

OPENING KEYNOTE ADDRESS: Tell Them I Built This: A story of community transformation through design, youth, and education

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Project H Design

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Good morning. I'm really excited to be here. Last time I was here, I was down the street at the Trustees Theater for all of five hours, while on a cross-country road trip. It's nice to be back and to have a little bit more time to spend here and to tell the story — and to do so as part of the theme of a conference. What I want to do is just tell the story, and hopefully provide a little bit of context and maybe inspiration under the theme of renewal.

I am the founder of this nonprofit organization called Project H. I was thinking this morning about the theme of “renewal,” what that means to me, and what that has to do with my own practice. I came from a background in architecture, and I was thinking about what I do now vs. why I got into architecture in the first place — which at the beginning was really about having grown up with a father who wanted to be an architect, living vicariously through that dream, being a math nerd, but also being really creative. Somehow architecture became this perfect storm for me.

But now, looking at Project H, and where my practice has evolved, I think the theme of “renewal” is actually really appropriate in that it's about reinvention and seeing possibilities — and always trying to be better. As a nonprofit, Project H was founded mainly based on that idea deeply rooted within me that as an architect that I wanted to do things that mattered. I wanted to do things that felt meaningful to me, and also to my community. I wanted to continue to push my own practice based on a constructive criticism around how I could renew and reinvent my own work.

Project H was founded in 2008. I had no business plan. I had \$1,000 and I was living with my parents. I had just quit the only job I had ever had that gave me benefits and a 401(k). I was there for three weeks, and then I left to start a nonprofit and move in with my parents. As I said, this came from this deeply rooted urge within me to do something that felt meaningful. Over the past five years, that's been as much of business plan as we've had. I still don't really have a business plan, but we have a vision and values that guide our work.

When we first got started — and I say “we” because it's myself and my partner, Matthew Miller, who is also an architect — this started with the sense that “we don't really know what we're doing, but we're damn well going to figure it out.” These small projects emerged all over the world. This is in Mexico City. It's a design of an easily sterilizable storage system for a Children's Hospital transplant ward. They're just small design interventions that could improve the experience for communities and groups of people that otherwise didn't have access, or maybe the desire to look to design as a resource.

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This is also outside of Mexico City, a really simple DIY furniture kit of parts for students that were going to school in these pretty dilapidated rural school facilities, but to give them back some ownership over their own learning environments.

And then this is a redesign of a foster care home in Austin, Texas. This is kind of a long story, but they were using converted janitors' closets where, when the kids are misbehaving or having mental or emotional breaks, they would put them in these rooms and close the door and like just let them scream until they were better. We worked with them. They have acknowledged that this was not the best practice, and so we did a research-driven design project to rethink what these spaces could be and make them more therapeutic and more about healing and calming — rather than these like punitive solitary confinement spaces.

And then this next project is still going on today. This is called *Learning Landscape*. It's an educational playground system that you can build in one day for free, if you can find 25 tires and some people willing to dig some holes. This came out of the school that you see here. This is a school for AIDS orphans in Uganda, and this is like the case study for this project. The space itself is really simple; it's just this grid of tires, and then we wrote this whole suite of games for algebra or basic addition, or social studies and vocabulary and foreign language, so that kids could be outside learning through game play and activity — rather than in the classroom. This was the first place that we built it, and now I think that there are 28 or 29 of them around the world, and a network of schools that are all talking to each other around creating new games, and which games they're using, and so forth.

In the midst of all of this work - and this is about a year into Project H - I had a really wonderful opportunity to write a book. I did not put this up here for self-promotion, but mostly to say that this is a really great chance for me to do my own research and be able to benchmark — in August, 2009 when this book came out, what was going on in the design world; where had we been; how far had we come in this emerging practice of humanitarian design, design for social impact, or whatever term we want to use, and where were the opportunities for us to continue to improve.

In all of these categories — education, energy, mobility, well-being — there are a series in mostly product design, but some service design and other initiatives that we're looking at and what I thought to be doing a pretty good job of using design to tackle big social issues.

When this book came out my editor said, "You know, you should really do a book tour. I could hook you up with some Barnes & Noble stores and you could go and do book signings." I thought: that sounds awful. What I would prefer to do — I was living in this Airstream trailer at the time — would be to turn the Airstream trailer into a mobile exhibition and drive around the country for three months, building it out as an exhibition of the products, accompanied by lectures and workshops. That's what we did.

