

As we move through the crisis, it is Vitra's commitment to provide the latest insights and learning to ensure a safe return to the next normal for the spaces we work in, live in and travel through. We draw on the knowledge of our network of thought leaders, experts, scientists, designers, architects, customers and on our own findings gained from the implementations with our partners and clients, in our own showrooms and workplaces and on the Vitra Campus. The long-term implications of the crisis for our environments are still unknown, but we learn more every day. Our papers are continually updated to share the most recent findings. You can find the current versions at vitra.com/nextnormal.

We have expected a lot from our homes over the past months. In the process of retreating to them as a safe haven, they had to function as our offices and schools, playgrounds and gyms, restaurants and cinemas. We will continue to spend more time at home: remote working is here to stay, at least for the time being. Most likely, it will remain an ongoing option for most companies, and it will probably be years before travel reaches anything close to pre-pandemic levels.

At this point we must design domestic spaces that accommodate more aspects of our lives. Moreover, the extraordinary changes we have made to our routines over the last few months call for reinvention. We need to explore ways to maximise the use of limited spaces, to generate a sense of safety and make room for individual preferences. Developing the multifunctional home of the future is a challenge shared by designers, architects and manufacturers. In this issue we convey our insights on the new dynamics of the home along with the thoughts of designers and experts, including the writer Kyle Chayka, who explores how the current crisis has tested long-standing architectural assumptions, the designer llse Crawford, who considers the future of the home in the post-pandemic era, and architectural historian Beatriz Colomina, who addresses the expanding role of the bed. All this, along with examples of new spatial layouts and planning files.

Nora Fehlbaum CEO, Vitra

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A space for new possibilities

To ensure the safety of the public, many governments have resorted to measures that have limited the use of offices and public spaces. This has resulted in a quarantine of several weeks and sometimes even months for many countries, which made the home the main protagonist of the crisis by becoming the only place where we could be while protecting ourselves and others from infection. During this time we learned that we can do almost everything from the confined space of our four walls. We can work, shop, exercise, learn, meet, attend a concert and even celebrate while quarantining.

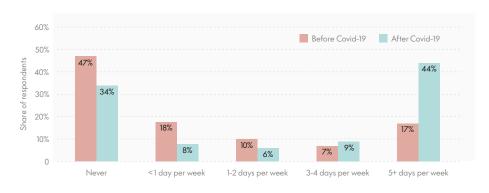
The health crisis provided a reminder of the home's central function in times of crisis and the need for private spaces flexible enough to become a bunker. While most people could not wait to leave their four walls, the past months allowed individuals to discover just how many tools are available today. The global health crisis has led to a mass experiment in remote working enabled by digital communication technologies that – for the most part and for a limited time – was successful for both companies and employees.



Remote working is here to stay

The impact of technology on facilitating working from home has been studied for over a decade. What was predicted by Alan Kiron, a staff scientist at the US patent office in 1969, is finally happening: 'dominetics' have taken over. The term describes a combination of domicile, connections and electronics. Due to the pandemic, the number of daily active users of Microsoft Teams, Microsoft's digital communication tool for businesses, have more than doubled in only a few months, increasing from 32 million users mid-March 2020 to 75 million as of the end of April 2020, while Zoom grew its number of daily users from 10 million in December 2019 to a record of 200 million daily users in March 2020.





Source: Statista, consulted at https://www.statista.com/statistics/1122987/ change-in-remote-work-trends-after-covid-in-usa/ on 14 August 2020

While people are realising the benefit of foregoing gruelling commutes and travel, companies are seeing the potential savings in expensive real estate and maintenance cost for office space. Peter Drucker already in 1993 declared commuting to the office obsolete: 'It is now infinitely easier, cheaper and faster to do what the 19th century could not do: move information, and with it office work, to where the people are. The tools to do so are already here: the telephone, two-way video, electronic mail, the fax machine, the personal computer, the modem, and so on.'

A study conducted by the Swiss Trade Association (SGV), found that while working hours dropped by 10% in Switzerland due to short-time work measures during the first quarter of 2020, GDP sank by just 2.6%. Conclusively, remote work allowed employees to be more focused and flexible, which translated to a productivity jump of up to 16%.



Social and psychological challenges of remote working

Remote work, we learned, can function, but is often psychologically and socially challenging. Psychologists, computer scientists and neuroscientists noticed that distortions and delays inherent in video communication can lead to feelings of isolation, anxiety and disconnection.

'Our brains are prediction generators, and when there are delays or the facial expressions are frozen or out of sync, as happens on Zoom and Skype, we perceive it as a prediction error that needs to be fixed', says Paula Niedenthal, a professor of psychology at the University of Wisconsin-Madison who specialises in affective response. 'Whether subconscious or conscious, we're having to do more work because aspects of our predictions are not being confirmed, and that can get exhausting.'

After this forced experiment, remote working will remain an option for many employees and most companies, as exemplified by tech companies like Twitter and Facebook. 'We need to do this in a way that's thoughtful and responsible, so we're going to do this in a measured way. But I think that it's possible that over the next five to 10 years – maybe closer to 10 than five, but somewhere in that range – I think we could get to about half of the company working remotely permanently', Mark Zuckerberg told his employees back in May 2020. In order to retain talent, companies will look for flexible working models allowing for more part time work, less travel or commuting. Allowing for regular remote work can make a company a more attractive employer. Some companies, like the tech giant Google, will provide their staff with a professional home office setup including paying for the extra square meters the home office takes up in the talents' homes.

If remote working becomes a long-term option, the spaces we dedicate to working in our homes will also have to adapt. Spaces that in the past were dedicated to specific purposes, such as the kitchen, the dining room or even the bedroom, as Beatriz Colomina observes, are now being re-purposed as available workspace. Ilse Crawford describes later in this paper how this experiment has taught us that separate rooms with doors and room dividers make a lot of sense. In general, the flexibility is welcome, but it is important to remember that sitting in one place for a long time is as much of a health hazard at home as it is in the workplace. A good task chair, one that promotes an optimal sitting position while injecting dynamism into your domestic work routine, is the cornerstone of a functional home office.



