of French, 74% of British and 68% of German Millennials say it is important for the values of the business they work for to match their values.

In coming of age during the turbulent and tumultuous 2010s, LIDs are a tribe that are more self-aware than self-obsessed, more virtuous than virtue-signalling. As they enter the workforce in the 2020s, workplaces will have to deliver on sets of values that will form the central thrust behind people's decisions to work in a certain career or for a certain company.

'As the line between work and personal life blurs, the workplace is becoming an extension of who people are – and companies must be value-aligned with their employees,' says Robinson. 'This alignment is now more important than ever.' This importance will increase further over the next decade, with sustainability, social impact and civic engagement at the forefront, as workplaces strive to embody the values of the people within.

Outdoor apparel company Patagonia is a key example. It only employs people who are also core product users; that is, 'people who love to spend as much time as possible in the mountains or the wild', according to founder Yvon Chouinard. As he continues on Patagonia's website: 'We can hardly continue to make the best outdoor clothing if we become primarily an 'indoor' culture.' Some 90% of the company's employees say that it's a great place to work, according to Great Place to Work.

04. The Focus Filter

Over the past half century, open-plan environments have been the de rigueur office set-up. But increasingly, as cubicle culture is replaced with collaborative spaces, designers are beginning to question the productivity levels these types of spaces offer.

While focus at work is fundamental to engendering creativity, a world increasingly buzzing with interruptions is serving to endanger it. This collateral damage of distraction culture is causing concern in the boardroom, too, as modern life suffocates the subconscious.

According to Angela Oguntala, futurist and director at Greyspace – a design and futures consultancy that works with organisations to think, plan and design for the future – the next decade will see the end of a binary approach to office design. ‘We need to create a workspace that is open and collaborative, but in the right kind of way,’ she says. ‘Employees are searching for ways to minimise distraction and have protective spaces, some of which are social and some of which aren’t.’

With the emergence of automation and artificial intelligence (AI) resulting in workers in Western Europe spending 30% more time on creative work by 2030, according to McKinsey, the multi-generational workforce will increasingly seek workspaces that strike a balance between conviviality and privacy, enabling creativity to thrive in work environments attuned to their needs.

Ikea’s innovation lab Space10 showed it is working towards this future with a recent overhaul of its Copenhagen office. The space is now home to panels that can be added or removed to change the office interior from private cubicles to an open meeting room or a semi-open shared area, giving employees greater control over what they can get out of their workspace. Space10 co-founder Simon Caspersen says: ‘We wanted to give our workers a stronger sense of ownership over their surroundings. Everyone, every day, can switch between the most ideal workspace for them, depending on their state of mind, their personality or what they are tasked to do.’

Part Three: Workplace Futures

Workplace 2030: The Communal Workplace

By 2030, the four driving forces of New Bricolage Living, The Optimised Self, Post-growth Society and The Focus Filter will have radically transformed the expectations of the workforce.

A newly Fluid Workforce will demand workplaces that at once inspire conviviality, facilitate focus, enable optimisation and embody a set of values. These different demands mean that, according to Nicola Gillen, workplace strategy global practice leader at AECOM, ‘the future workplace will continue its evolution from a single destination to a network of different spaces’.

Digital technologies lie at the heart of this transformation, with machine learning, AI and advanced AR, VR, XVR (mixed virtual reality) allowing us to toggle between locations, time zones and the collective thinking of fellow workers to identify, visualise and scenario-solve many of the complex business and social challenges to be faced over the next decade. ‘These next-generation tools aren’t just faster, they are smarter and more collaborative, allowing us to work in real time over greater distances,’ says Raymond.

Workers are looking to use the same technologies in their professional and personal lives, and this is leading businesses to create their own interfaces. For example, advertising and PR company Publicis’s Marcel AI personal assistant, like a workplace version of Amazon’s Alexa, is designed to help the company’s 80,000 employees to work together more effectively. Meanwhile, VR meeting rooms, such as Bigscreen and Rumii, are early versions of next-generation conference calling.

Beyond these technological tools, it’s impossible to talk about the future of the workplace without mentioning automation and robotics. About 1.5m workers in the UK are at high risk of losing their jobs to automation, according to the ONS. However, recent research by workplace benefits consultancy Unum and The Future Laboratory found that many workers have a positive attitude towards this automation, with

48% of UK workers believing that AI will help reduce mundane tasks and 43% thinking it will benefit their current job.

By 2030, many workers will have built symbiotic professional partnerships with the artificial intelligence and intuitive software technologies they once feared would replace them. The Robotic Modeling Assistant (RoMA) being developed by MIT and Cornell University is a good example. It brings together a variety of emerging technologies and interfaces to assist designers in creating prototypes by allowing them to sculpt in virtual reality while a robotic arm mirrors the designer’s movements in real time, 3D-printing a physical version of the design.

All these technological advances will be deployed to augment human interaction, whether in person or virtually. This will lead to an end of reliance on global corporate headquarters, business parks and city central business districts (CBDs). Companies will re-imagine these workplaces as their own Flagship Offices and a new network of different workplaces will emerge to complement them, providing workers with social, flexible and convenient spaces, from VR booths to hangout areas, in order to meet their diverse working needs.

