

# SAVING GRACE

A SMALL EXPERIMENT BY TWO ARCHITECTURE STUDENTS  
LED TO A BIG STRUGGLE FOR THEIR NEIGHBORHOOD

RAJ MANKAD  
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The CES Environmental Systems site is easy to miss. The small building and gate at the front do not announce themselves as villainous. “Environmental Systems” sounds vaguely green and ecological, after all, like a windmill factory. But when I turn on Grace Lane, which runs to the side of the deep CES lot, the fumes hit me. They don’t burn my throat exactly. They are not sulphuric. They are not like sewage or the wet, flatulent smell of paper mills. It’s more as if I’m breathing inside an inflatable air mattress.

Grace Lane itself is a narrow street of single-family homes built in the 1930s and ’40s interspersed with small churches, an apartment complex, vacant lots, and newer homes. In the late 1960s, the area flipped from being exclusively working class and White to predominantly Black.

Near the end of Grace Lane is something unexpected: three contemporary structures set in a lush garden dotted with abstract sculptures. The concrete and steel buildings are home to Mark Schatz and Anne Eamon, and the offices for their firm, m+a architecture studio.

The front building is only 900 square feet in area with a one-car garage on the bottom and a roof that curves into the shade of the pecan trees. Anne answers the door wearing her baby in a sling. She has the no-makeup, educated look of someone you would see in a Whole Foods parking lot. She leads me up the stairs, which is topped by a “sky garden” with carefully placed views of the trees. The plan for the house is simple. It is a one-bedroom home. But, as Mark later tells me, “it has a lot of clipped out corners, changes in height, changes in materials, so it is almost like a jewel box.”

Mark joins us. He wears a gray turtleneck and black pants, and holds his frame bolt straight. His hair pokes out in different directions. He does the talking mostly at first. Anne seems to channel her energy into him. She shifts or interjects with a “well” or “I’m not sure it happened in that order,” and Mark corrects himself. They are in tight sync.

On July 7, 2009, Mark saw a man pulled from a CES building with 70 percent of his body covered in third-degree burns. Mark shows me the “pictures I’m not happy I took.” He shot them from his rooftop deck with a perfect bird’s-eye view of CES. He shot fast. As he taps on his keyboard, the images turn into a stop-action movie.

“You can see I’m shaking,” he says, but Mark doesn’t appear to be shaking at all. During the many hours I interview him, he always seems steady and measured. “It sounds like pulp fiction, which is why I’m so focused on the documented facts,” Mark says. He wants to come across as normal. But for Mark, I realize, there is no normal. There never has been normal.



**"THEY HAD NO WAY OUT. THEY HAD NO RESOURCES. THEY HAD NO FINANCES. THEY HAD NO NOTHING."**

"More David Lynch than Norman Rockwell," Mark says about his childhood. His father was a quintessential Houston man—an oil company statistician turned real estate speculator who moved the family upwards of 60 times. Mark remembers his father driving him in a pickup from job site to job site, and that the carpenters and plumbers hired by his father doubled as babysitters. The houses they lived in were themselves fixer-uppers that Mark's family then collectively flipped.

When I ask when he went to college, Mark smiles and replies that he was at the University of Houston "in the '90s." As a freshman, he took architecture courses, thinking they would focus on the details and practice of construction, which he already knew well. "I thought architecture was about building," he says. Instead, he experienced an "awakening" to architecture as "a multidimensional social and political enterprise." Like a true convert, Mark embraced the idealism of his professors to an extreme, calling his student self "highly combative."

Anne, born in 1972, describes her childhood as very much a Norman Rockwell scene. Her mother taught music classes and exposed her to the arts by enrolling her in classes at the Museum of Fine Arts, Houston. She gravitated to architecture because it combined the arts with analytical rigor and mathematics.