New rules for the homebound

The time in guarantine and the related intense use of our residences may have unveiled their shortcomings. How often do we live with a sub-optimal compromise or spontaneous purchase for years, because we simply got used to it? Has your intended home office turned into a storage space over the years? We have now spent enough time in our home to understand our personal preferences better and can make an informed decision on how to best put the available space to use. We may choose to adapt the layout of our living room to include a home working corner because the light and acoustics are best there. We may decide to give up on owning a sofa because it takes up too much space and watching television has long been transferred to streaming while lying in bed anyway.

With more time spent at home and greater emphasis on our personal lives, more investment will go into optimising and personalising this space. The peak of the health crisis in Western Europe coincided with a period of continuous good, warm weather. Contemplating the 'great indoors' has also started to make consumers think about how to create a space that mimics attributes of the great outdoors.



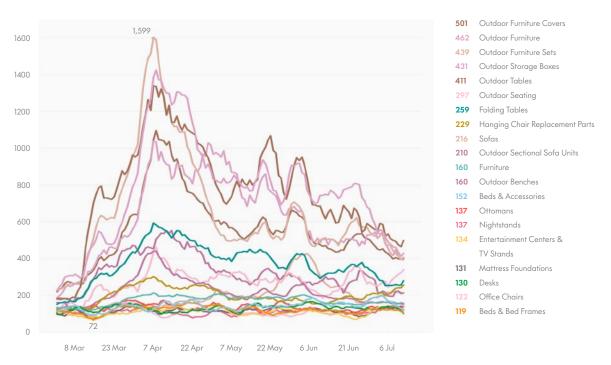
Opportunities in the online economy

Consumers lucky enough to have their own outdoor spaces have been readying them for social distancing at home as the weather warms up. Yards, patios and gardens are getting decked out with things like folding chairs, stools and tables, outdoor tables, seating and furniture covers. Accordingly online sales of outdoor furniture skyrocketed during the crisis in the United Kingdom (+1908%) and Germany (+956%), and also rose significantly in the US (+428%) and France (+303%). In South Korea, outdoor seating sales climbed +167%. With limited budgets and space, instead of purchasing outdoor-only furniture, people may acquire chairs and tables that can transition from interior to exterior, i.e. indoor objects that can be safely utilised outdoors.

In future, the way we buy furniture will change. We have learned to shop for almost everything online. Before the coronavirus hit, consumers already did significant online research before buying a piece of furniture. Now online consultation via video, simple digital planning tools, configuration options and renderings will make customers feel safe and confident enough to finalise their purchases online. Especially for customers in high risk groups, retailers will be challenged to provide personalised service to stay relevant. Products may be brought to customers' homes for testing and making on-site purchasing decisions.

Online sales in outdoor furniture from March to July 2020 in Germany

Average index during reference period



Source : Criteo, https://www.criteo.com/insights/coronavirus-shopping-trends/, consulted on 14 August 2020





Safe haven aesthetics

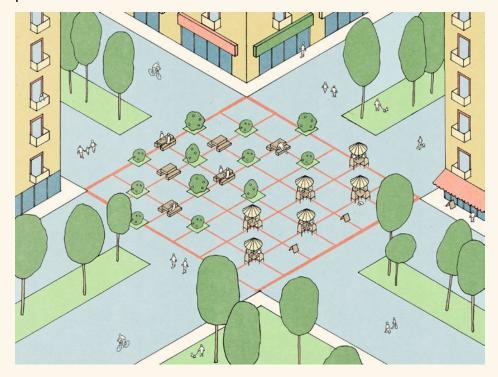
The past months have also fundamentally challenged the use of public spaces. Places where people convene were closed due to risk of infection. As they reopen, requirements for remaining open are being imposed, such as strict occupancy limitations, regular disinfection and cleaning, etc. As a result, the aesthetics of these spaces are changing, with an increasing emphasis on health and safety. They will become easier to clean, airier, more open – modern, transparent architecture and interiors will prevail. In the past, the aesthetics of interior design was strongly influenced by the design of public spaces. In the article 'How the Coronavirus will re-shape architecture', featured later in this paper, writer Kyle Chayka draws parallels between the development of modernist architecture and the choice of colours and design of hospitals to combat widespread tuberculosis in the 1920s and 1930s.

The health crisis has shown us that we are safe in our homes without any governmental measures, and our domestic space should signal that. With a hostile environment outside, we long for nature at home more than ever, integrating live plants, animals or their artistic depictions in our interiors. Here we can and want to live with softness, textiles, density, older, less shiny objects and a deeply personal touch. Comfort is the guiding principle. Some regions of the world are attempting to control a second wave of infections through apps that track our movements outside of our homes and notify the contacts with whom we have interacted. While we might be willing to reveal the information on our whereabouts to avoid another lockdown, we will have to debate how far that surveillance should go. One thing is for sure: it must end at our own doorstep. Home interiors will likely become denser and less open, with more nooks and crannies. Objects that provide protection will find their way into homes, embracing and shielding the user from the outside world. As the aesthetic of public spaces changes, in the home we will see the continuing rise of 'natural' materials with depth and patina, such as wools, woods and knits.



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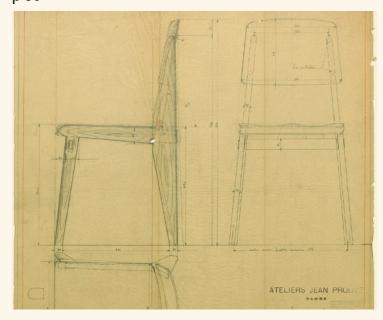
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When material scarcity sparks innovation An anecdote by Catherine Prouvé

What spaces are we willing to live and work in now?



An essay by Kyle Chayka Illustrations by Emma Roulette In 1933, the Finnish architect and designer Hugo Alvar Henrik Aalto, along with his first wife, Aino, completed the Paimio Sanatorium, a facility for the treatment of tuberculosis in southwest Finland. The building is rigidly geometric, with long walls of expansive windows wrapping its façade, light-colored rooms, and a wide roof terrace with railings like the ones on cruise ships - all the hallmarks of what we now know as modernist architecture, which emerged in the twenties from the work of the Bauhaus, in Germany, and Le Corbusier, in France. But the Aaltos' choices of material and design weren't just aesthetically fashionable.