Flagship Offices

In 2030, Flagship Offices will provide workers with a place to gather for annual all-hands meetings, impactful presentations and social events, acting as a central hub in which a Fluid Workforce can come together.

The Fluid Workforce will be drawn to new workplaces that increasingly represent part of their identity and an extension of their own selves, as the line between work lives and personal lives continues to blur. People will place greater value on the physical world. WeWork’s 2019 Global Impact Report illustrates how this future is already coming to fruition, with 1 in 10 WeWork members having moved closer to their WeWork location since joining.

As we begin to live, play and work in the same spaces, a focus on human interaction and the fostering of community will become integral to the success of the future workplace. ‘The digital revolution is reshaping how we live and work every day, yet the role of people – specifically the workforce – is becoming ever more important,’ says Gillen. ‘Putting people at the centre of design and decision-making is key to delivering the right environment to optimise creativity, innovation and productivity. Human interaction and engagement must remain the focus to support new working and new concepts for the workplace.’

Over the next decade, this fundamental community focus will form the common thread running through future workplaces, from flagship destinations to entirely new working concepts, as the era of the Communal Workplace evolves.

‘Workplaces will become spaces for people to experience community and to gather,’ says workplace designer Robinson, while pointing to the role that social rituals will play in engineering this sense of community. ‘Something like

a coffee break is ritualistic, spans every continent and is inherently human, enabling people to come together and connect.’

AI integration in the workplace will further heighten the importance of community, with the technology taking over the mundane, low-value aspects of work, leaving people free to do what they do best – tasks that require human-to-human interaction, collaboration and creativity.

Businesses that embrace this approach stand to benefit from greater productivity, as well as a happier workforce. A recent joint study between the Institute for Corporate Productivity (i4cp) and Rob Cross, Edward A Madden, professor of global business at Babson College, revealed that companies that promote collaborative working are five times as likely to be high-performing.

In this report, we identify and explore four key tenets of the future Communal Workplace and the new working concepts it will inspire: Hospitality Ethos, Multimodal Design, Resilience Culture and Civic Purpose.



ROMA BY MIT AND CORNELL UNIVERSITY

01. Hospitality Ethos

Over the next decade, designers and architects will create hospitality-inspired workspaces that bolster workers' expectations of convenience while satisfying their innate human desire to feel part of, and identify with, a community.

'In the workplace now that there is a growing collision – a bleeding edge – between workspace and hospitality space,' says professor Myerson. This collision has stemmed from the democratising impact of technology on the Fluid Workforce's ability to work effectively wherever they are, rendering the idea that a person must be at his or her desk in order to work a thing of the past and fragmenting the workplace into myriad spaces.

'We're moving towards a much more social landscape in which offices begin to look like hotel lobbies or retail malls,' continues Myerson. 'Hospitality, generosity and conviviality – often based around food, drink and social activities – are going to be very important anchors in how these spaces are managed.'

The rise of co-working spaces represents the beginning of this development, as the Fluid Workforce flock to shared, flexible environments that emphasise community, creativity and convenience. Their growing popularity is undeniable: according to research from commercial real estate firm JLL, co-working spaces in the US have grown at an average rate of 23% per year since 2010, while the Global Coworking Unconference Conference (GCUC) estimates that the number of global co-working members will reach 5.1m by 2022.

Over the next decade, these spaces will filter out from capital cities and business districts and become increasingly localised, causing co-working to evolve into Lo-co Working.

Perth business My Hustle, which turns small bars into casual weekday co-working spaces, is one example of what this Lo-co Working future might look like. Its first location enables

Lo-co Workspaces

In a more fluid, flexible and localised evolution of today's co-working spaces, found on local high streets as much as urban centres, Lo-co Workspaces will facilitate everything from collaborative projects to private, siloed work. By 2030, Lo-co Workspaces will be dotted up and down local high streets, sitting both alongside and inside stores and cafés too, providing the Fluid Workforce with flexible, community-based working solutions.

workers to choose between private booths or high communal tables while enjoying free wi-fi, unlimited coffee and tea, and discounts at surrounding businesses.

Being based around conviviality, the bleeding edge between workspace and hospitality space is a natural one and will inspire a new wave of hospitality-focused brands to develop their own co-working spaces, as a new workplace phenomenon emerges: the Worktel.

Worktels

Representing the hybridisation of the office and the hotel, the Worktel is a space for people to work, play – and to stay. Socially focused lobby spaces equipped with flexible workstations will sit alongside areas designed for impromptu team huddles and fully private rooms, enabling all kinds of work to occur. Hospitality will run throughout these spaces, providing workers with food and drink options throughout the day, and thought-provoking entertainment in the evenings.

Hotel-chain The Hoxton, for instance, recently launched Working From_, a co-working space with a hotel in the US, and is set to open another location in Southwark that will be home to over 700 desks across seven floors, interspersed with meeting rooms, kitchens and hotel rooms. In creating Working From_, The Hoxton is formalising consumer behaviour that has been occurring for the past few years.

‘We have always kind of been in co-working, it’s not actually a new part of the business for us,’ says The Hoxton chief marketing officer Martina Luger. ‘Our lobbies were getting busier and busier, and when we looked at our spaces, what people were demanding was more focus, more dedication and more facilities.’