My partner, Matt and I, we did 25 cities in 75 days — Savannah being one of them. That's the last time I was here. Yes, I mean, it was a nightmare in a lot of ways, but it was wonderful in that we got to put these products out into the world — if only because I wanted people to be able to pick them up and not just look at them on a sheet of paper, but also to gauge the same goal I had with the book project: I wanted to do my own research around how did people look at these things; how were they actually working and functioning in the world, and then consequently how could we as Project H react to that and improve and renew our own practice?

This is what we would call Project H 1.0. More recently, we've moved away from some of the smaller interventions, because we've stumbled upon something that I think is pretty special and we

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love doing it. It certainly is a renewal and rejuvenation of our own practice. I've now become a high school teacher and an educator around design and community.

INTRODUCING DR. Z

The next portion of the story starts with this man. This is Dr. Chip Zullinger. He is the former superintendent of the public school district in Bertie County, North Carolina. Has anyone heard of or been to Bertie County? Okay, one person. That's a pretty good reflection of what Bertie County is. It is two hours east of Raleigh, North Carolina — two hours west of the Atlantic Ocean. It is kind of the middle of nowhere. It is very much a resource-poor black hole in a lot of ways. I say that lovingly, having lived there for three years now. It is kind of a forgotten place in the geography of North Carolina, in the northeastern section. A lot of the counties in that area of North Carolina have a similar story, with an economic base of big agriculture, like cotton and tobacco production, but also extreme economic difficulty. A lot of the small towns are ghost towns. We've all sort of heard this story. Unfortunately, this is not really the exception to the rule.

This is downtown Windsor, which is the county seat. It's a town of about 1,500. I'm telling you all of this because this place sort of fell in my lap as somewhere that we were invited by Dr. Zullinger to come and work with him to use design to reinvigorate the school district. At the time I was based in the San Francisco Bay Area, and so this is the polar opposite of San Francisco in every possible way.

As a half-Asian woman from California, I was the black sheep in this place. That posed a lot of problems for our ability to do work, and also for my personal comfort level there. However, we were invited there by this amazing superintendent and we found this kindred spirit in a very unexpected collaborator. He cold-call emailed me and said, "You know, I saw some of your work with the *Learning Landscape* in *Dwell* magazine." I wondered: What school superintendent reads *Dwell* magazine? But that is awesome. I definitely think I want to work with this guy, and so he invited us down to build the *Learning Landscape* at the elementary schools.

We showed up there, and he has on the school site a backhoe and his maintenance crew with two guys named Otis and Woot. This is my introduction to Bertie County, where I know "I'm not in Kansas anymore." We built these playgrounds and then as soon as we finished, we felt as though it had been wonderful to meet this great superintendent, and it was really fun to do this, but now we're going to go back to San Francisco. He had other plans. He handed me his credit card and said, "We need three new computer labs, a weight room for the football team, and a countywide graphic campaign to advertise this new broadband program. Here is my credit card. Go."

This is the dream scenario for a designer, but also we're totally out of our element. I've never worked for a public school district as a client. I've never had someone's credit card. We didn't have an unlimited budget, but we definitely had a lot of leeway in what we *could* do. This is one of the computer labs that we did — another one. We wanted to bring design as an aesthetic, and then also as a way of thinking to the school district that otherwise was, as I said, countywide is pretty resource-poor.

Dr. Z was brought into this school district at a time when only 26 percent of their third through eighth graders were passing the state standard. The state basically said, "We're going to come in and take over unless you hire this guy as the fixer." He was in this mode: "this is fixable and I want to bring in unexpected and creative people to help fix it." We were some of those people. The weight

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room for the football team, and then this graphic campaign, which involved this giant blue dot that started to pop up everywhere to get people excited about this broadband campaign.

We went through all of these really fun projects. We're feeling like this is a really interesting place and an interesting space — a professional space to be working as designers — in this public school district and yet trained as architects.

We woke up one day and we had done all of these projects. We felt like we were on to something here, but if we really wanted to get serious about understanding what design looks like in tandem with public education, then we would need to step up and put it in the classroom. Matt and I decided that we needed to write a curriculum for the high school and become teachers, and move to Bertie County and teach this program.

