INTERVIEWER: Hello. I'm Bill Lattanzi, and today is April 27, 2012. We are speaking with J. Meejin Yoon. She's an architect, designer, and artist, the founder of MY Studio, and co-founder of Howeler and Yoon Architecture. At MIT, Miss Yoon is associate professor and director of the undergraduate program in architecture. Welcome, Meejin Yoon.

YOON: Thank you.

INTERVIEWER: The MIT community probably best knows your work from the FAST Festival last year as part of the 150 celebration, when you, it's fair to say, dressed the MIT campus with art. Can you describe how that came about and how you felt about how it went?

YOON: Well, I think the FAST Festival was an amazing opportunity to bring together different disciplines around the arts at MIT. The notion of having a Festival for Art, Science, and Technology I thought was fantastic. And Todd Machover brought me on board to curate a series of installations by students and faculty all around campus.

And the idea was to curate it in such a way that over the course of a semester these installations would pop up in an unexpected spaces, first in kind of interior niches and circulatory areas, to create a kind of sense of, well, what is that, and transform the space for an instance, and then culminate in a series of more I would say strategically placed installations that highlighted the river axis at MIT. So the initial interior projects from the winter months happened along the Infinite Corridor axis. And then the spring/summer installations happened along the Memorial Drive, right along the river. And it was a way to kind of gesture to Boston and Cambridge, like this is also our front door, even though the kind of internal community really uses the Infinite Corridor kind of circulation.

INTERVIEWER: It was a way of expanding out people's sense of the campus?

YOON: Yes. It was a way of sort of turning MIT inside out for a brief, brief moment to the public.

INTERVIEWER: And I think that this wasn't just faculty work. This was student work as well?

YOON: Yes, absolutely. It was probably 50 percent student work, maybe more than 50 percent student work and 50 percent faculty work. And we really did try to encourage collaborations between theaters students and architecture students and Media Lab students for those projects.

INTERVIEWER: Can you give me an example of one of the student or interactive projects that were developed?

YOON: Sure. There was a project right off the Infinite Corridor that was done by a PhD computation student, two PhD computation students who collaborated with some of the Media Lab electronics engineers. And they created a kind of interactive wall that was all magnetized. And so the poles on the magnets created different kinetic movement on the installation. Yes.

INTERVIEWER: So as I walked by, it would move?

YOON: It wasn't responding to necessarily your movement, but you were moving the installation and it was triggering different lights as you did that.

INTERVIEWER: So here's a question. I often hear artists talk about, this will make me think what's happening here? This will make me think afresh about my environment. Can you say more about that? Why is that a good thing? What's your aim?

YOON: Well, okay. So, you know, one of the student installations, it was called Dis(Course) 4. They're Course 4 students. And what they did was in one of the four-story stairwells, they hung a giant-- I can only describe it as a chandelier. But it was basically a modular piece that was made out of different units that could basically aggregate in a way that tapered in and then back out again in that four-story stairwell.

And what's interesting is we're above or next to-- or we, meaning architecture, is next to mechanical engineering. And then there's another department the floor below, et cetera. But when this installation happened, people I think went out of their way to actually circulate on this stairwell as opposed to going-- I know I did, because it was such a beautiful installation. And you would see people kind of obliquely one floor below. And it did kind of foster-- because it was so unfamiliar, by basically defamiliarizing one's environmental contacts, it creates discussion and questioning and asking, oh, who is one floor below us in mechanical engineering?

INTERVIEWER: That's great. Partly I think on the basis of the success of FAST-- it was tremendously enjoyed by the community and surveys said that we should do more of this at MIT-- the University just announced a new program, CAST, or the Center for Art, Science, and Technology. What's art doing in the mix here at MIT anyway? Aren't artists as far apart from engineers as you can get?