Naturally, these spaces will become increasingly high-tech over the next decade. ‘Technology is going to make the workplace experience much more frictionless,’ says Myerson. ‘Through biometrics and facial recognition, workers will be welcomed into buildings and allowed to enter private areas seamlessly, while workplace apps will be able to suggest meetings with fellow employees working on similar projects.’

But as well as being high-tech, they will also be high-touch, with a service-led approach – rather than a facilities-led one – increasingly embraced by companies seeking to cater for the needs of a Fluid Workforce.

Workplace designer Robinson points to Israel’s co-working space Mommy Work as a future-facing example of this approach. ‘The space is designed for mothers to bring in their children and receive some support with childcare while enabling them to work – a hugely important service as the line between personal life and work life continues to blur.’

Other big names in co-working are working on services designed specifically around children, too. Popular women’s social club and co-working space The Wing announced in late 2018 that it would introduce childcare and family programming. With this initiative, the female-centric collective hopes to further disentangle women from the stereotypes and time-worn barriers of working motherhood.

By 2030, these services will encompass every member of the Fluid Workforce. ‘If employers don’t begin treating employees as customers, providing high standards of customer – or

Work Dorms

Dormitory-style community work spaces will enable people to work and live together for a time to solve a specific problem, or tackle results-oriented, project-based challenges. Core units of workers will be complemented by specialists who move from project to project, hired by employers for their specific skills and temperaments, resembling something not unlike today’s movie sets. ‘It will be akin to the Hollywood production model,’ says Myerson, ‘where employers bring specialised people in for a particular, short-term project.’

employee – care, then people will simply bring in their own services and create their own ‘shadow’ workplace,’ says Myerson. ‘As a result, the provision of services is fundamental, from top-quality catering to the most innovative of amenities.’ LIDs, for example, will seek mentoring hubs where they can share skills and develop their entrepreneurial mindsets.

The ultimate realisation of the hospitality ethos integral to the future workplace will result in the creation of a workplace that caters for every aspect of living – spaces that we’ve termed Work Dorms.

Conviviality and community will naturally sit at the heart of these spaces, enabling the creation of connections between employees, fostering collaboration and creativity – the *raison d’être* of the Hospitality Ethos.

02. Multimodal Design

By 2030, workspaces will be designed and built to satisfy the multi-faceted identities of tomorrow's Fluid Workforce, with spaces to suit different needs, from co-working and collaboration to socialising, creativity, even neurodiversity and private research.

'If you think of the workplace as a community, or a small city, you need to facilitate all kinds of experiences because humans are complex,' says Robinson. 'We all have different ranges of emotions and needs, and the most future-facing workplaces will accommodate the full human spectrum.'

A recent study from file-sharing company WeTransfer highlights this complexity. Its research revealed that 65% of creative people need quiet to do their best work, which means that a significant 35% don't. No other preference was shared by a majority, from a neat tidy space (32%) and coffee (32%) to sunshine (30%).

The consistent emergence of similar data has served to shed light on the deficiencies of open-plan offices, which will prove too binary a solution for an increasingly Fluid Workforce. A recent survey by Harvard University, for instance, showed that after shifting to an open-plan office, employees spent 73% less time in face-to-face interactions, with use of email and instant messenger rising by 67% and 75%, respectively – the exact opposite of the approach's intentions.

Research from **Nespresso** brings into focus how detrimental this can be, revealing that 82% of office employees surveyed agreed that face-to-face interactions are critical to developing good working relationships. Almost half (48%), meanwhile, complained that new technology was getting in the way of getting to know their colleagues properly.

'The reality is that unless the open-plan [workplace] is well thought out, with a high degree of segmentation of different tasks and a high degree of choice for the individual, then

it can have a negative impact,' says Myerson. 'A simple, low-choice, open-plan environment with an ocean of desks is not good for communication or team-working.'

As a result, flexibility will become a prerequisite of future workspaces. The ability of employees to take their devices anywhere and work will make the length of time spent working in any one location less important than the ability to do it comfortably wherever they want. While buildings will largely remain permanent, their interiors will be fully reconfigurable, with modular meeting room concepts enabling employees to construct their own ideal spaces with varying levels of privacy to suit their needs.

Furniture in these spaces will become similarly adaptable. Herman Miller's Tim Wallace-designed Memo work system, for example, is designed to help companies be more agile, with an adaptable desk structure relevant to the way people work today and how they will choose to work in the future. Benches, integrated or free-standing meeting tables, project tables and storage units can be added to create a variety of mixed spaces, with a basic desk serving as an efficient platform to create different kinds of spaces so people can choose whatever place best suits their task. Partition screens, meanwhile, can also be used to divide zones and create privacy.

As we move through the next decade, this ability to adapt spaces to fit workers' moods or favourite modes of working will become in-built in future workspaces, which will begin to resemble neighbourhoods and latterly mini-cities, home to closed-plan concepts as well as open, social spaces. 'In the future, designing a workspace should really be thought of as more like building a town or a city than an office,' says AECOM's Gillen.