CREATIVITY, CITIZENSHIP, CAPITAL, AND CRITICAL THINKING

This all seemed like a really great idea in the five-minute conversation as we were driving down the road. Then it ended up — we started talking about it more, and it made so much sense for this place and for our work, and for Dr. Zullinger's vision. Mostly, as I said in the beginning, I really want to continue to push myself and to encourage other creative professionals to push themselves to redefine our own job descriptions. Sure, my résumé said that I went to architecture school, but why can't I be a high school teacher?

We wrote this program called *Studio H*. We modeled it after Project H, which doesn't have a business plan — we didn't really have a structured curriculum. We had these four values — creativity, citizenship, capital, and critical thinking.

As we got to spend time in Bertie County, and as we got to know some of the students and teachers, these were the four things. We kept hearing like these are four things that the students need in order to be successful as young adults. These are also four things that the community really needs in order to survive — their economic decline, their huge racial divisions, their poverty levels and social injustices. These are four things that were lacking and were hugely needed, if they were ever going to get over these big hurdles.

The program itself, I'm sure that many of you are familiar with the program, *Rural Studio*, out of Auburn University. It's a design-build program within the architecture school offered to the undergraduate and graduate architecture students, and it's rooted in community-based design.

Matt and I were very much inspired by that program and thought that we're trained as architects and designers. How can we use what we know how to do as a platform for students to develop those four things — creativity, capital, citizenship, and critical thinking?

We wrote this program as a one-year program for high school juniors, where over the course of two semesters we would teach them everything from how to draw a hand-drafted floor plan to how to operate a bandsaw; how to lead a design brainstorm; how to pour a concrete footer; how to weld, but to do all of this under the umbrella of community development. I took a shop class in high school and I made a birdhouse for my mom, which was great and she loved it. If I'm going to learn skills that have that kind of actual physical value, I wanted to be able to teach it in a way that would also have value for the community. Over the course of these two semesters, we're building all of these skills, and then over the summer with our students we would hit the construction site and build a full-scale piece of architecture for the community. Again, this is the ambitious idea in our head, and we felt we could

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pull it off. We pitched this to Dr. Zullinger and he said, and I quote, “Sure, we could do that.” That was the extent of the conversation.

We wrote this program plan and we started teaching. In the midst of all of this, Dr. Z got run out of town by the torch-wielding school board members — but that’s a whole other story. We started the year without that advocate, and so the nature of the program changed very quickly. We had raised grant funding; we knew our students, and we were ready to roll. We wanted to prove that you could use design as a tool to engage kids in a different way to build real-world projects and to use the school as a source of community, rather than like the bane of the community’s existence.

The first day of school rolls around and this is about the time when Matt and I realized that we have no idea what to do with a roomful of teenagers. Then also around the same time, we realized that these students are coming off of ten years of a public education system that has failed them at every step. Most of them had never had an art class. Most of them — actually all of them — did not know how to read a ruler. Most of them were taking all of the rest of their classes online, including PE. They would come to us at noon or after lunch, having taken online math and Spanish and PE, and then coming into our wood shop space. That was a culture shock for us, in and of itself. This is part of their school day, too, so they’re in the like “I hate school” mode. We had to break them out of that and say, “Okay, you’re not taking online PE anymore. We need you to pick up that saw.”

We had a lot of hurdles just in the fluency around how do we get students excited that they’re in this different kind of learning environment? All of the foundational skills were lacking. We used green bell peppers to teach plan section and elevation, and about the color wheel — what is a color wheel? No one had ever seen it, and some of them didn’t know what the primary colors were. Why is that important? How is an understanding of complementary colors and contrast going to help us to communicate ideas better to the public? Then in the wood shop, let’s learn how to read a ruler, and then let’s learn how to read an architectural scale, and let’s learn how to lay out a shop drawing — and not cut our fingers off in the process. We wanted them to learn how to lay something out and then put it together in a really precise and careful and thoughtful way. It’s all of these foundational skills.

I can’t talk about architecture or designing a building for the community, if we don’t have that foundation to build upon. A lot of the beginnings were just building that fluency in the vocabulary around the tools and the skills.

Then this is where it got interesting. We have students who now know how to read rulers, and we’re thinking, okay, we need to start building some things. As any architect will attest to, what we do at our core is to respond to context. We wanted all of the work that our students were producing to be in response to the local context, and hopefully provide a more optimistic solution for what existed.

