OUT OF THE BOX

Uncertain times need courageous ideas. And these for the wellness of everything from our minds and
are the big thinkers forging a brighter future bodies to our cities, prairies, and skies.
Done right, architecture is about problem-solving as much as it is about aesthetics. Joshua Ramus, founder of the New York firm Rex, comes up with precise solutions that not only seem less busy than his rivals’ work but actually expand the field of vision for his clients; his designs make the world look both bigger and clearer.

Take Ramus’s 2017 redo of one of New York City’s ugliest Brutalist hulks, 5 Manhattan West. The sloping sides couldn’t be updated to current building codes without losing interior space—but then Ramus had an aha moment: He added a “pleated,” ziggurat-like glass façade that actually helps the structure shade itself, saving money and energy, retaining square footage, and also making it a lot more pleasant for those inside and out.

Ramus, 51, says he goes for the “most elegant and most pure” approach. He started to make a name for himself heading up the New York branch of Rem Koolhaas’s Office of Metropolitan Architecture, where he worked on projects like the award-winning Seattle Central Library. In 2005 he went out on his own and today leads a staff of 25.

Next year comes the largest-scale test of his ingenuity: the debut of the 90,000-square-foot Ronald O. Perelman Performing Arts Center, located near the 9/11 Memorial in Manhattan. Ramus has emerged as an important voice on concert hall design, at least partly fueled by his background as a classically trained French horn player. “Architects love them because they provide a chance to do an extroverted design,” he says of the dramatic shapes concert halls have taken on, “but that often results in bad acoustics.”

At night the partly translucent exterior—essentially a box with one dramatic wedge-shaped cut—will glow, an effect derived from sandwiching glass between layers of stone laminate, “but it still conceals activities that you don’t want to see from the memorial,” says Ramus, respectfully deferring to the 9/11 tribute.

The three main auditoriums can be reconfigured seven-plus ways, creating what he calls a “machine that encourages experimentation.” He carefully calculated how moving walls will affect performances and audience experience, adding that “even a ten-foot difference can have a radical impact.”

In 2022 Rex will also debut the Brown University Performing Arts Center, equally ambitious and flexible on the inside, but at a more boutique scale. “We’re really committed to the idea that buildings are not just representational,” Ramus says. “They can do things.”
“The only prerequisite for yoga is breathing,” says Jessamyn Stanley. “If you’re alive, you can participate.” It’s an ethos the North Carolina–based author and self-described “fat femme” outlined to much acclaim in her celebrated 2017 book, Every Body Yoga—it’s also an approach that’s decidedly at odds with how American yoga is presented today. “That practitioner is thin, able-bodied, white, and affluent, and that is who companies have always preferred to market to, because it’s the group of people with the most money to spend on things—and because of pure white supremacy,” says Stanley, who describes feeling so self-conscious during the first studio class she ever attended in 2010 that as a result she moved her practice solely online. She wasn’t the only one.

Now with a thriving digital practice, a yoga app (The UnderBelly), another book on the way, and a podcast (Dear Jessamyn) that explores the interconnectedness of love and relationships and yoga, Stanley is the doyenne of her own body-positive wellness empire, one that firmly believes yoga is not only one-size-fits-all, but that it’s a mental and spiritual medicine, one with a clear lineage to its origin in India thousands of years before it became a vehicle for athleisure brands and Instagram influencers.

Stanley is also convinced that yoga could do a lot more. She believes that the solution to the cultural inequality she sees—a kind of collective healing, the kind you can’t have without deep reflection and personal introspection—is not as inaccessible as pundits might make it seem. “I would argue that dismantling systemic inequality and systemic racism is something that’s a requirement of yoga practice,” says Stanley. “Until people are doing that, I would argue that we’re not really collectively practicing yoga.”
Upcycled organic architecture

BY IAN VOLNER

The Living: The name alone sounds like a provocation, a call to arms. Founded in 2006, the eight-person design firm is helmed by David Benjamin, and its focus (as hinted by the name) is on organic systems and how they can be used to shape the built environment. “Buildings should be flexible, more like living organisms,” says Benjamin. “They should change and adapt over time.” Innovative yet earthy, the Living is driven by a singular social mission, the attempt to reinvent the human ecosystem for a world in crisis.