'The main purpose of the building is to function as a medical instrument,' Hugo would later write. Tuberculosis was one of the early twentieth century's most pressing health concerns; each element of the Paimio was conceived to promote recovery from the disease. 'The room design is determined by the depleted strength of the patient, reclining in his bed,' Aalto explained. 'The color of the ceiling is chosen for quietness, the light sources are outside of the patient's field of vision, the heating is oriented toward the patient's feet.' (The combination of cold feet and a feverish head was seen as a symptom of the disease.) Broad daylight from the windows as well as the terraces, where patients could sleep, was part of the treatment, as sun had been proved effective at killing tuberculosis bacteria. At the sanatorium, the architecture itself was part of the cure.

Much of modernist architecture can be understood as a consequence of the fear of disease, a desire to eradicate dark rooms and dusty corners where bacteria lurk. Le Corbusier lifted his houses off the humid ground to avoid contamination. Adolf Loos's ultra-boxy Villa Müller in Prague, from 1930, included a separate space in which to quarantine sick children. Architects collaborated with progressive doctors to build other sanatoriums across Europe. 'Tuberculosis helped make modern architecture modern,' the Princeton professor Beatriz Colomina writes in her revisionary history 'X-Ray Architecture.' The industrialized austerity of Ludwig Mies van der

Rohe or Marcel Breuer 'is unambiguously that of the hospital,' the empty white walls, bare floors, and clean metal fixtures are all 'surfaces that, as it were, demonstrate their cleanliness.' As extreme as the aesthetic of modernist architecture seemed in the early twentieth century, people could at least be reassured that it was safe. A character in Thomas Mann's novella 'Tristan,' from 1903, described a 'long, white, rectilinear' sanatorium for lung patients: 'This brightness and hardness, this cold, austere simplicity and reserved strength... has upon me the ultimate effect of an inward purification and rebirth.' A tuberculosis vaccine began to be used on humans in 1921, but the association between modernism and good health stuck; the austere sanatoriums were marketed as palliatives for mental illnesses, too. In recent months, we have arrived at a new juncture of disease and architecture, where fear of contamination again controls what kinds of spaces we want to be in. As tuberculosis shaped modernism, so COVID-19 and our collective experience of staying inside for months on end will influence architecture's near future.

During quarantine, 'we are asked to be inside our own little cells,' Colomina told me when I called her recently at her apartment, in downtown Manhattan. 'The enemy is in the street, in public spaces, in mass transit. The houses are presumably the safe space.' The problem is, the modernist aesthetic has become shorthand for good taste, rehashed by West Elm and minimalist life-style influencers; our homes and offices have been designed as so many blank, empty boxes. 'We've gone,' Colomina said, 'from hospital architecture to living in a place like a hospital,' and suddenly, in the pandemic, that template seems less useful.

Unlike the airy, pristine emptiness of modernism, the space needed for quarantine is primarily defensive, with taped lines and plexiglass walls segmenting the outside world into zones of socially distanced safety. Wide-open spaces are best avoided. Barriers are our friends. Stores and offices will have to be reformatted in order to reopen, our spatial routines fundamentally changed. And, at home, we might find ourselves longing for a few more walls and dark corners.

DOMESTIC SPACE

Quarantine makes all nonessential workers more intimately acquainted with the confines of their homes. We know everything about them, especially their flaws: the lack of daylight in one room, the dirty floor in another, the need for an extra bathroom. Space is all we have to think about. For architects, it's a soul-searching exercise, especially if you happen to live in a home you outfitted for yourself.

The architect Koray Duman lives with his partner and their sixteen-month-old child in an apartment he designed, in the Lower East Side. Quarantine has led them to grow exhausted with the things they keep in the space, even though - with the exception of toddler accessories - they are relatively few. 'You look at every detail of things. They limit you. If you have less you feel like you are more free, in a weird way,' Duman told me. Sustained scrutiny can breed discontent. Over the past two months, 'interior designers got very busy,' he said. 'People are, like, 'I hate this space.' Spending so long in one place might require an environment that can change more freely so that we don't get bored. Usually a wall is static; 'I don't know that that's necessary,' Duman said. 'If it was on wheels, imagine how much fun you would have.'

Florian Idenburg and Jing Liu, a couple and the principals of the firm SO-IL – which has designed art museums, housing developments, and pop-up projects like the tent for the Frieze Art Fair – have been staying in their home, near the Brooklyn Navy Yard, with their two young daughters. It's a bright white-walled duplex with open-plan common spaces. 'Luckily, both our girls have their own rooms with thick doors,' Idenburg said. The arrangement comes in handy when the children have video-chat school sessions at the same time. Acoustic divisions have become more important while the family is crammed in together all day long, Idenburg noted. 'The loft, the New York City typology, seems to be not the romantic thing at the moment. Everyone's on Zoom calls.' A lack of privacy or the chance to move to a different room is harder to bear when bars, cafés, and stores can't offer an escape.

Confronting the limits of their own home has made Idenburg and Liu rethink how they approach designing spaces for clients. 'We don't necessarily see this as the end of the world; we should not overreact,' Idenburg said. 'But, subconsciously, people will really take it into account as they assess their home in the future.' Seeing any new space, in the midst of the pandemic, we quickly imagine what it would be like to be trapped there for months. During quarantine, SO-IL has been designing a residential project in Brooklyn with thirty units in a twelve-story building. They updated the apartment schematics to reflect pandemic anxiety: the kitchen, the dining room, and the living room are all separable instead of flowing together; the bedrooms are spaced apart, for better acoustic buffering as workspaces, and include more square footage for desks; and the architects are aiming for thirty per cent exterior space, with varied outdoor options. 'It's the importance of being able to get out,' Idenburg said. 'Not just to cheer health-care workers but also be outside of the ecosystem for a little bit.'