Mark and Anne first crossed paths in a class taught by John Zemanek, who in the 1970s helped pioneer courses that took architecture studios into poor communities. After six months of dates to museum exhibitions and lectures, and after making furniture together, Mark and Anne bought the land on Grace Lane through an auction in 1997.

They found the three contiguous 50-foot-by-100-foot lots in the newspaper. It was a property of the U.S. Department of Housing and Urban Development (HUD). The original house had burned down, leaving a vacant lot shaded by mature trees. They thought the proximity to the University of Houston lent itself to student housing.

"It was pretty quiet, being a dead-end street. There was really no activity," Mark says. The industrial lot behind the property was scarcely used. Occasional trucks were washed and rinsed back there.

They paid all of \$2,350 for the land. That comes to 50 cents per square foot.

As for construction costs, they used a student loan.

"We had figured out how to pay [for classes] because [the loan payout] had happened after tuition was due," Anne explains.

Mark says that the student loan "got around the whole mortgage industry." Without an attached garage, a fireplace, or any of the other "comparables" that loan officers use to evaluate the potential value of projects, the experimental one-bedroom house that Mark and Anne designed as students

would never have received a loan. In addition to the unconventional design, the street was in a former "redline neighborhood." Once Blacks had moved in during the late 1960s, property values dropped, insurance companies refused to back loans, and Whites fled.

Their financial workaround freed them to pursue their ideals. "We believed that it was your duty to act the way you talk about design and social constructs and architecture," Anne says. "Do what you say."

Mark concurs. "That's something that bothered me a lot when I was a student at UH. They talked one way, but the way they lived didn't line up with the rhetoric."

"This leads to many problems," Anne says dryly about their insistence to walk the walk.

In 1993, Mark had attended a lecture by Samuel Mockbee and another by Glenn Murcutt, both organized by the Rice Design Alliance. The lectures fanned Mark's idealistic flames. Mockbee, who died at 57 in 2001, is a legend among idealistic architects for his co-founding and leadership of the Auburn University Rural Studio program in Hale County, Alabama.

"The great thing about Mockbee that was so compelling to me as a student was this idea that your contribution doesn't have to be the commitment to the Big Idea," Mark says. "It could be the commitment to the smaller thing, and if everybody committed to the smaller thing, by the process of accretion, it adds up to a bigger thing."

"An even more painful idealism," Anne quips while their baby sleeps on her shoulder.

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The two newlywed students set to work building their first house on Grace Lane with their own hands. The house was drawn in 1997, and the concrete foundation was poured in the fall of that year. By spring 1998, they had a wood frame. By summer 1999, once the A/C and Sheetrock were installed, they moved in. Meanwhile, one of Mark's instructors hired him straight out of class, and Anne ultimately worked for the same firm. They came home at night to an incomplete house, and installed light fixtures and cabinets before going to bed.

In 2003, Mark passed the Architecture Registration Exam. Once he received his license, the house became eligible for an award offered by the Houston chapter of the American Institute of Architects (AIA Houston) and it won. *Cite* had already featured the house on a cover in 2002. *Dwell* covered the house in January 2005.

"Suddenly, we got all this exposure for this thing we were doing on the side," Mark says. "We thought maybe now is the time to start our practice." Mark quit his job, and in Spring 2005 they started the design for the studio.



ABOVE *CES Environmental fence line*  
from *m+a architecture*.

And it is in that studio that Mark shows me the permit application filed by CES in 2003. He spreads out official documents, photocopies of city reports in Courier font with key lines of text highlighted in yellow.

A trucking company owned the site behind Mark and Anne's property. In the early 2000s, the land was bought by CES Environmental, which filed for new permits to process various kinds of chemical waste. An official letter was sent to all of the residents in the vicinity.

"We were the only people who filed against the permit," Mark says. They drew on their training in architecture school and carried out a basic site analysis. They pointed out to the state that within 100 feet of the site were two church schools and a Head Start program. Within 1,000 feet was a public elementary school. Furthermore, at the time, the site was not properly graded. The parking lot drained into the neighborhood.