I’m sure that many of us have seen the documentary *Food, Inc.*, and we know some of the horrors of large-scale poultry farming. This is very much the heart and soul of Bertie County. The biggest employer is the Perdue Chicken Processing Plant. One of my students, Stevie, had 250,000 chickens in ten houses on his family’s farm. It was his job to go in every morning at 5:00 and suck up the dead ones with the giant vacuum cleaner. This is very much a reality for our students and for the community.

How do we as designers look at something going on locally, respond to it, and provide a better solution, but then also not alienate our students and their families in the process? This is their source of prosperity.

Our solution was to start with two classroom chickens — Henrietta and Jezebel. They lived in our classroom all year. The challenge was to acknowledge that this is the reality; we know that most

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people have 250,000 chickens in ten houses on their family farm. What would it mean to have six or eight chickens in your backyard as a source of sustainable food, as egg-laying hens instead of the Perdue broiler chickens?

The challenge was to design a beautiful chicken coop — not for Henrietta and Jezebel, but for their friends and family. Then we were going to three families locally that could most benefit from having these egg-laying hens as sustainable food; give them the chicken coops; put them in their backyard, and so then set them up with chickens and the whole shebang.

This is also their first attempt at any kind of form-making, and so to ask a 16-year-old to design a chicken coop from nothing was a really tall order. These are students coming out of a system where at most they're asked to do a worksheet; turn it in; they get a grade; they take a test, and they're done. There is no iteration. With design, however, there is no 'here's my first model. I'm done.' I would say: "Oh, that's great. Do it fifty more times." They looked at me like I was crazy.

Exercising a different muscle and saying to them "that is a great idea, but I'm sure you have fifty more, and I want to see all 50 of them" is a very, very different approach to the way that they were learning.

The three coops that we ended up building were a reflection of each one of the three teams with their vision and their material interests, and the family that they were designing for. This first one was inspired by this really beautiful sketch that one of our students did. It was this skewed pentagon that he developed, and developed, and developed, and then this reclaimed palette wood. They each had a \$500 budget. This team, Stevie on the left, suggested: if we use reclaimed palettes and we can get those for free and come in under budget, do you think that they'll let us keep the money that we don't spend? I had to say, "no, but I appreciate your creativity in that!"

The drawing evolved into a beautiful geometric prism. They had their first lessons in MIG welding. So fabrication involved both wood production and metal fabrication, and then this corrugated ribbon roof. This is the final coop with these big swinging doors. Not only were they designing for the needs of the chickens, whom they got to know very well since I made them sit and observe chickens for three days — again, they thought that I was crazy — but also taught them to recognize that they are designing for the needs of the person who has to tend to the chickens. These doors were intended to create easy access for the food and water area, and then the roosting box to collect the eggs. This is the Parker family to whom we gave the coop. They live around the corner from the school.

And then the second one is a very literal interpretation of the design brief. We gave them this list of requirements where it had to have space for food and water and space for roosting, and then protection from the elements and predators. This group said, "Okay, if we need two spaces, then we need a space for food and water and a space for roosting. That's two boxes. Then let's just find a cool way to connect those two boxes," and this is the model that they built.

I love this picture because five seconds after I took this picture, they're trying to get this thing to stand up. I took the picture, and then the whole thing fell over; that little A-frame that you see, that piece of metal that's holding up that upper box collapsed, and the whole thing fell over. The two of them looked at it. They cocked their heads and said, "that's actually way cooler. We should just build it like that!"

I was watching this and thinking that if this had been five weeks ago, they probably would have looked at that as a huge mistake. They took the time to stop and look, and think "oh, that's another

possibility and that's actually a really good solution." That was like a watershed moment for me as a teacher, and I know it was for them as well, in that they were able to see that as an opportunity.

It's a really simple construction on this one. This is just wood framing. This is like shiplap siding, and then again the structural steel component for that run space between the two boxes. Then this is the twisted run between the two. The cladding on that, one of our students came in with this pickup truck full of these sticks. I asked him: "What the heck are those? Where did you get those?" There were maybe 500 of them. He said, "Oh, I borrowed them from my neighbor, the tobacco farmer. It's the sticks that they hang the strands of tobacco over to dry." And I'm thinking "borrow or steal?" Anyway, we had hundreds and hundreds of these sticks that we stained in the same color as the shiplap siding.