Interior design reflects what we think represents an ideal of domesticity. From Versailles to President Trump's baroquely gilded penthouse in Trump Tower, it is a mirror for the anxieties of a moment. 'Each age demands its own form,' the Bauhaus architect Hannes Meyer wrote in his 1926 essay, 'The New World.' 'Ideally and in its elementary design our house is a living machine.' In the twentieth century, Meyer argued, 'architecture has ceased to be an agency continuing the growth of tradition or an embodiment of emotion.' It was instead to be cold, functionalist, efficient. The same year, he arranged a single ideal room, which he called the Co-op Interieur, for the modern worker, envisioning not just an individual dwelling place but a template for an entire civilization. It was a bare box that held a cot, a gramophone on a table, a small shelf, and two chairs that could be folded up and moved. The whole assemblage was endlessly scalable and mobile, fit for the sweeping wave of technological globalization that Meyer observed in his essay. It's also the last place you would want to be quarantined.

Architects have long been preoccupied with the concept of 'existence minimum' or 'the minimum dwelling,' as the critic Karel Teige titled his 1932 book. Teige proposed, to solve housing shortages, 'for each



adult man or woman, a minimal but adequate independent, habitable room.' The idea got an update with the Japanese Metabolist movement in the nineteen-sixties, which envisioned buildings that would expand and contract based on the needs of a city. Tokyo's Nakagin Capsule Tower, by Kisho Kurokawa, one of Metabolism's few built structures, is a series of individual boxes set around central spires, each containing what one person needs to live, at least for a brief period: a circular window, a television, a stereo, a desk, a bed, shared showers. The grand vision didn't pan out; today, Nakagin is under constant threat of demolition, and the apartments now exist more as works of art.

Existence minimum has been on the mind of Paola Antonelli, a senior curator at the Museum of Modern Art's department of architecture and design. On March 13th, she was called into the museum with the rest of the curatorial staff and given a few hours to pack all the books she needed for two months. Ever since, she's been in her apartment, relying on a tripod for Zoom calls, a yoga mat for exercise, and

excursions outside on Citi Bikes. Existence minimum suggests the least you need to feel comfortable in a space. For twenty-first-century city dwellers, that quantity has expanded over time, from Meyer's bed, chairs, and phonograph to the mobile suite of accessories we carried with us everywhere prepandemic, as on a commute: headphones, smartphone, laptop, charging cords. Together, it formed a kind of 'existence maximum': as much as possible in as small a space as possible. 'I have a bubble of personal space that is metaphysical, that is bigger than the physical space around me,' Antonelli said. 'I can be squeezed in a subway car and I still have my world.'

Neither existence minimum nor existence maximum quite works at the moment. Personal spaces need to be both virtually connected and physically enriching even in the midst of social distancing - not the clean, white, anonymous smoothness of contemporary minimalist modernism but a textured hideaway, like an animal's den, full of reminders that the rest of the world still exists, that things were once normal and might be again. We have to be able to hibernate.

There's no place like home

The Domestic New Deal



© Helen Cathcart

Six insights by Ilse Crawford

Reassessing the home post-lockdown following weeks of 24/7 occupation, Ilse Crawford argues that there is a new appreciation for the home and its contributions to our wellbeing. Its location, the kinds of spaces it offers and the materials used in our interiors all play their part. At its best, a home is a haven with both comfortable, quiet work settings and ample room for our multifaceted downtime, all created from hygienic yet pleasantly tactile materials. Above all, it is a place that allows us to reap the benefits of life's simplest pleasures. Historically our homes have been slow to change, yet, just as the pandemics of the late Victorian era gave rise to modernism, so the current crisis could prompt a domestic revolution.

As we emerge, blinking into the post-lockdown world, many of us are reflecting on the homes where we have been hidden away for the past months. It has been a vast social experiment, revealing that we must focus on our homes as places we consciously and actively inhabit rather than just fall into at the end of a busy day or week, without concern for their impact on our physical and mental health. Lockdown has taught us a great deal about how homes can function – or not – as places where we are able to both live and work, with others or on our own. Going forward there will be a renewed interest in our living spaces. Many of us – those lucky enough to have a half decent one – are seeing them in a whole new light.

The context of living in one place 24/7 for months at a time has brought us down to earth. We have had a chance to focus on what works, and what really doesn't. To test our priorities and our design choices. And we have discovered unexpected simple pleasures. Fundamentally we have had a chance to realise how the things we live with and the spaces we live in change us. They change the way we feel, change how we behave and change how we connect with each other. And we have seen how they can affect our wellbeing.

Bottom line, if we apply the learnings about making spaces work well during lockdown, not only will they be more resilient in the face of any future lockdowns, which unfortunately do seem probable

- but they will also be good to be in all the time. Not least because it seems like from here on, for the white collar worker work is home and home is work, at least for part of the time. Those in tech-based industries have already laid their cards on the table. Shopify's Tobi Lutke announced that their new reality will be 'digital by default' (aka work from home). By 2021 'most will permanently work remotely. Office centricity is over.' He went on to say, 'We've always had some people work remote, but they used the internet as a bridge to the office. This will reverse now.' Facebook and Twitter and many in the financial industries have similar strategies. But it goes beyond tech, way beyond tech. Around the world millions of square feet of office space are apparently being offloaded as masses of leases are cancelled. Is this it? Is the office facing extinction? We have to wait for the dust to settle and see what happens, but it certainly looks like WFH is here to stay.



Ilse Crawford installation in the VitraHaus loft, 2014

1 Moving out of the centre

In the UK there is already a detectable rush to the suburbs by those who realise that flatshares, tiny urban flats or homes without gardens are just not tenable for families in the face of a pandemic, and not necessary in a future where many of us will work from home at least some of the time. There is also much discussion around requirements for future urban housing. The attraction of local neighbourhoods over city centres is on the rise. (At the same time property prices in central London are plummeting, with the latest data suggesting declines of 8–18 percent.)

Access to green space features highly on people's wish lists and is becoming a non-negotiable criterion, along with balconies and shared courtyard spaces, bike storage and allotments.

