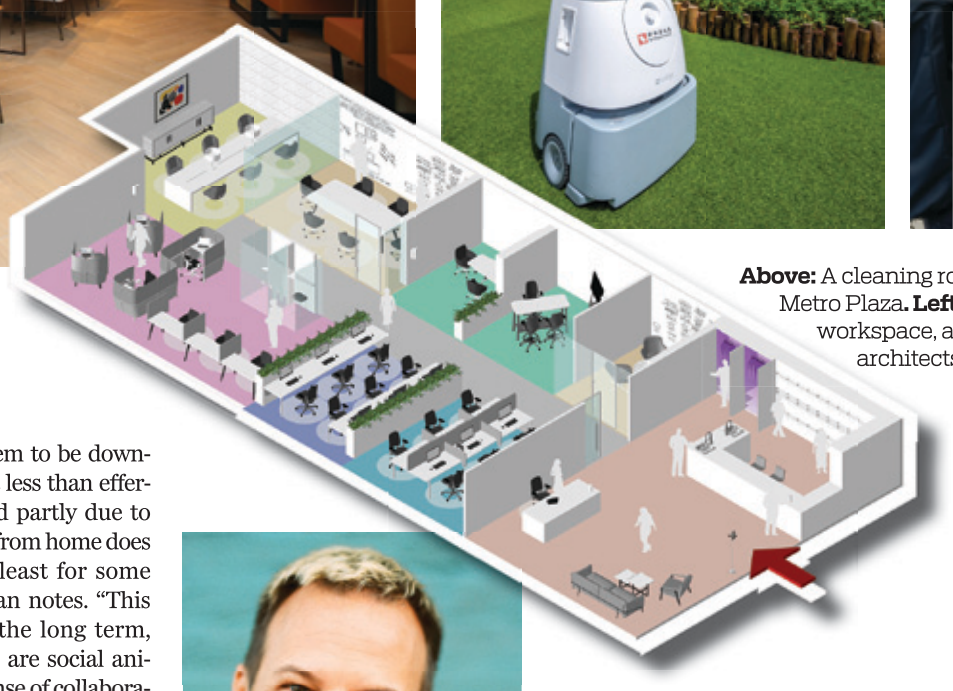
Architecture

TRUST BUILDING

Rebecca Lo finds out how HK architects are trying to pursue the goal of making office and residential buildings virus-proof in the wake of the pandemic.

Residents of Townplace Soho can use the indoor communal space to work from home.



Above: A cleaning robot at work on the lawns of Metro Plaza. **Left:** A drawing of a post-COVID-19 workspace, as imagined by One Space architects. PHOTOS PROVIDED TO CHINA DAILY

One Space's design for KPMG allows employees to choose between sitting in a cluster and separate from others.

People around the world have spent much of 2020 hunkered down at home. Those looking to return to work have legitimate concerns about the risks of catching a viral infection in a shared space.

It is well documented that COVID-19 spreads through viral residue on surfaces, direct transmission through sneezing or coughing by those infected, and viral airborne particles. While personal hygiene addresses the first mode of transmission and social distancing the second, the third is the most difficult to pin down.

"Of the three, airborne transmission is now understood to pose the greatest risk," says Greg Pearce of design firm One Space. Pearce has conducted webinars and presented papers on the subject. He feels, in order to restore trust in the built environment, seamlessly integrated protection needs to be a natural part of the user's experience.

"Practically speaking, two things remain that we can do in building design to reduce airborne contamination risk: redefining the purpose of gathering in buildings and reconceive buildings as living organisms," Pearce states. "The reasons that workers go to the office have shifted — rather than solo desk work, it is a place to go when staff needs to connect with colleagues."

Visible intent

Before the emergence of COVID-19, work from home had not caught on in Hong Kong, primarily because of the small size of the living units in the city. Now, after a year of working from home, the tables have turned and employees need assurance that they are well-protected against health hazards in the workplace before they could be persuaded to return.

Convincing staff members that the office is a safe space will entail continuing social distancing practices, says Peter Basmajian of Richards Basmajian, an interior design firm. He advocates reconsidering planning and managing parameters for both new and existing premises.

"Temperature taking points, frequency of hand sanitizing stations, and spacing of workstations with screens between staff are all within the realm of planning and design," Basmajian states.

"Many firms do seem to be downsizing, partly due to a less than effervescent economy and partly due to the fact that working from home does seem to work — at least for some employees," Basmajian notes. "This may not be true in the long term, however, because we are social animals and there is a sense of collaboration, teamwork and camaraderie to be gained from being together with workmates in an office setting."