The return of closed-plan design and booth culture is already under way, with solo-work pods like those from designer Henrik Kjellberg of o4i Design Studio growing in popularity. His

PodBooth concept, built by Nordic brand Martela, can easily be rolled between different locations, providing privacy wherever it is sought.

Furniture manufacturer Into the Nordic Silence, meanwhile, has created a number of pod-like products, including Pod Phone, a pod for taking telephone calls, and Point Cup, a curved meeting area with high, padded walls upholstered in a soft fabric that blocks surrounding sound. The brand has also created Cube Solo, a single seat that envelops the worker.

‘The trend for pod rooms is accelerating all the time,’ says Johanna Kettunen, COO of Into the Nordic Silence. ‘The reason is that so many companies have open-plan offices and there are not enough support spaces in those offices, so people are not able to concentrate on their work tasks.’

But we mustn’t forget the obvious, says Itai Palti, director of The Centre for Conscious Design: that our levels of creativity are inextricably linked with the design of a building itself, and increasingly architects and interior designers are looking to boost creativity per square foot as much as they are trying to link it with productivity.

‘When we think about places that inspire creativity, we shouldn’t be thinking about stationary design, but rather dynamic,’ he says. It’s about the temporal experience of moving from different kinds of spaces, being drawn to external stimuli, but also having the time to let our minds wander. The cognitive journey that we require to enhance our creativity in the office is built of a number of different types of spatial experiences. It’s possible to think of it as a curated experience in the same way that film weaves a narrative to elicit an emotional state.’ Yet how many people curate their office spaces in this way?

Indeed, members of pop-up community The House of Beautiful Business, of which Palti is one, believe that future workplaces need to go one step further and make clearer connections

between a place being beautiful, creative and edifying, and understand how and why this makes it more appealing to humans.

‘Organisations will increasingly need to support their workforce with their efforts to innovate,’ believes Palti. ‘Leaders such as Google and Apple are building brands that incorporate within them the type of working conditions their employees receive, partly because of the growing understanding that our surroundings have a huge role to play in our productivity.’

However, a science-based solution to architecture is, he believes, pointing at a stark difference between current architectural solutions – for example, Apple’s Spaceship campus – and the complex conditions that are more likely to support human creativity.

‘The architecture profession is yet to form an evidence-based approach to creating future-proofed workplaces that will stay relevant well into the fourth industrial revolution. Yet, if we pay attention to knowledge coming in from psychology and neuroscience and use it to inform how we design, we’d be on the right path.’

The Future Laboratory’s Raymond agrees, suggesting that in the workplace of the future we’ll need to take these concepts a stage further – from ‘the workplace beautiful’, as he puts it, to the workplace that is neurologically diverse.

‘Diversity enhances creativity, especially across race, gender and social lines. But research is also coming through that suggests neurodiversity as well as social diversity is part of this process. About 20% of UK entrepreneurs are dyslexic. Similarly, many people with autism, ADHD or epilepsy can find that their very difference is an advantage if neurodivergencies are embraced effectively.’

But as Raymond points out, while we think about design for physical accessibility, the future workplace will also consider cognitive accessibility as a key priority.

‘Office design tomorrow will consider how noise, overly aggressive visual patterns, bright lights, even busy open-plan areas with repetitive gridding or layouts, can be hugely impairing to neurodivergent employees. So the push towards closed spaces, low lighting, noise-cancelling materials, quiet zones and the rise of focused work styles will make the workplace even more welcoming for a group that remain invisible merely because their challenges are neurological rather than physiological.’

Alongside closed and open spaces with these creative threads running through them, future workplaces will also need to be home to everything in between. ‘Culturally, we have accepted the need for breaks and sociability, alongside private spaces,’ says Greyspace’s Oguntala. ‘But we also need to create space that is partly open but also partly affords limited privacy – translucent areas that account for the blurry space in between.’

Sentient Spaces

Able to respond to their inhabitants, Sentient Spaces will be home to smart systems that seamlessly alter the indoor environment to optimise workers’ performance, sharpen their focus and encourage conviviality.

In this future, even liminal spaces – the stairwells, corridors and basements – in the workplace could be dynamically adapted for private work, impromptu meetings or social events, giving once underused spaces myriad purposes.

Beyond design, future smart technologies will soon be harnessed by workplaces in order to provide personalised environments that can be altered seamlessly from one mode to another. It’s already something the workforce expects. Research from Aruba Networks reveals that



POD ROOMS BY INTO THE NORDIC SILENCE

almost three quarters (72%) of people think the future workplace should automatically adjust and update itself.

‘The building is going to know who’s in there, with a data lake of past preferences of what people want in terms of environmental features,’ says Myerson, with offices evolving into Sentient Spaces. ‘When you go into a meeting room, it will immediately adapt to a worker’s light, temperature and even furniture configuration preferences, based on their exact needs.’

Mediated Atmosphere, a project by the Responsive Environments group at the MIT Media Lab, is designed to enhance both wellbeing and productivity in the workplace by improving the workplace atmosphere at an individual level. Using modular, real-time control infrastructure with biosignal sensors that track heart rates and facial expressions, Mediated Atmosphere creates immersive environments through controllable lighting, projection and sound designed to help users work comfortably, with the concept self-regulating on the basis of the user’s activities and physiology.

