



# HOMES THAT HEAL

Is your current living set-up hazardous to your family's health? Three global realty firms talk about a holistic home-building approach Writer Nolan Lewis



**R**owena Gonzales has been the talk of the town in Hong Kong's design circles for a while now. The founder of design studio Liquid Interiors now designs spaces using LEED ID+C, BEAM Plus and WELL Building standards exclusively, a transition that stemmed from a personal crisis.

"When I first moved to Hong Kong, design was a lot more about luxury and it was pretty soulless. I wanted to make a difference. I first looked at sustainability, but something happened two years later that changed my whole world!" Gonzales says. "At age five, my nephew became a cancer survivor. Fortunately, he is strong and healthy now. During his recovery I learnt a lot about the triggers of leukemia from some Chinese media linking childhood leukemia with high formaldehyde levels from home renovations. This made me question if I was putting families at risk with my renovations.

It was then that I made it my mission to create interiors that no longer had negative side effects for health."

## THE ARCHITECTS OF WELLNESS

Gonzales belongs to an erudite niche of ethical architects and homebuilders across the world who are ditching conventional brick and mortar for non-toxic building blocks. Healthy Home Builders, a New York-based builder is redefining non-toxic home construction by offering suburban homes with white picket fences and manicured lawns, epitomising the American Dream. "Many conventional construction products emit harmful vapours including formaldehyde, phthalates, PBDEs and VOCs. We only use solid-wood cabinets and millwork with absolutely no toxic glues or adhesives," explains Pete Donovan, co-founder.

Donovan says, "A wellness home or 'healthy home' as we like to call it at HHB is designed healthy from the start. Traditional construction places emphasis on cost and engineering. We add the importance of health to the build with a detailed review of what the materials are actually made of. Each item used in a Healthy Home build is vetted for toxicity after which, we install systems that will keep the air fresh via an ERV (Energy Recovery Ventilation) system and a whole-house water filtration and purification system."

Hines, a global real estate investment and management firm, has invested US\$23 million in Tata Housing Development's wellness project, Serein, in India. At the luxury high-rise that is estimated to be ready for possession in 2021, potential homeowners can expect air purifiers, high performance glass fixtures, EMF shields, vitamin C-infused showers and low VOC paint.

## SPACES THAT SICKEN

Sara Mckenzie, a 32-year old from Central London was suffering from respiratory symptoms such as wheezing, coughing, watery eyes and skin irritation, initially dismissing the symptoms as a seasonal allergy. But when her medical conditions persisted and worsened over time, Mckenzie noticed she only felt sick when indoors in her studio apartment, especially more so over the weekend, when she was home a lot but was able to breathe easy every morning when she went out on a run. She also noticed that these symptoms only began after moving into her new rental accommodation, a few months earlier. The condition improved as soon as she moved again.

Mckenzie suffered from 'Toxic Home Syndrome', an ambient condition that occurs when indoor air-pollution levels rise to hazardous levels. "That's a misnomer – it's actually Toxic Building Syndrome, which applies to schools and office buildings as well," Donovan clarifies. "It is a build-up of noxious gases or particles indoors and water that causes chemical sensitivities or allergic reactions. In homes, the problem often originates from moisture, specifically water intrusions. The proper preventative solution is home insulation beginning with the 'building envelope' that means that every part of the home that is exposed to the outside elements must be properly insulated. Within 48 hours of exposure



to water, mould can form and multiply, causing toxic mould. HHB utilises a non-toxic interior insulation as well, specifically recycled denim batting made from recycled blue jeans. This product is also great for soundproofing."

What most new homebuyers don't realise, unless they get sick from experiencing first-hand effects, is that the typical house is built with materials laden

with toxic chemicals. The most common are formaldehyde found in plywood, particle boards and other pressed wood products that are used to make furniture, cabinets, shelves, and countertops and solvents used in oil-based paints, stains, wood preservatives, carpet glue and other adhesives that release dangerous fumes containing volatile organic compounds. Hermetically sealed homes trap indoor pollutants and create an environment ripe for mould growth. Many homes are full of electrical pollution caused by such laptops, tablets and smartphones, the now-ubiquitous Wi-Fi and cable TV transmission systems.

