For Creative Cities, the Sky Has Its Limit

It's not enough to build tall if people aren't thrown together to interact—just look at Shanghai vs. New York



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Shanghai's skyscraper district is ultradense, but New York, London and Milan are better at promoting innovation.

Ours is the century of the city. For the first time in history, more than half of the people in the world, 3.3 billion of us, live in cities. By 2050, according to the best projections, urbanites will account for as much as 70% of the global population.

Over the next 50 years we will spend trillions of dollars on city building. The question is: How should we build? For many economists, urbanists and developers, the answer is simple: We should build up. But the answer is more complex than that.

Researchers at the Santa Fe Institute have been able to demonstrate that bigger, denser cities literally speed up the metabolism of daily life. Larger beasts may have slower metabolisms in the animal kingdom, but the opposite occurs in cities, which get faster as they grow. Doubling a city's population, the Santa Fe researchers found, more than doubles its creative and economic output, a phenomenon known as "superlinear scaling."

Still, density is only part of the solution. In the hyper-crowded skyscraper districts of Shanghai, densities can approach 125,000 people per square mile. Giant buildings often function as vertical suburbs, muting the spontaneous encounters that provide cities with so much of their social, intellectual and commercial energy. People live their lives indoors in such places, wearing paths between their offices and the food courts, always seeing the same people.

In terms of innovation and creative impetus, Shanghai pales in comparison to New York, London, Paris and Milan, not to mention high-tech hubs like Silicon Valley, the Bay Area, Seattle, Boston, Austin and North Carolina's research triangle, all of which have much lower densities.

It turns out that what matters most for a city's metabolism—and, ultimately, for its economic growth—isn't density itself but how much people mix with each other. And there isn't just one formula for that. It can happen in the pedestrian-oriented sidewalk culture of New York and London but also—to the chagrin of many urbanists—in the car-dependent sprawl of a suburban nerdistan like Silicon Valley. That region, as Jonah Lehrer has pointed out, manages to emulate the functions of bigger, denser cities by encouraging the clustering of talent and enterprise and fostering a high level of information-sharing.

In fact, there are two types of density, according to a recent study by Peter Gordon of the University of Southern California and Sanford Ikeda of the State University of New York, Purchase. "Crude" density is achieved by districts packed with taller and taller buildings but doesn't, on its own, generate innovation or economic development.

By contrast, what the authors call "Jacobs density" sparks street-level interaction and maximizes the "potential informal contact of the average person in a given public space at any given time." It makes networking and informal encounters more likely and also creates a demand for local products and diversity—not just of populations and ethnic groups but of tastes and preferences.

The authors dub it "Jacobs density" in tribute to Jane Jacobs, the renowned urbanist and author of "The Death and Life of Great American Cities." She famously said, "In the absence of a pedestrian scale, density can be big trouble."

Look at New York City. Its hubs of innovation aren't the great skyscraper districts that house established corporate and financial headquarters, media empires and wealthy people (an increasing number of whom are part-time residents who hail from the ranks of the global super-rich). The city's recent high-tech boom—500 start-ups in the last half decade, among them Kickstarter and Tumblr—is anchored in mid-rise, mixed-use

neighborhoods like the Flatiron District, Midtown South, Chelsea and TriBeCa.

Google's New York office, second in size only to its headquarters in Silicon Valley, is in the old Port Authority terminal building across from the Chelsea Market, for which it paid \$1.8 billion in 2010. These neighborhoods are filled with the sort of old buildings that, in Jacobs's famous phrase, new ideas "must use."

None of this is to say that New York should be preserved in amber. The move to increase density in Midtown East, for example, raising height restrictions to as high as 80 stories, will generate much-needed development in an area that's set up for it.

But balance is key. A great city needs a mix of neighborhoods and districts of varied heights and densities. And great care must be taken not to muck up those critical areas that spur true innovation and creativity. "Densities," Jacobs cautioned, "can get too high if they reach a point at which, for any reason, they begin to repress diversity instead of to stimulate it." It's a crucial lesson to absorb as our world grows ever more urban.

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