The New York–based office first broke onto the scene in 2014 with Hi-Fy, its winning submission for MoMA PS1’s Young Architects Prize. A series of silo-like towers, the pavilion structure was designed using software and built entirely of organic materials, including plant-based bricks that could be manufactured and discarded with zero carbon waste. Originally developed for use in packaging, the technology involves shaping cast-off cornstalks and other farm discards into oblong blocks, then adding a fungus that feeds on the scraps and binds them together through a natural digestive process.

Originally developed for use in packaging, the technology involves shaping cast-off cornstalks and other farm discards into oblong blocks, then adding a fungus that feeds on the scraps and binds them together through a natural digestive process. Discovered by the Living in the course of its wide-ranging research, the laboratory approach was adapted by the designers in consultation with farmers to create bricks that can be both manufactured and discarded with zero carbon waste.

Growing a fairer food system

BY ALEXANDRA ZISSU

As the cofounder of Soul Fire Farm in Grafton, New York, which began as a community farm and has since grown into a sprawling organization that aims to end injustice in the food system, Leah Penniman already knew her work was essential. It just took a pandemic for New York State to call it that.

Black farmers are scarce in this country, where 98 percent of the land, dispossessed over the past century, is now white-owned. Soul Fire offers a residential training program to educate would-be farmers of color, as well as food shares on a sliding cost scale and help with matching resources (like land to farm, or funding) with farmers’ needs through a reparations project coordinated by Northeast Farmers of Color Land Trust. Through her work at Soul Fire and her book, Farming While Black: Soul Fire Farm’s Practical Guide to Liberation on the Land, Penniman has become a leader in the movement for land redistribution, rights for farmworkers, and access for everyone to affordable, nutritious food. When food insecurity skyrocketed during COVID-19, people were finally ready to listen. “It’s a blessing but also overwhelming that so many people are having their awakening right now,” Penniman said.

As demand for her expertise grows, Penniman is keeping her hands in the soil. Her goal remains the same: “that we have fairness and justice in the food system—as my daughter would say, from sunshine to plate.”
Fixing the climate for everyone
BY ALEXANDRA ZISSU

“This new movement building around social justice is beginning to incorporate a broader sector than police brutality and criminal-justice reform,” says Peggy Shepard (above), the cofounder of WE ACT for Environmental Justice, based in Harlem. Communities of color, especially low-income ones, have higher exposure rates to air pollution and other environmental hazards. WE ACT’s purview is wide-ranging: Its 900 members work to empower residents to take an active role in government decisions. The organization blocks new bus depots in overtaxed neighborhoods, advocates for safer public housing, and trains citizens to engage with their elected officials. (Shepard was one herself, a former Democratic district leader.) Her reach is national. In Washington, D.C., where WE ACT operates an office, “we are the first institutionalized voice on environmental justice that impacts policies,” she says. In June, as America erupted in protests in support of Black lives, WE ACT helped relaunch the National Black Environmental Justice Network, ensuring that as focus returns to the climate crisis, justice will be part of the conversation.

with the procedure’s original inventors, and then given a stunning architectural form—a two-step move emblematic of their speculative yet practical outlook. In the years since, says Benjamin, the team has taken the same tack in exploring “different scales, building uses, and contexts,” adding up to “a huge evolution in our thinking.” The firm has continued to explore the complex interplay between nature and technology, designing a computation lab for Princeton University, a 60,000-square-foot Toronto office for software makers Autodesk, and installations from Seoul to Brooklyn.