## HOLISTIC OR HOAX?

Like much of the spa and beauty industry, one has to sift through a plethora of information. "Ten to 15 years ago, the realty industry started off with the fad of 'Green Buildings'. But as more research and data was published, that translated into greater responsibility and accountability that evolved into today's LEED Certified Gold rating. The same applies to the wellness building community," says Sanjay Dutt, CEO at Tata Housing.





The concept of Wellness Homes has been around for approximately five years. Donovan says, “The improvement in how we build began about five years ago when products starting becoming available to builders willing to use them. Our company started out of sheer necessity. We had clients whose health had been declining with constant respiratory ailments due to poor indoor air quality due to chronic water leaks, condensation issues and general disrepair. We provide a healthy sanctuary to rest, recharge and detox.”

While only commercial establishments are regulated, the WELL Building Standard was launched in 2014 to monitor the health impact of wellness constructions. Gonzales says, “The WELL Building Standard is the premier standard for buildings, interior spaces and communities seeking to implement, validate and measure features that support and advance human health

and wellness. It is the first standard for buildings that was created by both doctors and architects.”

Dutt seconds Gonzales. “Wellness homes have always been around. Traditionally in Indian villages, we lived in eco-friendly homes made of terracotta and thatched roofs. Urbanisation and unplanned growth have been the biggest detriments to holistic living. Rural populations have always been more eco-conscious because they have lived surrounded by nature, all their lives.”

## THE DIFFERENCE IN DOLLARS

“A truly healthy home could cost approximately 10 per cent more than today’s average home build, but why not build healthy than pay the much higher cost of medical care and treatments for ailments

due to poor air quality and contaminated water, which could be avoided?” Donovan rationalises.

Depending on where in the world you live, building a wellness home may require more effort. “A wellness home can be very affordable if you live in a part of the world where building materials and chemical content are controlled by building standards. For example, in Canada it is standard at hardware stores such as Home Depot that all of their paint is LOW VOC and their plywood is all formaldehyde free. In Hong Kong where these products are not standard, customers must pay a premium for sourcing and delivery of these products. In general, wellness homes are possible in a mid-range budget and difficult with

a functional budget,” says Gonzales, who has lived in both countries.

A case of ‘penny wise, pound foolish’, Dutt believes. “If my building has LEED Certified Gold Standard rating and I attach solar power supplied from the grid, my cost per unit gets slashed by 50 per cent. When you translate that into real estate savings, it reduces the maintenance cost per unit, which is profitable for homeowners. Even in wellness homes, while the initial investments may be high, the long-term returns are immense.”

## SMART TECH SAVES LIVES

Even in its early stages, wellness homes need to keep up with the constant upgrades

to smart home technology. Gonzales says, “We are constantly upgrading as technology changes. We often integrate smart home technology to facilitate wellness features such as the circadian lighting scenes and electromagnetic frequency controls to monitor sleeping areas.” Frost & Sullivan’s report *Vision 2025 – Healthcare in the Smart Home* reports a huge market is opening up for automation products that can help deliver health and wellness services through smart homes.

Dutt says, “When air purifiers were first launched, they were considered a gimmick. But in smoggy cities like Beijing and Delhi, today they effectively control indoor pollution levels and pollen count. Technology does commendable damage control and can prevent health ailments.”

## WHEN MOVING ISN'T AN OPTION

Even with the facts at hand, moving homes can be expensive and not always a feasible option.

“Any house can recover into a healthier home, if repairs and improvements are made with non-toxic materials and the right contractor who knows how to properly retrofit a healthy home,” Donovan suggests.

Gonzales encourages the use of certified non-toxic cleaning products or homemade natural cleaning products, made with essential oils.

Dutt says, “It is inevitable, the way the planet is deteriorating. Wellness buildings will become the only acceptable benchmark – the future of the world depends on it.”