YOON: I don't know. I think if you look at the MIT community, the artists here, their work is inseparable from science and technology. And I do think there are certain artists that might not intersect with science and technology. But in the sense of the quintessential Leonardo da Vincis of the world, art, science, and technology were always intertwined, an architect, an inventor, an astronomer. And I think that notion still exists today in many people. And I'm always amazed to find engineers who are amazingly creative or mathematicians who are amazingly creative, and then artists or architects who are incredibly rigorous about their design research.

So I don't think art, science, and technology-- to me, they seem much more seamless than I think maybe the way our educational kind of context-- not MIT's educational context, but we grow up and think, oh, you either go to a humanities school or you go to a school of science and technology. You're either an artsy, literary type of person or a science/math person. But especially when you're at MIT, you find so many amazing students in math and science are brilliant musicians or artists or designers. So I think this place makes you more aware of the seamlessness between art, science, and technology.

And if you talk to faculty, I'm always amazed that the lines are so crisscrossing across the disciplines that it's very hard. You meet someone, and they're like, oh, I do structural origami. And then you're like, huh, well, that has so much to do with structures in architecture and design. But they're looking at it from math. Or a biologist who's looking at how certain components come together, we would think of them as components, but he's, of course, thinking of them as cellular aggregation, and how similar we are thinking about building module aggregation.

There's so much to learn from each other. But if we're kind of separated into these silos that never happen. So what was amazing about FAST was its ability to foreground art, science, and technology.

I think MIT is a place where no one questions the science and technology. But this is a place with amazing, creative arts and humanities. And the opportunity to really bring that to the forefront for the 150th celebration was, I think, a great, great opportunity for those of us in those fields, but also, I think, MIT became more aware of the kind of potential in the arts as it relates to the Institute in general.

INTERVIEWER: Showing the community to itself or a side of itself it wasn't aware of?

YOON: Yes, absolutely. I mean, the number of people that FAST Festival drew from the general Cambridge/Boston community, I think it was a way of making the campus more accessible to a general public. In every installation, there was research and technology involved from digital fabrication to rethinking modular aggregation to new materials through energy production with the solar rockers by Sheila Kennedy. I think people became aware that, oh, there is science and technology, but it can be beautiful and change our environment and be pleasurable and be playful as well.

INTERVIEWER: That's great. There's a quote we found that-- what's been called, there's a kind of chain reaction that happens between the arts, science, and technology at MIT. Is this the kind of thing you're talking about?

YOON: Yes. Absolutely. I mean, I think the school, like the Media Lab is probably one of the let's say buildings or envelopes that has the most variables. There are artists there because the Art, Culture, Technology program is based there. There are designers and architects in terms of students and faculty in the Media Lab. But there are also scientists, physicists, engineers, et cetera.

And I think you can sense, in the amazing production that place generates, just a creative energy. And I think that creative energy comes from the synergy of multiple disciplines. I think you need to bump up against people from other disciplines in order to re-question not only how you think about your own discipline, but, oh, in fact, aren't we much more connected than we think in our desire to change the world but through different avenues.

INTERVIEWER: I was looking at one of your talks and you talked about art, science, and technology being something when you put them together you get a whole that's more than just plus signs between them.

YOON: Yes. Absolutely.

INTERVIEWER: Yes. Can you say a little more? I mean, you have been, but--

YOON: Yes. I mean, I think that when there is synergy between three things you get much more than the sum of its parts. I think that the much more is you get something unexpected. I think typically you can guess what this kind of research might lead to, what this kind of research might lead to.

But recently one of our alums, Skylar Tibbits, who's one of the TED fellows this year, is collaborating with a biologist. And they're working on-- basically, the biologist is working on an area researching how cells know what can combine and what can not combine. Sorry. That's my very low, low biology-speak of that idea. And Skylar is also looking at it by just using mechanical energy, so like shaking a tube of different modules, they aggregate in precise ways because the modules are designed so they only go together one way and not another way. And that he learned through biology, through this collaboration.