The firm’s experimental outlook has allowed them to keep growing, even in trying times. “We’re in this moment where all previous assumptions are being questioned,” says Benjamin, and he and his collaborators have been using the COVID-19 shutdown as an opportunity to pursue multiple projects, each one aimed at trying to create a safer and more sustainable future. In Sierra Leone, the architects have been forging ahead with a new hospital, deploying natural ventilation and locally sourced materials. The team has also been working on a radically new model for Airbus’s factories, with far-out features like lab-grown concrete. And for the next Venice Architecture Biennale, which has been postponed until 2021, the group is working on an installation about designing with bacteria, fungi, and other forms of microbial life. “It’s a challenge to the modernist obsession with being sterile,” says Benjamin. “All these invisible forces—they can actually give us so much agency in architecture.”
A world molded by mushrooms

BY SANDRA BALLENTINE

British biologist and fungus expert Merlin Sheldrake became the latest champion for the mycology world this spring with the publication of his book *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures*. He celebrated by feeding a copy to a battalion of *Pleurotus ostreatus*, or oyster mushrooms, recording audio as they spent a week

Cleaning up the hygiene business

BY ALESSANDRA CODINHA

“Soap might not sound as sexy as something that a Silicon Valley start-up promises will save millions of lives and change the world,” says Mera McGrew, the 32-year-old founder of Soapply, “but unlike many of those, soap really works.” As awareness of the importance of handwashing swept the world this spring, millions of people realized that the big brands left their skin dry and irritated. Demand rose for Soapply’s silky soap, made with plant-based, food-grade organic oils and totally free of the detergents and potentially toxic irritants used by both mass-market and luxury competitors. (The direct-to-consumer subscription service, chic refillable glass bottle, and percentage of purchase price devoted to global hygiene initiatives didn’t hurt either.)

McGrew, who has for years referred to herself as a “handwashing evangelist,” compares the change in consumer awareness to the organic food movement. “Soap is finally having its moment,” she says. And it’s not alone: Shared surfaces have also come under the microscope. Earlier this year, Amanda Weeks’s company Ambrosia launched Veles, an all-purpose home cleaner made almost entirely of water and food waste redirected from landfills. Waste and cleaning products “probably couldn’t sound further apart,” Weeks says, but it works. The essential-oil-laced combination of alcohol, acetic acid, and lactic acid expertly tackles tough stains and surface contaminants, and every recyclable, refillable aluminum bottle reduces greenhouse gas emissions by offering an alternative to landfills for wasted food and by cutting down on plastic. It’s cleaning up with a clear conscience.
Sheldrake, who in his spare time performs with a band called Gentle Mystics, accompanied on piano. He also ate the mushrooms.

Entangled Life is a varied look at the possibilities offered by this organic kingdom, one that’s become increasingly vital to our vision of a more sustainable future. “Fungi are some of the most masterful microorganisms on the planet,” says Sheldrake. “Without them, nothing would decompose, and the earth would be piled kilometers deep in bodies. We live and breathe in the space that decomposition leaves behind.” Sheldrake’s writing also explores cutting-edge innovations for mushrooms, like using them as building materials; teaching them to eat human detritus such as cigarette butts, oil spills, and radiation; and ongoing studies of psilocybin, a psychedelic, as a mental-health tool. “There is radical research suggesting that one or two doses in a carefully controlled environment can change people’s views of the world, and alleviate treatment-resistant depression,” he says. “I think fungi can help all of us think in new ways about how we relate to the world around us, and we need to start doing that quite urgently.”

Building living cells
BY ADAM FISHER

At 50, Drew Endy (above) is a founding father of one of science’s newest disciplines—bio-engineering. Twenty-one years ago he proposed the first tool kit that would allow bioengineers to build living cells in the same way that electrical engineers construct useful gadgets from transistors, resistors, capacitors, and the like. He then helped found the International Genetically Engineered Machine (iGEM) competition, which has trained more than 50,000 students in the basics of bioengineering. “Think of me as a doula,” he says.

That’s Endy being modest: He has also helped lead the team that invented the “transcriptor,” which is the biological equivalent of the transistor, a key building block in making computers. With the advent of Endy’s transcriptor, it is now possible to construct a computer out of living matter. Today Endy, a professor at Stanford, is busy laying the foundations for a future where the ability to engineer life is as common as the ability to write computer code. “The implications are enormous,” he says. “It means that ten billion people could flourish on this planet without trashing it.”
Ranchlands uses research-based techniques for land management, like prescriptive grazing.