The permit application was handled through the Texas Railroad Commission—this was before the creation of the Texas Commission on Environmental Quality (TCEQ). The permit was delayed by Mark's and Anne's objections, but was eventually approved.

Initially in 2004, only eight to 10 men would be working on site, "grubby-looking dudes washing out trucks or driving forklifts." The company

operated on a very small scale. In 2005, however, activity at CES picked up. A tank farm and processing facility were built. The number of employees jumped to approximately 30. "The truck traffic got insane," Mark says. "There was one truck every 10 to 15 minutes." The noise became a major nuisance. Trucks rumbled in and out as late as 3 a.m.

**"THAT'S OUR PIECE [OF THE PUZZLE.]  
WE PUT OUR INFORMATION TOGETHER  
AND DESTROY THE CES ILLUSION."**

Mark and Anne wondered what they had been thinking to build in that part of town. They had only just begun launching their firm from the site, starting the studio design coincidentally with the CES construction in March 2005. They could have cut and run without losing money. Or they could have hit the pause button. Instead, they doubled down.

At this point in the story, Mark's reserve breaks, and he says, "It made us so incredibly angry in talking to our neighbors who didn't have that kind of opportunity. Basically, they had this blight that moved into the neighborhood, and they were stuck. They had no way out. They had no resources. They had no finances. They had no nothing. I think that was kind of the challenge and response. For good and bad, I'm one of those people who, when confronted with a crisis, my first response is to strike back."

In December 2006, Mark and Anne saw police at CES.

"I went to the building department and did an open records request,"



Mark says. “When I got to the end of the stack, [I find] this.” He points to a photocopy with four lines highlighted that read:

“12/13/2006 284\* ASSIST HPD MAJOR OFFENDERS INV. ED RUTLAND ON WARRANT TO SEARCH PROPERTY FOR ILLEGAL DUMPING. FOUND PIPES GOING INTO THE GROUND FROM THE CHEMICAL WASTE TREATMENT BUILDING. IT IS UNKNOWN WHERE THESE PIPES GO TO. FURTHER INVESTIGATION IS BEING DONE AT THIS TIME BY COH WASTEWATER, TECQ, AND EPA. IT IS BELIEVED THAT THESE LINES DISCHARGE INTO THE SANITARY SEWER.”

Subsequent testing using a dye and a camera determined that the company was dumping waste directly into the city’s sewage system.

“I start calling all the city agencies,” Mark says. “None of the agencies know what the others are doing. That’s our piece [of the puzzle]. We put information together and destroy the CES illusion.”

In 2008, just before Hurricane Ike hit Houston, Mark obtained key documents from the Wastewater Department. In one account written on City of Houston letterhead, dated Feb. 9, 2007, the Department of Public Works

and Engineering details the levels of oil and grease, zinc, 2-butanone, acetone, and phenol found in the sewage water downstream from CES. These chemicals, it notes, “could endanger the health and safety of the City’s workers in the collection system” and “caused the City to violate its discharge permit from the Texas Commission on Environmental Quality.” In other words, CES forced the City into violation of state and federal clean water standards. The City’s facilities could not handle the contaminants illegally dumped by CES.

After CES was caught dumping and tampering with the monitor, they resorted to diluting all the contaminants they poured into the City system. As a result, their water usage skyrocketed. CES was authorized to use 3,692 gallons of water per day. Between December 2006 and January 2007, CES discharged 216,000 gallons of water per day. As a result, the City’s sewer system overflowed downstream.

CES escaped with a \$261,133.32 fine, a fraction of the cost to City taxpayers for the water alone. The real cost is beyond estimation. For all the press CES received in later years, no newspaper or broadcast reported on the period of its dumping operations from 2003 to 2007, which was likely the most damaging to public health and ecology in the Houston region.