And then this is the final coop, which they called *Chicktopia*, a chicken utopia. This was given to the Barnum family, who coincidentally live right across from the Parker family with the other coop. As you're going down this road for about 20 miles, there is absolutely nothing, and then all of a sudden there are the two craziest chicken coops you've ever seen, right across the street from each other.

And then the third coop that we built — this is our Buckminster Fuller-inspired chicken coop. It is part of building a fluency around design and architecture that we gave each of our students a precedence study so that they could look at a piece of architecture that we thought of as successful in a number of ways; understand why the architect had made certain decisions about it; understand the materials and maybe the site plan; air and light flow, and so forth. This student, his precedence study was the geodesic dome and the Dymaxion House.

He looked at Buckminster Fuller's work and was just like obsessed with how you could take such simple geometry of the geodesic dome, for example, and turn it into something so complex. When he went to design his coop, he started with these flat pieces of cardboard. He was slicing and scoring them based on different geometries. There is a trapezoid over here, and I think there is an isosceles triangle up there; he was just twisting them into three-dimensional kinds of cool shapes and seeing where that could get him. This image shows five models of maybe sixty that he did, as he was trying to understand the material possibilities.

This is the model that he brought us. This is maybe 65 models later, and this is what he wants to build. He brings this to me and Matt. He tells us: "I'm ready to go, and this is what I want to build." Matt and I look at each other sharing the thought that it is so cool, but we have no clue how to build this. The other two were pretty straightforward but this one — again, because that started as a flat piece of chipboard. In real life, we're thinking: "okay, how do we go from this beautiful model to something that will stand up and be structurally sound — but honor the original integrity of this design?"

This one, I love this coop the most. I have no problem in saying that I have a favorite. It's because it was a total puzzle. For this group of students this was crazy, frustrating, totally nonlinear as a learning process, and we prototyped at the hinge for how this thing would bend probably ten times. We were in wood shop and it failed miserably, and then we had to go back to the studio and redesign it — and then build it again and see it fail again. This was a two-and-a-half week endeavor just to figure out how to get this thing to bend in the right way.

We finally figured it out. In the same way that the model started as a flat piece and it had bendable joints and it twisted up into this thing — we mirrored that exact same thing in plywood and sheet metal. Then we had a *Raise the Roof Day*, and it took every single one of our students to pick this thing up and wrangle it into the right shape. We're looking across the room at the model that's sitting

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there holding this thing above our heads. Okay, bend and pull that side down and push this side that way, and you move over there and someone give me a two-by-four. Eventually, it started to bend into place. We welded the steel frame to get it all dialed in and then rubberized roof paint to weatherize it. Then this is the final coop. What did they call this one? Coopus Maximus — and the team that built it, and for this team in particular, but I hope for all of them, because this is their first adventure in design or building.

FROM CHICKEN ARCHITECTURE TO PEOPLE ARCHITECTURE

What we did next, which I'll show, was to move from *chicken* architecture to *people* architecture. With this first project, I wanted to build their confidence that not only can we build things, but we can build *crazy* things, anything you can dream up. We needed that kind of optimism and hope going into this next one, the big build where we're going from chicken architecture to people architecture.

At the moment we finished the chicken coop project, this crazy flood comes through the county and destroys Windsor. Windsor is the county seat, and the whole town is under water. I took this picture after the water had started to come down, but basically every business was under water — not that there were many businesses there to begin with. This is the second flood in 15 years to destroy this town. Oh, by the way, there was also a second flood and an F-4 tornado in the ten-month span that we taught this program. It was not a great year for Bertie County. Coming off of this flood, you know, who are we as a group of 16-year-olds and two teachers to want to build something beautiful when the whole town is just thinking about rebuilding and getting back up on its feet? It was really uncomfortable, but at the same time an opportune moment to be saying to the town — and to the mayor and to the town councilman — that we're a group of high school kids, and we want to not just help build back, but build back *better* and contribute to the landscape of our own town.

The mayor, being a super great guy and also our next-door neighbor, said something like, "Oh, okay. If that's what you want to do, here is this piece of land. This is right in town." It's right around the corner from where that blue dot was, right in the main junction. He told us, "You can have this piece of land and build whatever you want on it." We had from this red truck to the ditch — that was our plot of land. It doesn't look like much, but it was in a really awesome location. Our students, we go to a Rotary Club meeting, and we do all of this research and go talk to everyone and their mom — literally.