In the social spaces so integral to the future workplace, meanwhile, technology will alter environments to encourage and inspire conviviality. According to Robinson, to cater for a globe-spanning Fluid Workforce, these environments will embrace concepts that are innately human. ‘If you can aim for the universal, you can transcend cultural barriers and boundaries, making for powerfully convivial spaces,’ she says. ‘Food, nature and music are all universal languages that future workspaces can use to remind us of our humanity.’

Companies that embrace these concepts – using technology to urge workers to take breaks in social spaces and encourage conviviality – are likely to experience a boost in productivity. Recent research from ComRes, for example, demonstrates the impact social spaces can have on overall efficiency, with two thirds of workers (67%) feeling more productive after a coffee break.

03. Resilience Culture

Over the next decade, as personal dissatisfaction, anxiety and burnout remain prominent among the workforce, workplaces will be re-imagined as centres of resilience.

According to the American Psychiatric Association, 39% of US adults felt more anxious in 2018 than the previous year, while in the UK, 85% of adults experience stress regularly, according to digital healthcare specialist Forth. 'At a time when a lot of people are experiencing greater pressures and austerity, there's a need for both resilience and a pathway for building it,' says Chris Johnstone, author of *Seven Ways to Build Resilience*. With this challenge in mind, future workspaces will be designed to help consumers break out of their mental and physical cocooning to fully embrace resilience.

As a natural extension of wellness culture, much of the workplace's role in facilitating resilience will centre around the optimisation of people's physical, mental and emotional wellbeing.

For Greyspace's Oguntala, the foundations of the future workplace will centre on spaces that enable this, with pause points and dwell areas increasingly vital. 'If we are psychologically and physically broken as people then little else matters,' she says. 'As a result, addressing burnout is going to be one of the biggest drivers for companies in the future. Pause points and dwell areas have a big role to play and should be a central focus when designing new spaces.'

With research from ComRes revealing that three quarters of workers (75%) agree that having high-quality coffee available in their office suggests their employer cares about their wellbeing, these dwell areas and pause points play an important part in creating a culture of resilience.

Beyond dwell areas and social spaces, in the next decade biophilic design will also be integrated into offices, forming another key characteristic of resilient workspaces.

Biophilic Design

Biophilic Design focuses on humans' innate attraction to nature and natural processes. In the workplace, it's about mimicking the environments we find in nature in offices – across all five senses – enabling the reduction of stress, blood pressure levels and heart rates, while increasing productivity, creativity and self-reported rates of wellbeing.

'A common misconception is that biophilic design translates to adding lots of plant life and shrubbery; it is far more complex than that,' says Chris Alldred, a design director at K2 Space, a London-based office design company. 'There are a multitude of possibilities including maximising natural light, using colour and incorporating a mix of natural materials within the workplace and, of course, introducing plants and features like green or living walls.'

The trend for embracing biophilic design has already captured the imagination of some of the world's largest companies. At the start of 2018, Amazon's Seattle HQ opened the Spheres, three huge glass domes that contain 4,000 square feet of space and more than 40,000 plants, including a diverse range of flora from more than 30 countries, while Microsoft built three tree house workspaces in the 500 acres of woodland that surround the company's Redmond HQ.

Myerson, meanwhile, points to audio pioneer Plantronics' Habitat Soundscaping technology as the next step forward for this kind of design. 'Plantronics is using both sound and visual cues to create a biophilic environment,' he says. Its service uses nature-inspired audio and visuals, coupled with intelligent software, to create an immersive, peaceful experience that leaves people feeling energised.

According to Alldred, 'biophilic design is becoming more important as the prevalence of stress-related illness at work increases'. And recent research confirms how this kind of design can benefit individuals' resilience. A study in

North America from Harvard Business Review revealed that 47% of employees feel tired or very tired due to an absence of natural light at work, while 43% feel gloomy for the same reason.

As we move through the next decade, other technology-based future-facing innovations created explicitly to provide resilience will also enter the workplace. Innovative start-ups like Wisdom Labs are already seeking to solve stress and anxiety in the workplace through practices such as mindfulness, emotional regulation and compassion, while its app, Wise@Work, helps users experiencing feelings of self-doubt or frustration by providing them with practical advice and support mechanisms.

By 2030, these resilience-focused workplace apps will be increasingly advanced, encompassing the latest technologies. According to Parneet Pal, chief science officer at Wisdom Labs, nanotechnology will be among them, integrating resilience seamlessly into people's lives. 'Our future workforce could have nanotechnology sensors in their blood that keep track of their biomolecules and give them real-time feedback on their hormone levels and other stress indicators,' says Pal. 'This feedback will automatically remind them, via their devices, that they need to eat or take some exercise or meditate. Sensors will also be integrated into their working schedules, getting to know their working patterns and making tailored recommendations accordingly.'

As well as workplace apps, the return of booth culture will be harnessed to provide workers with more than privacy, with places to relax, unwind and centre themselves. Co-working company Uncommon's latest flexible workspace, designed with a focus on health and wellbeing, is home to an interactive light installation that future workers might find inside anti-stress booths.