2 Back to the cave

How will the lessons from lockdown translate into our interiors? While many of the insights are practical in nature, one major takeaway is that the home has been reinstated as our emotional heartland. It is personal, intimate, a safe place and more like a highly functioning cave. For all the focus on hand sanitiser and physical distancing in the outside world, once we are home and have washed off the dirt and detritus of the outside world, we are free to be human again. Home is an antidote to the stress of the outside world, more closely connected to our true selves and our daily rhythms.



Ilse Crawford installation in the VitraHaus loft, 2014

Working from home

One major practical realisation is that individual rooms make a lot of sense, and are a lot more adaptable than one-room living, or kitchen-living rooms. Working from home day in and day out, for example, was tough for many of us, especially for those living in shared spaces with family or friends. But now we have a more realistic understanding of how living space actually functions for work. When doing VCs all day, rooms with doors start to seem a lot more important. Soundproofed too if possible. As does consciously planning the backdrop – just how much do you want to communicate of what is going on at home, how neutral, how groomed, how professional, how 'completely relaxed'? Plus when you spend much of the day online, the comfort of that small spot is of primary importance. Ergonomics no longer sounds like a bore after a day in front of our screens. The kitchen table works for a while, but having a desk at the correct height and a proper chair makes all

the difference in the world. (On our evening walks in the park, it seemed that we had all turned into hunchbacks.) Getting lighting right matters too, for task-based work but also for video calls. And is a lot more flattering. (Smart companies are giving employees money to make sure they are technically and practically on point.) Home schooling has also been extremely challenging. For the lucky ones, a set-up in a spare room has worked. For those living in a single shared space, lightweight, easy-to-move tables are workable - but again good chairs and good lighting are invaluable.

4 Downtime

At the same time we have recognised how important proper downtime is - the things we do to frame the working day and to prevent one day from blurring into another (not just collapsing on the sofa in front of the TV). To facilitate this our homes need to be adaptable and loose, with spaces that morph easily from one activity to another, from online exercise classes, to online lectures and adult learning, to supper time and movie night. We have discovered the joy of lightweight, easily movable 'everything furniture' and ideally not too much of it.

5 (Extra)ordinary

Staying home has also meant that many of us have rediscovered the satisfying pleasures of the ordinary and have realised how simple things can matter. Reading books (the refreshing tactility and absence of backlighting after hours of screen time). Gardening, even on a balcony. Taking care of our clothes. Baking. And cooking as an essential way to stay healthy and bring pleasure to our lives. (Apparently during lockdown we ate smaller meals and threw away less, because we paid more attention, and cooked with what we had on hand.)

There is likely to be a greater focus on how to make these ordinary activities more enjoyable and not frustrating, with more consideration given to the tools and associated storage. A good reading light, a comfortable chair for reading. A place to keep your gardening kit outside. Sufficient storage for ingredients and extra equipment for cooking, so you can store what you need and find what you need when you need it. Even repurposing a space as a larder/

utility area if possible. It is said that to be properly functional, 15% of any living space should be storage, although it is always the first thing to be eliminated when space is tight.



Refettorio Felix community kitchen, dining hall and drop-in centre in the former St Cuthbert's Centre in West London, designed by Studioilse, © Tom Mannion

6 Health and cleanliness

And finally our health and wellbeing, personal and systemic. Starting with the obvious. Cleanliness. This is a practice rather than an aesthetic, but what has become a priority in the current situation could become the basis for better habits that would serve us well in the future. As in the Middle East, India and Asia, the ideal home would have an entry area where we can leave our shoes. Ideally we would have a sink near the door to wash our hands and masks. And a spacious utility cupboard for all our newly acquired cleaning equipment.

Once past the threshold and inside our homes. we don't need to become unduly obsessive, but easily cleanable surfaces, and those with anti-bacterial and anti-microbial properties (e.g. cork, copper, brass etc.) are obviously going to become more appealing. It's not always obvious who the good guys are. If you look at the science (such as the New England Journal of Medicine), plastic, glass and steel are the materials that keep the coronavirus alive for the longest time – it might live for 96 hours on glass, while it only survives for 4 hours on copper – so again it's the habit of cleaning rather than the optics that is important here. What's more, we are increasingly in thrall to what Naomi Klein calls the 'Screen New Deal'. She speaks compellingly about a world entirely mediated by

technology, where we are working online, shopping online, learning online, meeting our doctors online, doing our fitness online. We will be badly touch deprived, so a focus on the physical qualities of our homes must be a priority.

The toxicity of our homes will also come into focus. Air pollution is increasingly cited as a contributor to weakened immune systems. (This is pollution not just from the outside but also from paint, textiles, gas and candles made with petroleum wax.) Tap water also has varying degrees of toxicity, usually from old pipes. Hence water and air filtration systems make sense, and open windows for through-ventilation (providing you don't live too near a busy road). And textiles. So many of our textiles are chemically processed; bleached, dyed, finished etc. It's good to check the details – even if it is currently not so easy – and buy from trusted sustainable sources.

The home is historically one of the slowest areas to change – but dramatic social change such as the one we are currently experiencing can accelerate that process. And the choices we make now in an intermediary and post-pandemic future will shift us towards a different reality. After all, aesthetics is not only about the way things look. Rather it is a medium where values are made visible, so that our material and immaterial world reflects the concerns of a particular moment in time, and mutates to make sense of them.

Design can be an agent in this process of change and is always responsive to social and cultural changes. The Bauhaus movement in Germany, for example, was exactly that. It was a response to the late-Victorian pandemics; a response to the dirty industrialised cities. It basically set out to invent this fresh, light, clean, new reality. So in a funny way we've come almost full circle.

Now 100 years later, at a time when we are focused on environmental responsibility, to marry this imperative with a more humane, more realistic, more liveable perspective on design seems like a win-win.



The bed in the age of COVID-19

Uncovering a new workplace



Keystone-SDA / Magnum Photos / Burt Glinn

An essay by Beatriz Colomina

Architectural historian Beatriz Colomina, who is based at Princeton University, has been researching the increasing popularity of the bed as a place of work since 2004. The current health crisis, she writes, has further fuelled this development. The symbol of intimacy is transforming into a piece of public furniture – and thus influences our relationship to conventional public space.

