

Responsive vs. Reactive Design – Building for Resilience



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hroughout the course of human history, nearly every dramatic global event – wars, pandemics, political revolutions or climate change – has precipitated a change in the ecology and design of our built environment.

Some of these changes have been lasting and beneficial: the transformation of European capitals like London and Paris due, in part, to the cholera epidemic; 19th-century New York's reaction to the tenement housing crisis; the rebuilding of Berlin after the war.

As we emerge from the COVID-19 pandemic, we are called to question the ways in which our built environments might need to adapt. Should we eliminate openplan offices, expand elevators and hallways, replace existing fixtures with antibacterial surfaces, shift retail environments entirely online? Will we see the end of large office towers and concentrated business centers? Will everyone actually work from home five days a week?

As architects and designers, our challenge is to respond to the needs of today while anticipating the needs of tomorrow.

With acute threats like overpopulation, pandemics, and climate change forecasted, our role becomes that of mediator. Rather than adopting a reactive approach where design solutions are simply tailored to the needs of the current crisis, the design community needs to step back, take stock and channel the lessons from the last month, year, decade, and century to create integrated solutions that are positioned for resilience.

The pandemic isn't over. Most lessons will take time to unravel. Instead of claiming that we know the answers, we'd like to pose a series of ideas that the architecture and design field should consider, ideate and debate.

Collectively if we are all asking the right questions, sharing information, and creating dialogue and dissertation, we can establish best practices that benefit the global community, ultimately creating safer spaces, more integrated communities, and inspiring environments for humanity to live, work and play.

• What have we learned in the last six months? There is a dichotomy within this crisis between those who feel like time has slowed to a crawl and others who are in the thick of rapid innovation and swift sociopolitical and cultural change.

On the innovation side, we have seen exceptional ingenuity with companies and individuals producing products faster and more efficiently than we have seen since WWII. Projects have been streamlined, retail spaces have been retrofitted overnight, and hospitals have popped up in shopping malls and convention



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centers within days.

What can we learn from the innovators? How can we adapt their best practices and apply their efficiency to building design of the future?

Here are a few of our key takeaways from the last six months:

- 1. Bureaucracy and the long decision-making process typically associated with architecture and design can be condensed into more efficient timelines.
- 2. While we have been walking around the conversation of what the future of work looks like, the future is now and we need a new set of best practices to ensure the spaces we are building will be needed 10 and even 20 years from now.
- 3. The digital revolution is here. Shopping malls and traditional centers of retail have been waning, but overnight became obsolete. How can we use the same innovation concepts discovered during COVID to reimagine what centers of commerce look like? How can we repurpose the current built environment to fit the needs of the new world?
- How can we adapt our spaces to prioritize physical and mental well-being? The trend toward wellness in building design, while not new, will be amplified in the wake of COVID. Beyond lighting, natural sunlight, ventilation, and nontoxic materials, how can we take best practices from the health care environment and apply them in a stylish and savvy way for hospitality, office space and retail? How can we adapt these concepts to work in our homes?

It needn't require a complete overhaul. Instead, design can incorporate simple solutions that can be easily retrofitted to promote well-being in our public and private spaces. How might we expand walkways within high-traffic areas, ensure adequate air circulation with windows, create easy-to-access, portable hand-washing areas, and increase the use of easy-to-clean materials and surfaces?

Beyond physical well-being, we must also ensure that spaces are designed to benefit mental health. The



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toll of the pandemic on our mental health has yet to be quantified. However, in the coming months and years, it is important that we explore the relationship between design and mental health, namely, the innate human need to be in close community with other human beings.

The isolation inherent to our current technology-driven society was made even more acute by stay-at-home orders. How can we use design and architecture to ensure individuals - particularly those who are more at risk - can connect and maintain healthy personal relationships?

· Can design address the tension between economic drivers and health concerns? The profound changes required for businesses to reopen has been an enormous task, particularly in the hospitality sector, airlines, retail and collaborative workspaces, all of which rely on close proximity to operate at a profitable level.

We have seen incredible and rapid innovation across the globe. In the restaurant industry alone, we've seen creative outdoor eating solutions, eating pods that shelter diners from other tables, and ghost kitchens cropping up to meet the demand of food delivery apps.

It is, however, important to remember that many of the solutions are born of necessity - often the invention of resourceful business owners, implemented without testing or feedback from design professionals. In the weeks, months, and years ahead, we will need to vet ideas, adapt solutions, and create a series of best practices that will allow businesses to thrive under conditions now and well into the future.

• What happens next? COVID-19 is far from resolved. And, while we all have hopes for a vaccine, the truth is that this isn't the first time and it won't be the last time. What can we do today that will allow our communities to remain resilient? How might we create a built environment that can be flexible and adaptable to all of the challenges that lie ahead?

The most important thing is to step back for a moment, gather the best ideas and minds together, and discover ways we can create an ecology that is adaptable, flexible, centered around mental and physical health, and, above all, helps to bind our communities together to strengthen the relationship bonds that are so critical to our existence.\\

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