The thing that we keep hearing from farmers — from town leaders and from family and friends — is that we live in this place that has a really high obesity rate and terrible public health; yet, it's an agricultural county and doesn't have a farmer's market. In any other place like, in San Francisco, for example, there is a farmer's market on practically every corner, but there is no farmer's market for 85 miles in any direction in Bertie; yet, here is this perfect storm of context where it makes so much sense on so many levels. Our students get really excited about this, and so we pitch it to the mayor. He tells us: "Great, that would be a perfect site for a farmer's market — go!"

We go back to the studio and we're building all of these models. We get super excited about it, and then we also realize that, wait a sec, not only do we have to build a farmer's market, but we have to *start* a farmer's market. We have to go and recruit all of these farmers, write this business plan, and get this management team gathered around this thing as an enterprise also. It's not just a building anymore, but we have to put something in the building.

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The design itself ended up being kind of the easy part. We presented a lot of ideas to the town. This is my student, Koran and one of the town councilmen. This photo makes me want to cry because these two people — I can guarantee you would never ever have met each other in Bertie County if it weren't for this project. They definitely never would have talked about something that they both really wanted to see happen. I was eavesdropping on this conversation thinking, this is why I think that design matters, because it can open up these conversations between people that would never ever be at the table together.

We go back and we refined this design. We're building in a flood zone; in a hurricane zone; we have a limited budget, and by the way, we have a construction crew of teenagers. These are all extremely real and scary constraints, designing to 100-mile-an-hour sustained winds where we have to build the deck of the thing three feet above flood level. It's just a nightmare, but this is where all of the learning happens for our students — we didn't just pin stuff on the wall and walk away. We have to figure out how to build this thing. We bring in all of these architects to help us decide on a final design. We're looking at the budget and talking to the mayor, and we have the building inspector in the classroom with us.

We finally gather around this one design that's feasible to build. Given our labor and human resources, it's within budget and it's responsive to the context. We called this *Vernacular & Sublime*. It was a nod to some of the local agricultural structures, but with this kind of like elevated statement.

The last day of school rolls around and we have this thing that's ready to go. We have our building permit, and I have maybe 14 insurance policies. We have all kinds of contracts and waivers from the students and their families. Our students are super excited — it's summer. I'm thinking, "Why are you so excited? We have 2,000 square feet of farmer's market to build." We hit the site.

At the same time, I should mention that the farmer's market has started as an enterprise. It's in this temporary location right around the corner over here. Every Saturday these vendors and the people are coming to the farmer's market and seeing this building now start to happen. It becomes this spectacle for the community, though, where they're all a part of the story now. We dug a bunch of holes and poured a ton of concrete. It's also 110 degrees at this point. We had pre-fabricated the tresses — the main structure or the skeleton for the building in the wood shop — and then disassembled them. We brought them to the site and reassembled them, and then put them up.

This is a really cool day because our students got to be there and wear their hard hats. It was so cute. They watched this thing like literally come out of the ground — this thing that started on their desks as a cardboard model. Then we have to go back to basics, back to carpentry 101, they had to custom-fit all of these floor joists: if I say '95 and three-eighths,' don't give me 95 and a quarter. It was back to that care and precision that they learned during the first week of class.

And then this is two days before Hurricane Irene came through — the second flood. Luckily, on this day we had just put up the bracing. We had to turn our construction site back into a classroom for a minute and talk about how we engineered the building and why, and was it going to be okay with Irene coming through. It was, thank goodness, and then there were some finishing touches with just putting up the siding.

This was a really cool design decision on the part of the students. They wanted to have this double height building so that we could use the siding not just for ventilation — and to have some grandeur in the space itself — but to use it as a billboard. We could use that as the 'Welcome' sign for the town and for the market.

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Here is the finished structure. This is two-and-a-half months of building and blood, sweat and tears. It opened to the public on October 1, 2011, and so it just had its one year anniversary. At the opening ceremony it was really cool. The vendors who had been in the temporary location all moved into the permanent structure. The mayor was there and all of the families were there. It was a big moment, not just for our students but for the town to see this thing come to life, and then get to inhabit it and have a lot of new enterprises come out of that.