The quality of life issues that did receive press attention came up after the City figured out that CES had dumped chemicals straight into the sewers. Prevented from continuing that illegal practice, CES began to truly process chemical waste in 2007. Matt Bowman, one of the owners of CES, took over management.

“This is when the story gets really sad,” Mark says.

The smells became so sickening that the couple could not go outside. Anne and Mark’s new live-work spaces were tightly sealed, so when they were inside, they didn’t notice. The

older houses around them were porous, however. Judy Jones, who Mark describes as having been “pushed over the edge” by the horrible smell, gave quote after quote to the *Houston Chronicle* about the effect of the smell on her health. In an Oct. 7, 2008, article in the *Chronicle*, Jones says, “There’s no escape,” and complains of headaches, eye irritation, and stomach cramps.

Despite the growing opposition from the neighborhoods and its history of dumping toxic chemicals directly into the sewage system, CES received an expanded permit from Texas. It took advantage of the loophole that once the state approves an initial permit, the public has no way to intervene in the expansion. As a result, polluting companies in Texas can bait and switch neighborhoods during periods of public comment by applying for small-scale operations and dramatically increasing the scope of the work later on.

In October 2008, television cameras covered protests by neighbors. New Black Panther Party leader Quanell X was called in by residents of Grace Lane, and he lent his instant media-circus-generating power to their protests. Residents alleged that CES had instructed their employees in hard hats to block driveways with trucks and videotape neighborhood meetings.

Around that time, Mark met with the Fire Marshal, who was dismissive until he saw Mark’s maps showing the setbacks required by City fire

codes. In response, water barrels were placed to keep trucks from backing up beyond the required setbacks. And given what happened subsequently, the enforcement of those codes may well have saved lives.

“I was outside in the yard,” Mark says about the first explosion, which took place on Oct. 2, 2008. His University of Houston architecture class was scheduled for a visit to the studio and house. Another explosion on Saturday, Dec. 6, 2008, broke windows and left chunks of metal everywhere, including an enormous triangular piece of metal, about four feet in length, stuck in the ground like a Dorito in dip. After a third explosion Dec. 16, Mark dialed 911 and added a call to OSHA for good measure.

On Dec. 30, 2008, Mark presented the collected findings from various city departments to City Council in the form of bound books. These made it painfully clear that the City had failed to speak to itself. To compensate, in the generalist and totalizing tradition of architects, Mark and Anne connected the dots for the Mayor and City Council. They brought together air quality studies, sewage investigations, safety violations, and fire codes.

After that meeting, City Councilmembers Jolanda Jones, Wanda Adams, and Ada Edwards; State Representative Garnet Coleman; Mayor Bill White; and two persistent city attorneys helped force the State of Texas to make an about-face. Officials went from granting CES ever more expansive permits to investigating and prosecuting the company. The City also sued CES and settled with the company for \$102,000. Mark and Anne had the sense that the situation would improve.

“What the f\*\*\* now?” Mark said when he heard an explosion from his desk. It was July 7, 2009, and this was the fourth explosion in less than a year. He looked through a back window. Then he went to the “tea room,” his third-floor room with access to the roof of the other house. He called 911 once again.

In the first photograph he took of the scene unfolding below him, shot like all the rest with the eye of an architect, perfectly framing the site, the tank farm is to the left, and a worker races from the right to the warehouse, which has a smoking hole blown through the roof. In a subsequent photo, oxygen tanks are wheeled in. Then the oxygen tanks fall over. Then a fork-lift shows up, and a crew starts setting the oxygen tanks upright. All this time, while they go through this Three Stooges routine, their co-worker is lying inside the warehouse covered in burns. You can see the back of a metal cylindrical tanker truck in the photos. They learn later that the fatally burned worker had opened the hatch on the tanker and switched on his flashlight to peer in. A spark from the flashlight set off a flash fire. No one is sure if the tanker was mislabeled, but if it had been correctly labeled, the worker would have known to take the proper precautions and keep his flashlight off. We may never know what exactly happened in that fatal explosion on Grace Lane. Investigations focused on two other tragedies.