Already in 2012, The Wall Street Journal reported that 80 per cent of young New York City professionals work regularly from bed. Millions of dispersed beds were said to be taking over the function of densely occupied office buildings, as networked electronic technologies removed any limits to what could be done in bed.

It is not just that the bed/office has been made possible by new media. Rather, new media is designed to extend a hone hundred-year-old dream of domestic connectivity to millions of people. The city has moved into the bed. Industrialisation brought with it the eighthour shift and the radical separation between the home and office/factory, rest and work, night and day. Post-industrialisation collapses work back into the home and takes it further into the bedroom and into the bed itself.

This philosophy was already embodied in the figure of Hugh Hefner, who famously almost never left his bed, let alone his house. He literally relocated his office to his bed in 1960 when he moved into the Playboy Mansion at 1340 North State Parkway in Chicago, turning it into the epicentre of a global empire and his silk pyjamas and dressing gown into his business attire 'I don't go out of the house at all! I am a contemporary recluse', he told Tom Wolfe, guessing that the last time he was out had been three and a half months before and that in the last two years, he had been out of the house only nine times. Playboy turned the bed into a workplace. From the mid-1950s on, the bed became increasingly sophisticated, outfitted with all sorts of entertainment and communication devices as a kind of control room. The magazine devoted many articles to the design of the perfect bed. Hefner acted as the model with his famous round bed in the Playboy Mansion.

Fast-forward to 2020 and beds are all over the media for very different reasons. They are the face of the catastrophe that has unfolded across the world

since late 2019. In New York, where I live, beds — that piece of equipment usually hidden from view — are suddenly everywhere. First it was the urgent call for more hospital beds, then beds overflowing hospitals, filling corridors and former waiting rooms. Any room of any size became a room for beds. The whole space of the hospital was taken over. The beds started to make new spaces, in tents, gymnasiums, parks, ships, convention centres. Haunting images of cavernous spaces with hundreds of empty beds in a grid - each with an oxygen tank and a domestic lamp - awaiting patients. The question dominating the media was always; 'How many beds?'; 'How many are occupied?'; 'How many people survived the bed?' Any bed with a ventilator became an ICU bed, so the bed became the room, the architecture. Even beds on the street, transporting the sick, are like portable rooms, some encased in a plastic bubble, reminiscent of 1960s sci-fi architecture. Beds on the move became a common and frightening sight on the streets and in the media, with medical professionals completely wrapped in protective gear and lugging oxygen tanks, like terrestrial astronauts. These portable beds act as the link between the domestic bed and the hospital bed — a vast ecology of beds, a whole landscape.

These beds are not just in the media as the real façade of this new city, but they are also media platforms, zooming, broadcasting, face timing. Bed-to-bed communication. Think of all of those whose last contact was on a phone held by a nurse. Think of all of those connecting with friends and colleagues from bed. Think of all the beds you see in the background of work meetings, socializing, comedy shows, at-home music concerts, etc. No bed is a secret anymore. This new architecture of the pervasive bed is not a side effect of the pandemic but is exposed by it. And once exposed, it might mutate again.

The bed was already on its way to become a new kind of office. The virus has taken this to a whole new level. And is there any reason to think that we will leave the bed when all of this is over, now that we have become so much better at working in bed, teaching in bed, shopping in bed, socializing with people miles away from our beds? The bed used to be the site of intimate physical contact. Now we will only get out into the street in search of such contact.

Since 1 February 2019, Beatriz Colomina has served as the Howard Crosby Butler Professor for the History of Architecture at Princeton University. The professorship is dedicated to the memory of Howard Crosby Butler (1872–1922), Class of 1892, Professor of Art and Archaeology (1905–1919) and the History of Architecture (1919–1922). Colomina's latest book on the relationship between illness and modern architecture is X-Ray Architecture (Zurich: Lars Muller, 2019).



The only all-wood chair by Jean Prouvé

When material scarcity sparks innovation



Jean Prouve's home in Nancy, built in 1954. View of the living room with a version of the Chaise Tout Bois around the dining table. Photo from 1955; Agence Photographique de la Réunion des musées nationaux / $\mathbb O$ RMN and ProLitteris

An anecdote by Catherine Prouvé

Chaise Tout Bois is the only chair by the French 'constructeur' and designer Jean Prouvé that is made entirely out of wood. The design is very similar to Prouvé's famous Standard chair, but wood was substituted for the metal base due to the scarcity of metal during the Second World War. The form of the Chaise Tout Bois articulates Prouvé's intention to provide added strength at the transition point between the seat and backrest, where the load weight of the human anatomy is greatest. The profile of the rear frame section – back legs and backrest support – makes reference to this load transfer and is a typical characteristic of Prouvé's designs for both furniture and architecture.

For Jean Prouvé, the most important aspect of design was a hands-on approach. As a trained metal artisan, he was talented in his use of materials and knew exactly how to deal with their strengths and weaknesses, especially when working with metal, solid wood and plywood.

'When my father set out to develop a new design, he made a raw sketch and then moved swiftly to the machines in his workshop to create a first prototype. All my father's designs were developed on the machines in the Ateliers Jean Prouvé. In the evening my father would throw away his sketch and only later, when he and his colleagues in the workshop were satisfied with the design after a series of mockups, would they move on to create actual technical drawings for the future production. This is the reason that very few of my father's original sketches exist today.'

The development process for the Chaise Tout Bois was not very different. The chair was created in response to a shortage of materials during the Second World War, when only wood was primarily available in most parts of the world.

- The designer's daughter, Catherine Prouvé, explains.

The Chaise Tout Bois became the only all-wood chair by Prouvé. Similar to the Standard chair in metal, the striking profile of the Chaise Tout Bois articulates Prouvé's idea of creating a chair with added strength at the transition point between the legs and the seat – a joint that always has challenged the designers of chairs due to the distribution of weight in the human anatomy.

Pressure upon a chair is greatest at the point where it carries the weight of the torso. To reinforce this zone, Prouvé deliberately exaggerated the size of the rear frame and created a shape similar to aircraft wings; a profile that was re-used in many of his later designs and architectural constructions.