Created by designer and artist Marcus Lyall, In a Heartbeat showcases a worker's heart rate through music and light after he or she

places a finger into a Blood Volume Flow Sensor. The installation works out the heart rate and variability, an indicator of stress levels, with corresponding visuals designed to take a worker away from the everyday business of work life.

By 2030, installations like In a Heartbeat will have a permanent home in the workplace, as businesses create VR-based imagination rooms that enable employees to escape to other-worldly environments. 'Immersive technologies like VR and AR will be harnessed as both creativity-boosters and a place for people to centre themselves,' says Kevin Empey, founder of WorkMatters, a leadership and organisation development consulting firm.

Beyond design and innovation, the re-imagining of the workplace as a centre for resilience will also welcome the adoption of new, holistic approaches to work, with Slo-working key among them.

Slo-working

Slo-working is the deliberate deceleration of the pace of work to discourage burnout. The rise of Slo-working is further cementing the importance of social spaces and pause points in the future workplace, providing workers with the places they need to slow down, switch off, communicate with colleagues and improve communication.

'We've pushed up against so many things as a society and now people are renegotiating,' says Oguntala. 'When it comes to the workplace, while people will still believe in the dream of the hustle, we'll also see a growing segment redefine the speed at which they work, slowing down in order to protect their own health.' And the wellbeing benefits of this approach are significant, with ComRes research revealing that four in five workers (82%) who ever take coffee breaks at work during the day feel that they help them relieve stress.



IN A HEARTBEAT BY MARCUS LYALL



04. Civic Purpose

By 2030, future workspaces will shape the surrounding public realm, stepping in to serve and support others where government or local authorities are failing to help, as the workplace becomes the front line for businesses' CSR efforts.

Amid increasingly divisive political landscapes and global inequality, consumer trust in major institutions is suffering. Just one in five (20%) of people globally now believe the system is working for them, according to the 2019 Edelman Trust Barometer.

At the same time, the Fluid Workforce increasingly expect the companies they work for to provide more than a desk and a salary. 'There needs to be purpose in work, a broader meaning and communities of practice,' says professor Myerson. 'Employee motivations are changing, and people need to feel they are doing something worthwhile.'

A recent survey from Deloitte of more than 10,000 Millennial workers across 36 countries illustrates the necessity of this action. According to the survey, Millennials who work in large, private-sector organisations have lost even more faith in the ethics of these organisations over the past year, with a decrease of 17 percentage points in the number of respondents who believe that businesses behave in an ethical manner and an increase of 16 percentage points in Millennials who believe their companies focus on their own agendas rather than considering society in general.

'Businesses need to identify ways in which they can positively impact the communities they work in, and focus on issues like diversity, inclusion and flexibility if they want to earn the trust and loyalty of Millennial and Generation Z workers,' says Punit Renjen, CEO of Deloitte Global.

Engendering this trust and loyalty can boost productivity. Mercer's recent 2018 Global

Work Malls

These former retail spaces, which by 2030 will be widely known as Work Malls, will offer meeting, exhibition and co-working spaces for the wider community, utilising underused spaces or temporary sites for inspiring, collaborative working that contributes positively to society.

Talent Trends report found that 75% of employees who consider themselves to be thriving say their company has a strong sense of purpose that resonates with their personal values.

With this in mind, in the next decade the workplace will play an increasingly civic role in society as it becomes the front line for companies' CSR efforts. 'The office is the largest canvas upon which organisations can communicate their values and what they stand for, and the future workplace will absolutely be value-led,' says Gillen. 'Energy companies, for instance, will focus on sustainability, while healthcare industries will create people-centric environments.'

Part of this shift towards civic purpose will emanate from the mixed-use spaces that the future workplace will consist of, as the workplace evolves into a new civically suited social landscape with permeable features. Home to public walk-throughs, restaurants and galleries, 'the workplace will blend into wider mixed-use communities,' says Myerson.

The beginnings of this mixed-use future are already under way, as co-working companies move into new areas like retail. The We Company, for instance, recently opened a store and public workspace in New York. The Made by We retail space, café and workplace in the Flatiron neighbourhood can be used by anyone without the need for a membership, offering individual workstations and meeting rooms alongside a retail space that sells products from laptop cases to stationery.

Over the next decade, these kinds of workplaces will be taken one step further, with newly redundant spaces like shopping malls transformed into co-working hubs as a means of reinvigorating local communities, welcoming a new age of the Work Mall.

Architectural firms SPPARC and Heatherwick Studio's renovation of Olympia London in West Kensington is shedding light on what the ultimate realisation of future civic purpose will look like. Due to open in 2023, the refurbishment will include new offices alongside restaurants, hotels, theatres, music venues and gyms. Offices will be based on the ground floor and connected to Olympia London's exhibition halls, while an elevated public space will feature on the building's roof, including a square and garden, and cultural, food and fitness venues. These will lead to an elevated streetscape that visitors walk across, mirroring a ground-level environment while giving them a skyline view of London.

The hybrid building will serve both employees at London Olympia and the local community, creating a cultural centre that makes work more enjoyable for employees by offering them lunchtime and after-work activities, with modular and adaptable venues to accommodate changing leisure trends.

