

REVIEW; A model for fresh thinking; A subtly dramatic research center on UCLA's campus offers intriguing lessons for planning citywide.

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UCLA's California NanoSystems Institute, or CNSI for short, is the first Los Angeles project by the New York-based architect Rafael Vinoly. It is something of a stealth building. Its broad, low facade, overlooking the Court of Sciences near the southern edge of the UCLA campus, has a modesty that borders on the bland.

Sure, the cantilevered glass-and-metal box protruding from the third floor is enough to catch your eye. So is a ground-level auditorium, in the form of a squat drum, edging out toward the pedestrian walkway that runs along the front. But the overall composition is almost apologetically competent, with just enough brick detailing at the corners to guarantee it won't stand out from its neighbors.

Around back, though, the design turns into something altogether different and more fascinating. The building, which covers 189,000 square feet and had construction costs of \$103 million, sits on a tricky site. The land falls away steeply as you move from the Court of Sciences back toward the west, and right behind the site an existing six-level parking structure is built into the slope. The way Vinoly's building deals with these challenges -- and with the needs of the CNSI itself, which brings together a range of scientists and private companies working on nanotechnology research -- ultimately produces one of the most compelling architectural set pieces in all of Los Angeles.

Of the nine full-service University of California campuses, UCLA has both the smallest land area (419 acres) and the most built square footage (24 million), making it by far the densest of the UCs. Even a quick conversation with Jeffrey Averill, the campus architect -- he's responsible for overseeing the design of all new construction at the university -- will convince you that planning at UCLA has become a microcosm of planning in Los Angeles, with elbow room and architectural freedom giving way to infill on complicated or compromised sites. The southern half of the campus, in particular, has seen a construction boom over the last decade requiring architects to squeeze massive new science and medical buildings into relative nooks and crannies.

Among the biggest questions Averill faces is what to do with UCLA's many parking structures. Although parking remains at a premium at UCLA, the university's planners and architects have also grown increasingly covetous of the prominent pieces of real estate garages occupy. Of those 24 million square feet of built space, nearly a third -- 7.6 million -- is dedicated to parking structures.

Vinoly's strategy in solving these various issues, both from a practical point of view and for the architectural opportunities it opens up, is highly inventive in a gymnastic sort of way. His client needed about 11 stories of space: four for underground mechanical systems and other facilities plus an additional seven for laboratories, interstitial support areas and a lobby and auditorium at grade. The architect could have proposed a slender tower with the labs stacked above the sunken floors. But his previous work on lab buildings -- his firm has become a leader in this increasingly vital corner of architectural practice, designing the Janelia Farm Research Campus in Virginia and a National Institutes of Health project in Maryland, among other big-ticket projects -- has convinced him that verticality tends to kill scientific collaboration. On top of that, Averill might have vetoed a tall building in this location as incompatible with the surrounding architectural context.



Brad Feinknopf

What you want instead for this kind of project, Vinoly argues, is an open horizontal form where scientists have to walk along wide corridors and through courtyards during a typical day, running into colleagues by chance and exchanging ideas. It is hardly a new principle: Louis Kahn's stunning Salk Institute in La Jolla, finished in 1965, helped make that kind of lab architecture popular.

At UCLA, though, a low-lying, earth-hugging building with a Salk-style courtyard was simply impossible: The site wouldn't allow it. So Vinoly did the next best thing: He took three floors of lab space and proposed building them as a stand-alone wing at the back of the site, where they are suspended over the top of the parking structure. Then he connected that three-story wing to the main building with a series of crisscrossing ramps, creating a dramatic, bottomless courtyard that provides the opportunity for the chance meetings that both Vinoly and his client were looking for. The result is a horizontal building by highly unusual, almost preposterous means -- a building that is roughly three times as wide in the air as where it meets the ground.

The ramps also operate as a metaphor for connection in increasingly atomized Western culture. As we spend more time in our professional and personal niches, both online and in the so-called real world, we risk losing the serendipitous exchange of ideas that lies at the heart of any city or university campus. The whole institutional idea behind the NanoSystems Institute, one of four special institutes created by the state to foster innovation in scientific research, is to bring together researchers working on nanotechnology in a wide variety of disciplines -- and to pair academia with industry to bring promising developments at the molecular level more quickly to market.

The hanging ramps in the building's courtyard take those abstract goals and make them architecturally legible. They also suggest that the rich interaction we used to take for granted in urban and university settings may now have to be, well, staged.

When you stand on the top of the parking structure and look up at the ramps, the view suggests a mash-up of Piranesi, Dr. Seuss and a video game. When you stand on one of the ramps and look down, seeing the roofs of cars through a maze of crisscrossing beams, the effect is equally odd and remarkable. If I led architectural tours on the UCLA campus, I would end every one of them here.

Vinoly's design also has intriguing things to say about the role of the parking garage. If CNSI needs to expand in years to come, it can do so simply by adding another three-story lab wing over the parking garage, with a second open-air courtyard and hanging ramps to go with it. There is actually room, Vinoly says, for three more of those wings along the garage's rooftop.

Over time, then, the CNSI building could essentially entomb the parking structure -- and with it the notion that on this campus the car is king, visible everywhere, its authority unchallenged. That idea, when you stop to consider it, is far more thought-provoking than any architectural fireworks Vinoly might have devised for the front of the building.