During the war, several prototypes of the Chaise Tout Bois were created to test the strength, joints, leg position and connections between seat and backrest.



Headquarters of the Centre d'études nucléaires du Commissariat à l'énergie atomique © Fonds Perret

In 1945 Jean Prouvé proposed the chair as an item of what was classed 'emergency furniture'. It was made of oak, a type of wood known for its strength and durability that was commonly used for cathedral roofs and in the boat industry. Prouvé soon received an award for his design. The honour was bestowed by the Meubles de France (Furniture of France) competition in 1947, which sought to find attractive, high-quality, mass-produced furnishings to meet the post-war needs of society – particularly refugees and young married couples. Later the Chaise Tout Bois was replaced by a version with metal and wood components, and then by model no. 305 made from wood and metal – today known as the Standard chair by Jean Prouvé.

In 2020, Vitra re-issued Jean Prouvé's initial design of Chaise Tout Bois from 1941, a chair without any screws. Up to this day, we use complex industrial methods are used to produce sheets of wood veneer, which are further processed by hand. In most cases, wood from a single tree is utilised for a piece of furniture to ensure the uniform appearance of all surfaces. Our veneers are sourced from European producers and are sustainably produced.

Design implications for the home of tomorrow



Hybrid kitchen

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Living

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Home office





Broken plan





Outdoor





Dining

Hybrid kitchen

After the remote working experiment, kitchens will no longer solely serve as kitchens and places to eat. In many cases, the kitchen is the first place that has been rethought as a functional and flexible workspace.

When sitting for more than 8 hours, it is recommended to replace a kitchen chair with an office chair that enables ergonomic and productive work and that can be easily moved out when the user sets the traditional cooking or dining setting. In some cases the office chair may even be given a permanent seat at the kitchen table.



Moca, Jasper Morrison, 2020 / Rookie, Konstantin Grcic, 2018



with protective varnish

Metal (textured) - 30 basic dark powder-coated (textured)

Volo – 07 fern

Hybrid kitchen settings



Hybrid kitchen setting 1

Standard, Standard SP, Fauteuil Direction Pivotant, EM Table, Cork Bowl, Akari 55A



Hybrid kitchen setting 2

Moca, HAL Tube, HAL Ply Tube, Plate Dining Table, S-Tidy, Potence



Hybrid kitchen settings



Hybrid kitchen setting 3

Eames Fiberglass Armchair DAW, Eames Fiberglass Side Chair DSR, Eames Segmented Tables Dining, Vases Découpage



Hybrid kitchen setting 4

Table Solvay, Akari Light Sculptures, Chaise tout Bois, Standard, Standard SP, **Tabouret Solvay**

Home office

Working and learning from home brings with it a cognitive challenge: finding focus in chaos. Rooms and daily routines have to be rethought to maximise productivity. Is my workspace soundproof for online meetings? Does my chair facilitate ergonomic sitting for hours on end? Can I vary my working position

during the day with a height-adjustable table or by relocating to different settings within the home?



Tyde, Ronan & Erwan Bouroullec, 2012 / Physix, Alberto Meda, 2012



TrioKnit – 06 black pearl

Plastic – 12 deep black

MDF – 01 basic dark powder-coated (textured) Metal (smooth) – 12 deep black powder-coated (smooth)

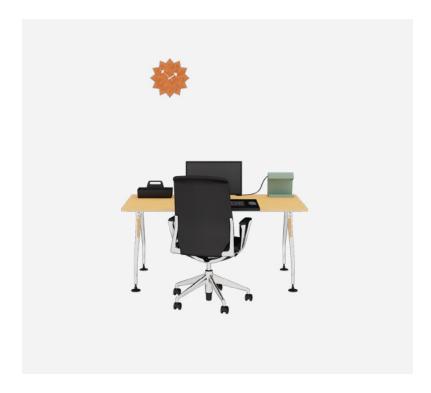


Home office settings



Home office setting 1

Pacific Chair, Tyde, **Petite Potence**



Home office setting 2

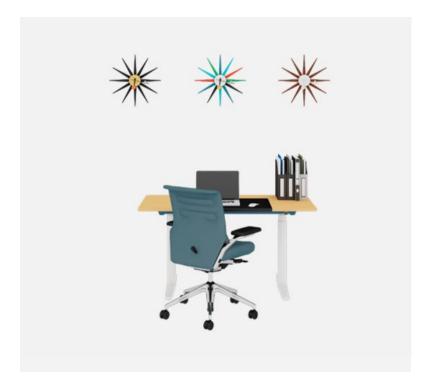
Meda Chair, Ad Hoc, Toolbox, Lampe de Bureau, Fan Clock

Home office settings



Ergonomic home office setting 1

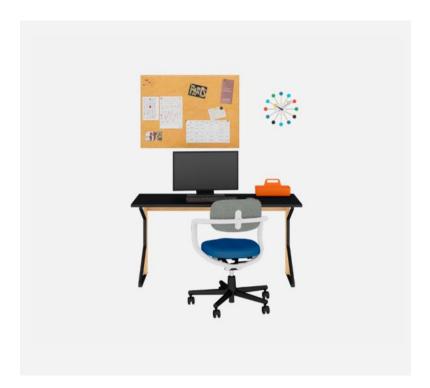
ID Soft, Tyde, Happy Bin, O-Tidy, Popsicle Clock



Ergonomic home office setting 2

AC 5 Work Lowback, Tyde, Sunburst Clock

Home learning settings



Home learning setting 1

Allstar, Kaari Desk (Artek), Toolbox, Ball Clock



Home learning setting 2

Rookie, Map Table, O-Tidy, Stool 60 (Artek), Corniches, Ceramic Clocks (Model #3)

Home learning settings



Home learning setting 3

HAL Studio, Kaari Wall Shelf with desk (Artek), S-Tidy, Cork Family, Happy Bin, Lampe de Bureau



Home learning setting 4

Tip Ton, .04, EM Table, Toolbox, Uten.Silo

Living

The home has been our safest haven for weeks on end, sometimes even months. This experience of feeling safe at home has influenced what we are looking for in our domestic environment. After having been forced to stay within our four walls for so long, our living spaces are being repurposed to meet the requirements of an active home that functions as a gym, home cinema and playground for children while still providing a domestic refuge for lounging, reading and cocooning.