For AECOM's Gillen, serendipitous interaction will be key to bringing people together in these large, mixed-use spaces. 'There will be a significant provision of kitchen and lounge spaces, providing people with places to get great food and coffee. Staircases, meanwhile, will be positioned to connect people face to face rather than see them disappear into lifts.'

As well as benefitting from the space and activities on offer, these future workplaces will power the acquisition of knowledge for employees and local residents alike, with life-long learning at the forefront of workers' minds.

This change will mean multi-purpose buildings will cater for whole communities, rather

than only the people who work there, as the workplace becomes a true Civic Hub. 'There will be a move against trapping employees in buildings,' says Simon Allford, director at AHMM. 'In the future, offices might have a school on the roof with a playground and apartments below. Buildings will become a microcosm of the city.'

An educative civic role will be made necessary by an ageing population. Recent data from Willis Towers Watson showed that almost a third of British workers now expect to be employed after their 70th birthday, up from only 17% in 2010. As a result, life-long learning will be required to enhance social inclusion and personal development, facilitating portfolio careers. But it will also be a phenomenon driven by LIDs, eager to upskill and apply new knowledge to their own entrepreneurial efforts, learning from older workers through mentor-style relationships.

Civic Hubs

Home to both public and private spaces, Civic Hubs will cater for the needs of both employees and local citizens, providing people with spaces to work, learn and come together as a community.

'A new learning mindset will enable workers across different generations to remain personally agile, developing new skills for future use,' says WorkMatters' Empey. 'This will also drive agility in businesses too, as they find themselves able to benefit from this desire to upskill.'

Workplace apps like EduMe will kick-start this development, enabling companies to offer employees effective micro-learning content that builds knowledge retention and helps them upskill. LinkedIn's 2018 Workplace Learning Report found that 94% of employees would stay longer with a company that invested in their career.

‘It’s more important than ever to be able to disseminate information because things are moving so quickly,’ says Jacob Waern, founder and CEO of EduMe. ‘We’re building a lot more into our learning algorithms to offer a training programme that is tailored to you, and which will help you to learn more and to learn more effectively.’

Engineering giant Honeywell, meanwhile, has developed tools that use AR, VR and AI to capture the experience of work and extract lessons from it that can be passed on to new employees, allowing them to experience the challenges of their role through VR.

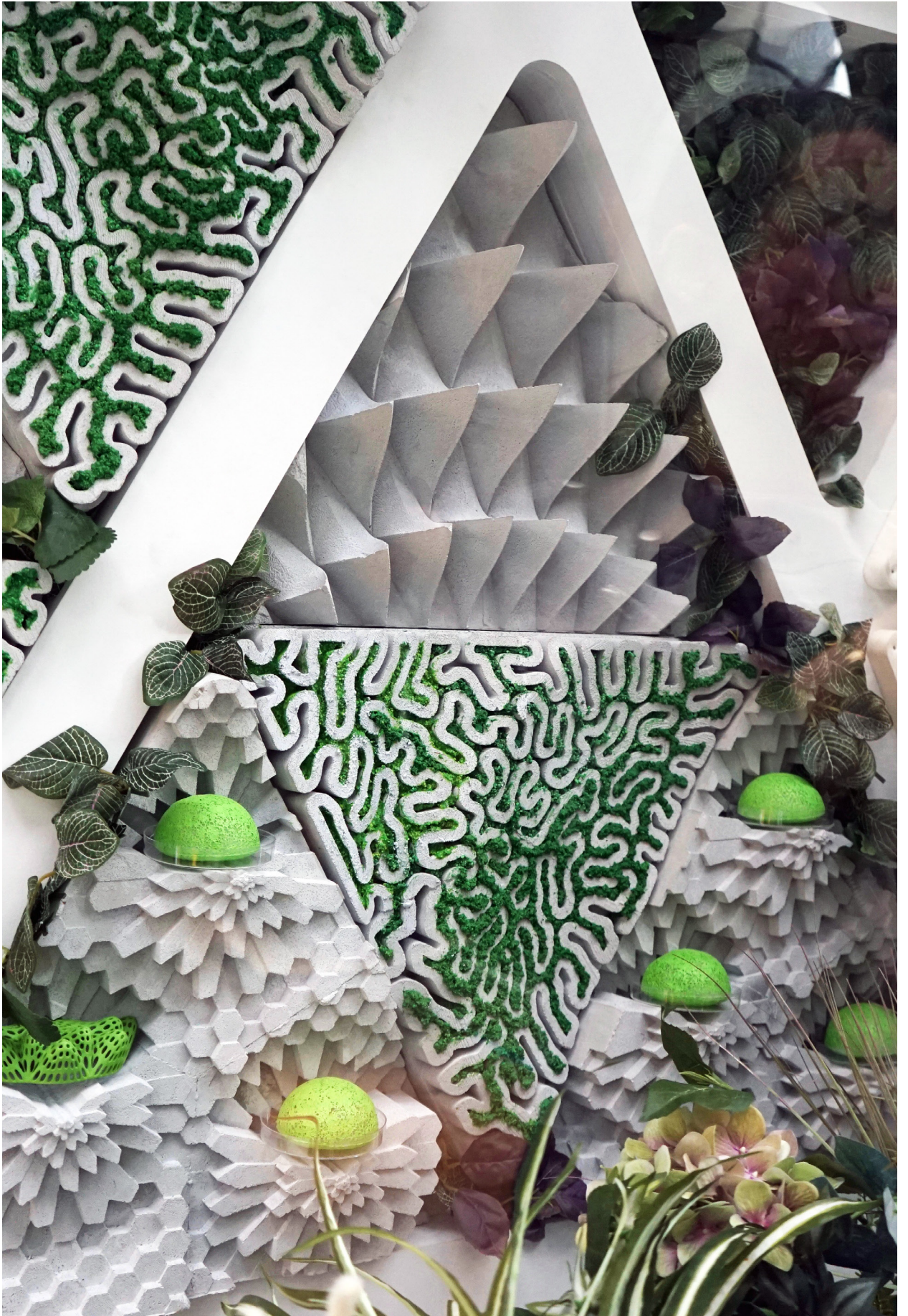
When looking to reskill or upskill workers, however, the Fluid Workforce itself could provide the most effective solution. Recent US research from educational technology company Degreed revealed that 55% of workers go to their peers first when they want to learn a new skill. Accessible classrooms, quiet zones, library spaces and collaborative amphitheatres where ideas can come to life will help upskill workers and provide mentoring spaces as a multi-generational workforce come together to learn from each other – further demonstrating how integral community and conviviality will be to the future workplace.

