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ODD JOBS

PLACE IN THE SUN

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Building booms keep a lot of people busy—community boards, scaffolding specialists. They also provide a boost to the shadow business. Michael Kwartler runs a nonprofit organization called the Environmental Simulation Center, which makes shadow studies, disclosure documents required for buildings that could block sunlight near parks or historic places. He has worked on three of the city’s biggest new projects: Atlantic Yards, in Brooklyn; the rebuilding of the World Trade Center area; and the West Side tract known as Hudson Yards—this last being “the mother of all shadow studies,” Kwartler said recently.

Kwartler, a diminutive man with a blond mustache, was taking a stroll by one of his latest commissions, a building going up on a lot just south of Madison Square Park. (He works for everybody—developers, activists, city agencies.) It was a sunny day, and Kwartler was wearing light-adjusting glasses. In the park, a crowd was lined up in the speckled light next to Shake Shack, Danny Meyer’s hamburger stand. “By now, the shadows have pretty much receded from the park,” Kwartler said, looking around. “If you came in March, it would be colder, and there might be more people sitting on the benches in the sun. But right now there isn’t a discernible pattern, except for the sunbathers”—a group of shirtless men near the fountain, reading magazines.

In 1990, the Parks Council asked Kwartler, who was then an architect and urban planner with a thing for solar-heated houses, to come up with a plan for shadow-sensitive zoning. (According to the city’s building codes, a shadow is “a circumstance in which a building or other built structure blocks the sun from the land”—not the same thing as shade, which is caused by trees.) Kwartler started by mapping the shadows that already existed. He made digital models of buildings around city parks. Then, using software called a ray-tracer, he created images that simulated the sun’s light during the seasons when it makes the biggest difference—late fall and early spring. After several months, Kwartler’s company had produced a 3-D map charting the movement of most of the park-area shadows in the city.

Kwartler’s goal is to inspire an ordinance along the lines of the Japanese Nisshoken, or Right to Sunshine law, or England’s Law of Ancient Lights. “The British are fabulous,” he said. “They’ve had this rule, I think, since the time of William the Conqueror. It’s based on the common-law idea that if something has been happening for a period of time we have a right to keep it that way. So if I’ve had access to sunlight for a certain amount of time that we all agree to, then beyond that point you can’t take away my sunlight. Right? But we can negotiate, so if you want to pay me for the lost sunlight we could work out a deal.”

Kwartler calls his plan the “sunshine zoning proposal.” It draws on another British legal principle, the “grumble line,” which refers to the point at which an occupant starts to complain that his home is not getting enough light. Kwartler came up with a standard called the “green line”: the city will decide on the maximum level of shadow that it is willing to allow in a park, and that becomes the basis for zoning regulations. The city has not accepted Kwartler’s system so far, but he considers it an improvement on the shadow activism of groups like the Municipal Arts Society, which, in the nineteen-eighties, protested a proposed tower by the architect Moshe Safdie by covering the portions of Central Park they claimed would be thrown into shadow with black umbrellas. (Kwartler called their tactics “just hokey.”)

Kwartler stopped across the street from the construction site: at the outset of the project, the developers had asked him to compare the shadow cast by a low, squat building with that cast by a tall, skinny building that had the same square footage. “It’s kind of counterintuitive,” he said. “Everybody likes to say that a tall, skinny building is going to have the worst shadow. But actually a low building is the one whose shadow is going to last the longest.” In Kwartler’s model, the tall tower’s shadow creeps across the southeast corner of the park at 10 a.m. Shortly before noon, like the

line cast by a sundial, it falls briefly on the crowds in front of Shake Shack, before moving east toward Madison Avenue. “It’s almost like Einstein,” he said. “The two shadows start at the same time, but this one is moving faster at a much greater distance.” With his advice, the developers decided to build a tall, skinny building.

“Lecturing about shadows?” a voice behind Kwartler said. It was an architect friend who had been on her way to Shake Shack with her husband. Kwartler advised them to skip the line and get takeout from a place nearby. After they left, he said, “I don’t think too many people would be waiting in line here if there was a low, squat building across the street. You’d be standing in its shadow. There wouldn’t be any warmth on your body.” It was a hot day, though, so when the architect and her husband returned with sandwiches they found a spot in the shade. ♦