Iroko 2 – 87 teak brown



Solid Wood – 75 solid American walnut, oiled

Metal (textured) – 40 chocolate powder-coated (textured)

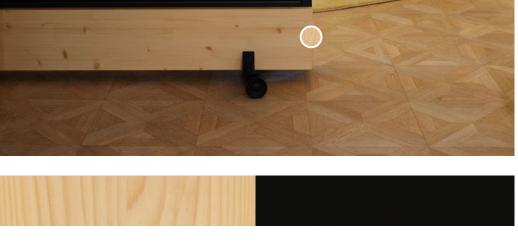
Solid Wood – birch dark brown



Broken plan

Now that we are spending more time at home and having to share that limited area with our cohabitants, we need to work on optimising the available space. Partitioning off or zoning our interior between various activities and people, or during different times of the day, presents an easy option. The so-called 'broken plan' - with screens, curtains and plants in the absence of walls creates digital detox zones while other members of the household carry on with their work. The home might even adopt some well-known typologies from open-space offices, such as soundproof phone booths or objects with higher walls. Dancing Wall acts as a mobile partition that can be used to flexibly divide rooms into dedicated zones for living, dining, working or exercising.





Solid Wood – 72 Natural spruce

Metal (smooth) – 30 basic black powder-coated (smooth)

Living settings



Modular living setting 1

Mariposa Corner, NesTable, Cork Family, Herringbone Pillows, Fan Clock



Modular living setting 2

Suita with shelf, Chaise Tout Bois, Repos, Plate Table, Potence, Sunflower Clock

Living settings



Modular living setting 3

Citizen Highback, Citizen Lowback, NesTable, Desk Clocks - Diamond Clock, Eames House Bird



Modular living setting 4

Alcove Highback Work, Fauteuil de Salon, Guéridon Bas, Kaari Wall Shelf (Artek), Eames House Whale

Outdoor

The limited use of public space during the health crisis went hand in hand with the optimised use of outdoor space in the home. We noted in the earlier chapters that outdoor sales peaked

earlier chapters that outdoor sales peaked during the lockdown. The balcony and even the garden provide a natural extension to the living space that is suitable for eating, reading, relaxing or working.



Eames Plastic Chairs, Charles & Ray Eames, 1950



Plastic – 48 forest

Plastic – 26 sunlight

Plastic – 43 rusty orange

Metal (smooth) – 30 deep black

powder-coated



Outdoor settings



Outdoor setting 1

All Plastic Chair, Bistro Table, Metal Side Tables Outdoor, O-Tidy



Outdoor setting 2

Stool Tool, Elephant Stool, Eames Elephant, Toolbox

Dining

The dining table has become the focal point for domestic activities, work and learning: shared meals, playing, reading newspapers, engaging in long conversations, home schooling. With restaurants and bars subject to

increased safety standards and capacity restrictions, we may host more friends at home, adding more chairs to our table or expanding seating options in the living room. Our homes become a way of sharing our values and personal tastes with others.



Standard SP, Jean Prouvé, 1934/1950 / Guéridon, Jean Prouvé, 1949



Solid Wood - 90 solid smoked oak, oiled

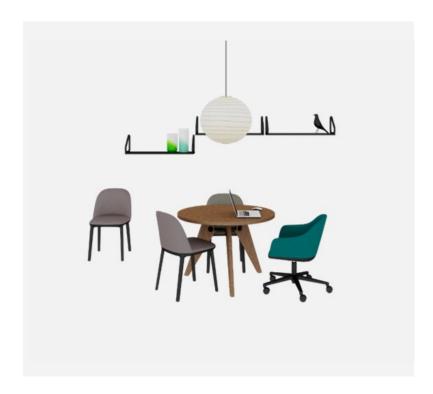
Plastic – 74 olive

Metal (textured) – 12 deep black Plastic - 31 warm grey Metal (textured) – 91 mint powder-coated (textured)

powder-coated (textured)

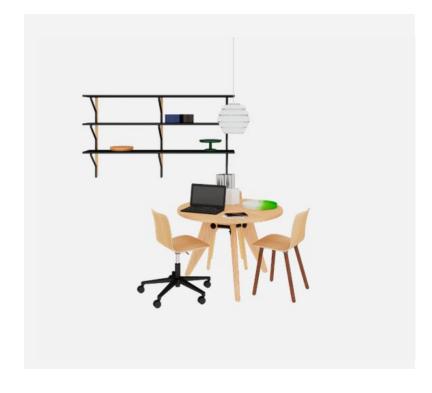


Dining settings



Dining setting 1

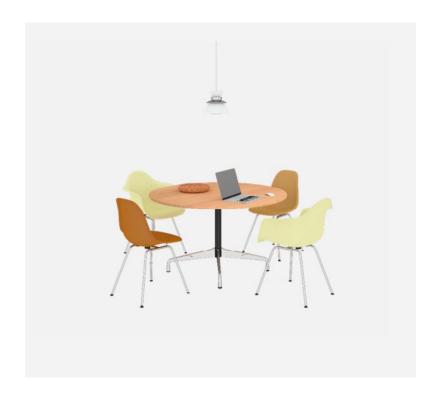
Softshell Side Chair, Softshell Chair, Guéridon, Wall Shelf 112 (Artek), Eames House Bird, Herringbone Vessels, Akari 75A



Dining setting 2

HAL Ply Studio, HAL Ply Wood, Guèridon, Herringbone Vessels, Kaari Wall Shelf (Artek)

Dining settings



Dining setting 3

Eames Fiberglass Armchair DAX, Eames Fiberglass Side Chair DSX, Eames Segmented Tables Dining, Cork Bowl



Dining setting 4

Chaise Tout Bois, Guéridon, Akari 16A, Vases Découpage

We're here to help

Do you need support in planning safe spaces?
Our teams are here to help you pave the way by developing safe shared space and facilitating the 'next normal' with tailor-made solutions.

vitra.com/nextnormal

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#vitra #nextnormal



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