Below: Duke Phillips IV.

Sustainable ranching for the 21st century

BY SANDRA BALLENTINE

The pandemic contributed to a surge in land purchases in the American West, says Duke Phillips III, the third-generation cattleman behind Ranchlands. A conservation-driven livestock-management company and luxury eco-retreat, Ranchlands also runs turnkey operations for property owners who may not have the time or expertise but want to learn how to live off the land the right way. High-net-worth individuals are buying large tracts for two reasons, Phillips says. “One, to have a place to go that’s away from the rest of the world, and two, as a low-risk, long-term investment”—one that can be shared with multiple generations. In the case of the Phillips family, ranching has also served as a way to carry some of America’s agrarian traditions into the future.

Ranchlands works closely with groups like the Nature Conservancy, Colorado Parks and Wildlife, and the Natural Resources Conservation Service to tailor site-specific, science-based conservation initiatives for each property (including prescriptive grazing, to mimic the symbiotic relationship between the grasslands and the great bison herds of the past). “Everything we do has the land at the center of it,” says Phillips’s daughter, Tess Leach, who, along with her brother, Duke Phillips IV, manages Ranchlands’ five large-scale livestock operations in Colorado, New Mexico, Texas, and South Dakota, as well as the company’s leather-goods outfit. “We can’t run a business if we don’t have a healthy landscape.”
Health by machine learning

BY ADAM FISHER

Twenty years ago, as a Stanford chemistry professor, Vijay Pande started Folding@home, a citizen-science project that asked people to lend unused computer time to researchers, who then harnessed it to simulate protein folding, a computationally intense task. Understanding how proteins fold into their functional shapes, and why they occasionally misfold, may be the key to curing everything from cystic fibrosis to Alzheimer’s disease. The project has attracted more than 4 million idle computers.

Today Pande is a venture capitalist investing in companies at the intersection of biology and computer science. Currently, Pande is hopeful about Apeel, which has developed a plant-based coating for fruits and vegetables that makes them last longer without refrigeration, which could help minimize food waste. There’s Freenome, a company working on combining rapid gene sequencing and machine-learning techniques in order to detect fragments of cancer DNA in an ordinary blood draw. Pande’s biggest bet, however, is on Insitro, a biotech company that uses machine learning to develop new drugs. “If you wanted to save lives by starting a brand-new pharmaceutical company,” says Pande, “that’s how you would build it.”

Design wellness into your life

BY COTTON CODINHA

“Wellness is a practice of taking care of yourself in private so that in public you feel better, and you can take care of everything around you,” says Joe Holder, the self-described “creative director of modern wellness.” Holder calls his overarching fitness philosophy Ocho System, and he’s applied it to consultant gigs with brands like Dyson and Nike and for clients like Naomi Campbell and Virgil Abloh. It’s founded in the belief that optimized health and wellness is a lifelong commitment, one that doesn’t necessarily have to be fraught.

“The biggest thing that you can’t forget is to remove the blame from yourself,” says Holder. “That means hold yourself accountable, but put the blame on your environment, and then set it up for the best results.” Eat well, drink lots of water, and break up workouts into smaller, easily accomplished chunks (“exercise snacks”). Set yourself up for success: Design wins out over willpower every time. “If you don’t have soda in the kitchen, you won’t drink it. If you can just design your personal environment, that will help you realize how the rest of the world is really not set up to facilitate your health goals. So take it on yourself and remove the things in your world that will make it harder for you.”

An important aspect of Holder’s work is the concept of “intergenerational health,” held up by four socially concerned tenets: environmental care, access to general and mental healthcare, access to fitness, and food justice. “I know everybody wants to burn it all down right now,” he says of our currently fragmented system, “but it’s what we have to work with. It’s about combining corporate goals with individual health and community health.” For example, Holder says, when negotiating with an employer, ask about matching programs, and build a donation of $500 or $1,000 to a charity of your choice into your contract. Health is wealth; spread it around. ☮