For our students - I had mentioned that we're in a flood zone, right? We had to build the deck at basically three feet above ground level. Our students, being creative geniuses, used that constraint and said, "Oh, that's the height of a truck bed. We can use that as a loading dock and have the backside of the building be unloading for all of the vendors." For them to see a design decision that they made play out exactly as they had made the decision was also pretty awesome. They built out all of the vendor booth spaces. To see their own ideas being used by their friends and family and neighbors was pretty magical.

Then here are some of the kids at the opening ceremony. The mayor was there, and he gave them the key to the city, which is this big bronze key that says "Town of Windsor" on it. He handed it to the Jamisha who's standing in the middle. He hands it to them and he's thinking, "Oh, it's also a bottle opener." I'm thinking, "these kids are 17, but I'll take it!" Yes, that was really cute. He said something really lovely and thanked them and thanked us. Then Koran, who is in the striped shirt — I didn't know that he was going to do this, but he took the microphone from the mayor. He tells the crowd, "I just wanted to say that a year ago I never would have thought that I could build architecture or anything for that matter. Now, I'm super excited and I want to bring my kids back here someday and tell them that I built this." I was a mess — I'm balling.

AFTER YEAR ONE

That summed up for me in *so* many ways, exactly what I wanted the program to be, and what I think design in general can be, an inspiration and a catalyst for a kid like Koran, who is now at NC State studying engineering and maybe otherwise wouldn't have gotten there.

This was year one — just really quickly because I'm almost done, but after that first year we stayed for another year. We taught for one more year. Our students built these smaller farm stands around the county to try to expand the network of the farmer's market and build off of what the first year had done — really create an infrastructure for entrepreneurship and healthier eating and building and community around the whole county, which is so sparsely populated. Here, this is the other farm stand that they built.

So then, the very last chapter of this story is that we left. We were there for three years. After Dr. Zullinger was run out of town, the school board said, "You can stay and teach this, but we're never giving you a dime, including the salaries we had promised you." We taught for two years as unpaid teachers. I'm not telling you this as a sob story, but that's part of the reason we didn't stay longer, because I want you to know that what I do and what I do for my students is shared as a value, and that we can thrive and not just always be trying to survive. We moved our program to this wonderful, wonderful school in Berkeley, California, which is totally different — again, opposite end of the spectrum. It's the only charter school in Berkeley. But the heart of the program remains the same. They're making hand-bound, hand-stitched sketchbooks which they'll use for the rest of the year. We're looking at Berkeley in the same way that we looked at Bertie County, and what is going on

OPENING KEYNOTE ADDRESS

contextually. What can we do to respond to it? How can we open up different conversations for our students so that they can respond to their own environment?

It's a lot of the same tools, though. Just because we're in the city, it doesn't mean that we're going to stop welding or using the bandsaw. The population of the school is really interesting; it's majority minority. We have a lot of English language learners, and so we're only like two months into teaching there. We made the move and it was bittersweet. I think that for all of us as professionals — and as creative professionals — we owe it to ourselves to push ourselves but also to make the work *work*. I'm really excited to be in a place now that we can continue to grow this thing that we started, and that now we have the support to really see what's possible. Back to the theme of renewal and possibility — I mean, this is a place where I see all kinds of new possibilities.

This is my last slide. These are my sixth grade advisory girls. I ended up with this group of sixth grade girls kind of by accident as all the teachers have an advisory. These girls are amazing. Now, I'm thinking like oh, *Studio H* should have a middle school version.

All of this is to say that it started as this five-minute conversation and a nugget that we thought would be interesting. And then in two years, we've personally gotten to a place and we're in a school now where it just feels like the world is wide open. I'm really grateful to be in that place. I think for all of us, as we're here and thinking about this theme of renewal, it's important for us to not be afraid to put ourselves in situations where we have that kind of support — and that we're surrounded by people that will help us push ourselves and not be martyrs all the time. I'm saying that after having been a martyr for a long time.

These three words that we wrote, I wrote this slogan for *Studio H* on a napkin, thinking that we would think of something better and then we never did. I think that it sums up a lot of like my own approach to design, and I think to my own life and practice that I will always believe in design as this like creative resource. I'll always believe in building and making these things really, but most importantly I believe in transformation and in renewal, in that everything we do *should* have some kind of positive effect. Otherwise, what the hell are we doing? That's it. Thank you very much.