Beyond giving back to employees and citizens, workplaces that embrace a civic purpose will also look to give back to local environments, with a focus on sustainability evolving into a focus on regenerative design. ‘Workplaces will embrace regenerative design, moving away from this idea of: ‘We’re going to stop doing the bad stuff’ to a much more holistic idea of the workplace as an actor in the world and as intricately connected to nature and local communities,’ says Greyspace’s Oguntala.

In New York, non-profit-making architecture and urban design firm Terreform One has designed an eight-storey building set to achieve exactly this, with its façade doubling as a wildlife habitat. From offices inside, workers

will be able to look out into a terrarium attached to the wall, a climate-controlled space where suspended milkweed vines and flowers support monarch butterflies through their lifecycle. Tiles that are 3D-printed from carbon-sequestering concrete will give the insects places to land, while a roof garden and terrace will be filled with pollinator-friendly plants.

‘Our vision was to create a very green, passive building that would be a positive contribution to the community,’ says Andrew Kriss, vice-president of Kenmare Continental Equities Group, the developmental firm set to build the project. ‘We saw this as something that could help redefine SoHo, redefine the consumer experience, and give to the community in ways that buildings have not done.’



TERREFORM ONE, NEW YORK

Part Four: Conclusion

By 2030, the era of the Communal Workplace will be in full swing, as businesses harness the four key concepts of Hospitality Ethos, Multimodal Design, Resilience Culture and Civic Purpose.

In this future, an inherent focus on community will run throughout the workplace network, from urban Flagship Destinations to Lo-co Working Spaces, enabling a diverse, multi-dimensional and multi-generational Fluid Workforce to switch seamlessly between co-working, collaboration, socialising and private research.

In newly service-led spaces, workplace design and technologies will facilitate the myriad working needs of workers, while at the same time helping to optimise their physical and emotional well-being. These workspaces will also give back to communities, as the adoption of civically minded initiatives become integral for companies to attract value-led talent.

According to Angela Oguntula, future workplaces that embrace these concepts will improve society as a whole. 'There's a polarisation in the way that we currently live, but workspace design and work culture can work against this by building spaces for commonality and shared understanding,' she says. 'Employers have a huge responsibility in creating a workspace that is kind, good and sustainable, but at the same time productive and pushes performance.'

Over the next decade, this responsibility will be fully embraced by the most future-facing companies, with the power of good workplace design and innovation having a positive impact on the wellbeing, productivity and morale of a workforce who increasingly see the workplace as an extension of themselves.

Appendices

- : Manpower Group's Millennials Careers: 2020 Vision
- : Global Wellness Institute – Global Wellness Industry Statistics & Facts
- : **Nespresso** / One Poll Survey 2019
- : American Express – Millennials Plan to Redefine the C-Suite
- : McKinsey – Where machines could replace humans—and where they can't (yet)
- : WeWork Global Impact Report 2019
- : I4cp – Purposeful Collaboration
- : JLL – Coworking's unstoppable market growth
- : 2018 Global Coworking Forecast
- : The Drum - The Hoxton Hotel officially enters the co-working space with new brand
- : WeTransfer Ideas Report 2018
- : Research Digest – Open-plan offices drive down face-to-face interactions and increase use of email
- : Dezeen – "Get rid of the open-plan office" says Space10 co-founder Simon Caspersen
- : Dezeen – Wellbeing fuels trend for healthy office furniture at Stockholm Furniture Fair
- : Aruba Networks – The Right Technologies Unlock the Potential of the Digital Workplace
- : **Nespresso** / ComRes - Coffee In The Workplace, 2017
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- : Harvard Business Review – The #1 Office Perk? Natural Light
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- : Harvard Business Review – How to Help Your Employees Learn from Each Other



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: : WORKPLACE FUTURES