Truddy Cheung, real estate services firm Colliers' director of Workplace Advisory Asia, agrees that measures already in place will continue to instill trust in building users. These include "access to flex spaces such as co-working spaces, increase of touchless access devices and social distance measures, alongside limiting capacity in all public spaces," she notes.

Further, promoting peace of mind for users is vital through "visible sanitization and disinfection communicated regularly and apps with timely communication to broadcast live pandemic updates," Cheung advises.

"It is important to acknowledge that the science about the virus and the fear that surrounds the pandemic are not always aligned," Pearce admits. "Both need to be addressed through the buildings and spaces we design and operate."

His experience with clients and within his own company shows that transparent messaging involving all affected stakeholders goes a long way. Most employers have a genuine interest in ensuring staff welfare, which is evident in the visibly high standards of hygiene they try to maintain.

Smart tech devices

Besides employers, real estate developers too are trying to ensure that existing and new buildings are up to snuff.

"Developers will likely face greater scrutiny about their buildings' infrastructure," predicts Pearce. "For example, air conditioning systems can be fitted with UV-C wavelength disinfection devices."

Hong Kong developer Sun Hung Kai Properties has proactively responded to the needs of tenants during the pandemic. For its new residential developments, St Martin and Townplace Soho, work from home features such as robust wired and wireless information technology infrastructure have been integrated. To address the social and business needs of tenants, the developments offer versatile clubhouses, open spaces and gardens.

One Space co-founder Greg Pearce says nowadays people visit their offices to connect with colleagues rather than work solo.

Ensuring employees' peace of mind is key, says Truddy Cheung, Colliers' director of Workplace Advisory Asia.

Mike Wong, deputy managing director, Sun Hung Kai Properties, says the smart technologies installed in their premises will outlast the pandemic.

SHKP has further ramped up its al fresco offerings in its shopping malls, addressing many families' desire for healthier outdoor experiences during the pandemic. These include an outdoor urban farm and children's play area at YOHO Mall and an outdoor balance bike park at New Town Plaza.

Since the beginning of the pandemic, SHKP has also raised hygiene standards in its existing properties. Alongside upgrade of its ventilation systems, the developer has installed contactless features such as automatic entry doors and touchless elevator call buttons. Intelligent cleaning robots for deep cleansing and disinfection have been pressed into service, and height sensors in mall waste bins send out disposal requests when full. Anti-bacterial nano coatings on concierge desks, ion air purifiers in elevators and ultraviolet sterilizers in malls further enhance hygiene standards.

"COVID-19 has changed how people work, live, and consume," says Mike Wong, deputy managing director with SHKP. "To cope with the new normal, we have widely adopted innovative designs and smart technologies to make our premises cleaner, safer and more intelligent. These changes will outlast the pandemic as the comfort and health of our customers, tenants and colleagues remain our top priority."

Pearce believes that going forward, office buildings will transform into a new animal: a "comprehensive destination, mixed-use microclimate that provide flexible, safe and accessible facilities for meeting, gathering, sharing, collaborating and socializing with our colleagues. In Asian cities, we can foresee a shift away from the traditional landlord/tenant relationship toward that of a service provider/customer one. This would align landlords with occupiers toward satisfying the user experience that more discerning tenants seek — with a focus, of course, on health and well-being."

House health meter

By REBECCA LO

Digital Twins grew out of Building Information Modeling technology. A DT is a full-scale, three-dimensional building model that can be used to monitor infected cases within it in real time.

"In the real estate sector, a DT is a digital representation of a commercial building," explains Sam Harvey-Jones, Colliers' managing director of Occupier Services Asia. "The technology is in its nascent stage, but has the potential to transform the way in which the industry operates. Benefits include cost and efficiencies for existing building owners in the form of preventative maintenance, efficient inventory management, optimizing operations and 3D layouts facilitating virtual tours and surveys. For developers, it can provide benchmarks for project progress, structural integrity, quality control, safety, equipment optimization and sustainability."

"With regards to COVID protection, we anticipate DT's usefulness will become more apparent," believes Greg Pearce, co-founder and managing director of One Space. "For example, a post-COVID designed building connected to its DT will act as a continuously learning life support system for the health and wellness of its occupants. It monitors user access records, social distancing at critical locations, elevator capacities and travel, and filters and other wellness critical systems. DT helps ensure that a building asset remains fit for purpose throughout its lifetime."