“You know they had a fatality in Port Arthur,” a former CES employee told Mark and Anne, giving them a copy of the funeral program. The very existence of a Port Arthur facility was news to Mark and Anne. The cover of the funeral program reads, “In Loving Memory, Joey W. Sutter, July 4, 1972—December 18, 2008.” Given that he was born on the Fourth of July, it’s hard not to ask whether Sutter’s death carries a larger message about the failures of our city and nation to live up to our great ideals of equal opportunity and fairness. At the age of 36, Mr. Sutter had several children and a grandson. According to the Port Arthur coroner, he died due to exposure to hydrogen sulfide.

In August 2009, the EPA raided the CES facilities behind Grace Lane

and in Port Arthur on the same day. During the raid itself, a container burst into flames at Grace Lane, forcing an evacuation of the facility. All residents on Grace Lane had to stay indoors. Subsequently, the City forcibly cut the water supply. CES attempted to continue operations by trucking in water, but ultimately filed for bankruptcy. The bank that owned the company’s debt declined reorganization and opted for liquidation. In July 2012, the Department of Justice charged Matthew Bowman with conspiracy to illegally transport hazardous materials. The 13-count indictment describes a scheme in which hazardous materials were transported with false documents and no placards, resulting in the death of two employees at the Port Arthur facility, Joey Sutter and Charles Sittig. Initially, Bowman contested the charges, but in May 2013 he pleaded guilty and received a one-year prison term and \$5,000 fine.

One could argue that m+a architecture and CES Environmental are manifestations of the same phenomenon—the unzoned, cheap land, entrepreneurial “spirit” of Houston. The two great energies of Houston, the free-spirited artists and the free-market capitalists, here collided. They were neighbors, not by accident, but because they feed from the same trough.

Bowman did pay a visit to m+a architecture once. Mark says that Bowman accused him of “orchestrating a vast conspiracy” involving the Black Panthers, the Mayor’s Office, City Council, TCEQ, the EPA, the Texas Attorney General, METRO, and various civic club organizations, in addition to other City departments like Health and Human Services, Water, and Wastewater. As absurd as Bowman’s accusation is, it does point to exactly why architects have the potential to be super-citizens with the capacity to train others to empower whole communities.

Mark’s and Anne’s architecture practice survived the CES struggle and the recession. Things are looking up. The 2011 AIA Architecture Tour featured two houses of their design, a third tiny house for their village and a mansion in River Oaks. Mark was named the 2011 Ben Brewer Young Architect by the AIA Houston. In 2013, Mark received the award for Young Professional Achievement in honor of William W. Caudill from the Texas Society of Architects.

Those well-deserved awards raise a couple of questions. One is the problem of AIA awards only going to one person in a couple. (The recent petition calling on the Pritzker Prize to be given retroactively to Denise Scott Brown for her work with Robert Venturi did bring attention to the need for rule changes.) In addition, when these honors were bestowed on Mark, the struggle against CES was not part of the portfolio. Instead of cropping the defunct mini-refinery from the photo of Mark and Anne in front of their studio and house, let us include it—and call in the neighbors, too.

In Houston, whether we are artists or engineers, plumbers or architects, our daily bread is oil. The extraction and processing of hydrocarbons is still *the* industry. And that industry generates waste, which has to end up somewhere. CES apparently “processed” a variety of unfamiliar and scary-sounding chemicals, but there was one form of waste with a perfectly prosaic name—“motor oil.” In other words, CES isn’t someone else’s problem. Who doesn’t generate used motor oil? We are all in this together as generators of waste, as neighbors breathing the same air and drinking the same water, and as neighbors to those on the industrial fence line.

Changes in Austin could help prevent more tragedies, but until then there are the lessons of small idealism to be learned from a lane called Grace. 