

ROGER SHOWLEY | SMOKESTACKS & GERANIUMS

Bright ideas

UCSD students come up with fresh solutions to nagging urban problems

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For his senior project, Kevin Highland studied the value of public art on utility boxes and murals in deterring crime. (Earnie Grafton / Union-Tribune) -



Christine Wang looked into pervious pavers as an alternative asphalt on parking lots to reduce urban water runoff into storm drains. She chided UCSD for not taking the lead in this field. (Earnie Grafton / Union-Tribune)



Andrew Goodrich, a UCSD senior in new urban studies and planning, found that architecture has some bearing on the success of subsidized housing projects. (Earnie Grafton / Union-Tribune)

Good design or public art equals less crime. Community gardens trump public parks. Asphalt parking lots can be made more environmentally friendly. And high-speed mass transit is a better investment than additional freeway lanes.

These and other big ideas are among this year's "grand challenges" research projects completed by 54 urban studies and planning students at the University of California San Diego.

At Urban Expo XIX on campus earlier this month, Keith Pezzoli, director of field studies, praised the findings as coming from some of San Diego's newest generation of the best and brightest:

"The talent in this room is truly amazing and obviously with all the problems we face with the economic crisis, we'll need that talent."

The undergraduates, mostly aged 21 or 22, did not uncover any secrets or arrive at any startling revelations. But their fresh look at old urban conundrums may shake up some traditional thinking and lead to reforms in many areas of San Diego policy and practice.

For example, Andrew Goodrich, 22, of Palmdale collected crime and census data on three subsidized housing projects, two in Los Angeles and one in San Diego, to see if there is a link between architectural design and social behavior.

"Architecture is a factor, an important factor, but obviously not the only factor," Goodrich said.

He found that garden apartments with isolated hallways and poor security arrangements seem more prone to crime than town houses and New Urbanism approaches that promote walkability, porches, shared spaces and eyes-on-the-street surveillance by neighbors looking out for each other.

Perhaps most importantly, Goodrich observed that architects shy away from designing low-income housing projects because they lack star-status of skyscrapers, iconic museums and other high-profile developments.

“Given the ill fate of the well-intentioned housing officials,” he said, alluding to public-housing controversies of the years, “it is no wonder that architects and designers have been reluctant to expand their repertoire and enter the realm of affordable housing.”

Teddy Cruz, a UCSD professor and architect specializing in affordable housing projects, agreed that many architects do not develop an expertise in designing low-income developments.

“There continues to be a huge gap between social responsibility and artistic experimentation,” he said. “I’m interested in closing that gap.”

Kevin Highland, 22, of Hacienda Heights wanted to see if public art deters graffiti.

“Oftentimes, in the form of murals on walls or utility boxes, they effectively reduce the amount of room and opportunity available to a tagger,” he wrote. And as a bonus, public art boosts “community identity and pride.”

Highland didn't just drive around looking for examples. He used a geographic information system computer program to plot crime incidents and public art installations.

In North Park, for example, he found that more than half the decorated utility boxes exhibited some graffiti or vandalism, but “all 14 of the unpainted utility boxes were hit.”

“This is a clear sign that there is less of an incentive to tag surfaces that are painted,” he said.

Some parks in urban neighborhoods become centers of crime activity – not to mention burdens on overstressed city maintenance budgets.

Tamara Geiger, 22, of Sonoma found one solution that has the potential to improve health, food quality and community pride – the development of more community gardens. She focused on the 2.2-acre New Roots Community Farm in City Heights, being developed by the International Rescue Committee.

“They are not only cheaper to start and maintain than traditional park spaces, but also provide a multitude of other benefits,” she said in her paper. “These benefits include improving urban food security, increasing economic diversity, providing a new space for recreational activity and to cultivate community cohesion, (and) improving dietary diversity and health.”

Geiger doesn't advocate an all-or-nothing approach to parks and gardens. Inner-city parks are still desperately needed, she said, but small, leftover spots like the New Roots farm site are ideal for growing fresh vegetables that can be sold in the neighborhood.

As positive as community gardens might be, she warned that “bureaucratic red tape” and a “costly permitting process” will hinder the development of many other sites unless city ordinances and procedures change.

New Roots spokeswoman Ellie Igoe said the garden will open in about a month under a three-year permit from the city. There already is a waiting list for the 80, 600-square-foot plots.

Christine Wang, 21, of Cerritos, has a part-time job at the county's Planning and Land Use Department in Kearny Mesa and came upon an experiment in making parking lots more “green” as a research topic.

The idea is to install pervious pavements that allow urban runoff to trickle below the surface rather than flow into storm drains and pollute bays, rivers and streams.

But as always in such innovative projects, environmental improvement costs more in startup costs – 30 percent to 40 percent more in this case – even if the public saves long term.

However, Wang discovered that efforts to promote green building standards sometimes work at cross purposes. The LEED rating system for green building, for example, does not appear to reward owners for installing pervious parking lots in the same way it grants bonus points for green building technologies.

“While UCSD has attracted headlines for their outstanding green initiatives ... ,” she wrote, “UCSD's sustainability metrics do not value green stormwater solutions over green energy solutions.”

Dave Weil, assistant facilities management director, said heavy vehicles make it difficult to install pervious pavements on campus, but he is looking for places where they could be used.

One other transportation-oriented study came from Tim Lo, 21, of Hong Kong. He argued for shifting money from highway construction to high-speed rail in Southern California.

“It will generate huge economic benefits for the society in three ways – financial, social and environmental,” he said. “Other intercity rail systems around the world have already demonstrated success.”

However, he acknowledged the resistance to mass transit after interviewing riders at several Coaster and North County Transit stops.

“Many citizens are forced to wait at the existing transit station for a very long time before they can hop on a transit (vehicle) and proceed from their origin to their destination,” he wrote. “Hence, there is no incentive for any citizens who can afford their cars to switch their commuting style into riding trains.”

His solution: more frequent service – though he didn't offer any suggestions on how to cover the additional operating costs.

Like many of his fellow students, Lo intends to use his undergraduate training and research interest to make a career out of mass transit planning and development.

“I’m going to go back to Hong Kong for a job in planning, especially transportation planning,” he said. “In China there’s a lot to do in infrastructure.”

And so there is in San Diego.

Smokestacks & Geraniums is an occasional look at the growth and development issues as they relate to historic trends in San Diego. The name is derived from a 1917 San Diego mayoral campaign pitting quick-fix forces against advocates of long-term planning.

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