Pearce thinks that the DT concept is well suited to Hong Kong, as the city's digital connectivity is advanced and data centers are mature. "In dense urban areas, several buildings and their DT could be networked and interfaced to create smart blocks of energy efficient buildings and spaces," he suggests.

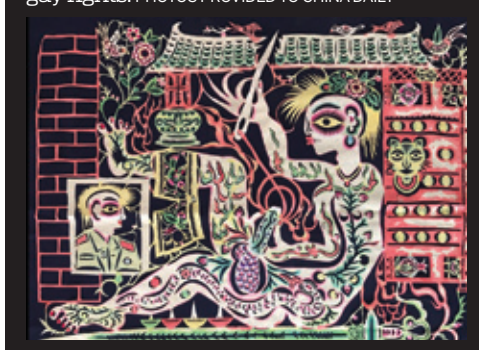
Harvey-Jones feels that commercial real estate owners and investors of office buildings in the region would be among the first to deploy and benefit from DT. "As with all technology, its adoption as well as the volume and quality of data will be crucial," he notes. "DT is an exciting new platform that could change the way we construct and manage buildings."

A digital twin, or virtual 3D model, of Hong Kong International Airport will help enhance operational efficiency.

Art

Goodwill ambassador of gay art

Sunpride Foundation exhibits works such as Jes Fan's *Visible Woman* (above) and Xiyadie's papercut art (below) to promote gay rights. PHOTOS PROVIDED TO CHINA DAILY



By JOYCE YIP

Patrick Sun finally got round to discussing homosexuality with his then 99-year-old father on the last day of the maiden LGBTQ+-themed exhibition he had put together. The show, held at Museum of Contemporary Art in Taipei in November 2017, was called Spectrosynthesis — Asian LGBTQ Issues and Art Now.

Sun junior took care to skim through the exhibits with pronounced erotic overtones during the private viewing for his father. In the end, the near-centennial acknowledged his ignorance of the subject but was pleased to see the exhibition being held in a government-run museum. Besides, the impressive audience turnout meant that his son must have been doing something right.

While discussions about sexuality, including his own gay status, rarely happens at family dinners even now, Sun says he's become more relaxed around his father. His Taipei show took place at a time when same-sex marriage was a hot political topic in Taiwan. Sun likes to believe his show played a part in the February 20, 2019 ruling legalizing gay marriages in Taiwan. This opening up of a space for dialogue about LGBTQ+ issues on both personal and international platforms became the fuel for Sun's subsequent Spectrosynthesis II — Exposure of Tolerance: LGBTQ in Southeast Asia exhibition at the Bangkok Art and Cultural Centre in 2019. A Hong Kong show is planned for 2022, when Asia's first Gay Games take place in the city.

Sun launched Sunpride Foundation in 2014, with the hope of effecting social change by showcasing LGBTQ+-themed art collected from Asia. He reckons artists often have reservations about the "gay art" label, when they ought to wear it with pride.

Coined by fusing the words "spectrum" and "photosynthesis", Spectrosynthesis alludes to the spectrum of light representing the diverse and rainbow-colored LGBTQ+ community.

Patrick Sun launched Sunpride Foundation to promote LGBTQ+-themed art collected from Asia.

Both exhibitions hosted works by more than 50 modern and contemporary artists from around the world, including the likes of Hong Kong's Tseng Kwong-chi and Jes Fan, as well as Xiyadie and Yan Xing from the Chinese mainland. Artworks either featured LGBTQ+ subjects or were created by LGBTQ+ artists. The themes ranged from same-sex parenting, social stigmatization of non-binary sexual relationships, equality, culture, self-identity and more — ideas that anyone, queer or not, could relate to, says Sun.

For example, Jes Fan's *Visible Woman* installation uses PPE pipes to connect a number of sculptures resembling human organs, symbolizing gender fluidity. Xiyadie's delicate papercut art depicts his life before and after coming out to his wife and children.

"In a sense, we all are minorities in this world. Spectrosynthesis presents a spectrum of works and mediums. So whoever walks into our show would find something they can relate to and leave with a sense of compassion for all minorities, especially the LGBTQ+ community," says Sun.

Keen to represent all the colors in the spectrum in his exhibitions, Sun understands his limits. In Thailand alone, for instance, there are 18 different gender identifications.

"Our ethos is not to explore how many identities are out there, but to foster a sense of inclusion in our visitors through tackling the issues we all face," says Sun, hoping his efforts will help "reduce the discrimination against the LGBTQ+ community so they can live a normal, visible life."

"Change doesn't come overnight," he adds. "I always believe that if we can take one step forward, we can slowly change the world. Art is only one way we can do this."