And I think you put two people in two different disciplines together and you ask them, maybe you should have coffee or a discussion and collaborate. You can't force collaboration. But I think you never know what's going to come out of that crash of ideas.

INTERVIEWER: That's great. And there's a lot of that going on at MIT, it seems. It's encouraging. I wanted to back up for a minute. We'll come back to MIT. I want to back up for a minute and talk about what brought you to this point. But go all the way back and, without telling your whole life story, I can supply from my research that you were born in Seoul?

YOON: Yes. I was born in Seoul, Korea. But I grew up mostly in the United States. I had a very traditional architectural education. I have a bachelor of architecture from Cornell, and then a master of architecture and urban design from Harvard.

But when I graduated, I did a Fulbright in Korea. And I wanted to work on very big- scale urban projects, because in Korea at the time, cities for 300,000 people were being built over night. And I thought, well, we need designers to think about that. After a year of working at an urban research institute, I thought that is an important cause, but that's not what I love.

I love cities, but I want to do it hands-on, not through policy and not through sketches that will take time to turn into a master plan for traffic engineers to resolve, et cetera. I wanted a more immediate way of changing the urban environment. And I thought you could change urban environment through small-scale interventions. So I started my own kind of practice doing installation work in public space. One of the maybe most known projects is a project called White Noise/White Light for the Athens 2004 Olympics.

But that doesn't explain how I got to MIT. So I came to MIT in 2001. And I came out of an invitation to apply for a junior faculty position in architecture. And what's amazing is I think MIT changed my life. Not only that it gave me a job, but it changed the course of the way I thought about architecture and the city.

INTERVIEWER: You've been here 10 years now. So how did MIT--

YOON: I've been here 10-- so when I came in 2001, as I mentioned, I had a very traditional architectural and urban design education, one that was devoid of any technology in terms of the way I was trained. I was not exposed to so many things about design and technology in terms of computer-aided design or manufacturing, et cetera. So when I came here in 2001, because MIT has that word technology in it, I was very nervous.

And so my first semester of teaching, I also signed up to be a student. So I took a course at the Media Lab called, How To Make Almost Anything, which is taught by Neil Gershenfeld because I thought, I'm so technophobic, I should take a course that makes me less fearful of technology. So during that first semester I was teaching a studio, and then simultaneously I was a student.

And MIT has this great benefit where they pay your tuition if you take a course, but you have to get a B or above to get reimbursed for that course. So it was like the only course I actually ever cared about my grade, because I was worried that I wouldn't get it reimbursed. But I got an A. And I learned a lot through that class, because it was a crash course in computer-aided design, manufacturing, basic electronics, microcontrollers, prototyping.

And the final project of that class, for my final assignment I created something called the Defensible Dress. And later iterations of that dress were exhibited at the LA MOCA and the National Museum in Tokyo. But the idea behind the dress was I want to defend my personal space from people that crowd it in urban contexts.

And so when anyone entered a space zone that I could preset-- 24 inches was my comfort zone. I think culturally it's different if you're in Spain versus Tokyo. So the idea was you could program your distance, your personal space distance. If anyone violated that, this dress lifted like a porcupine with these spikes, and kept people away.

INTERVIEWER: Did you ever wear it in public?

YOON: I did wear it in public. And I had students wear it in public. And it was shown on a mannequin in the museums.

INTERVIEWER: What was that experience like, just briefly, and for the students, especially.

YOON: I think people were like, what the? They were kind of surprised by it. But at the same time I think it resonated with everybody at the same time. It's a crazy project, but everyone has had in public space a feeling of kind of personal space encroachment.

And that was the project that you can deal with kind of big- scale issues through a small, personal scale intervention. And that's what led to the White Noise/White Light project for the Athens Olympics. That's what has led to a lot of my work that deals with interactive design and alternative energy and transforming a public space.

INTERVIEWER: So I'm going to digress one more step. And then we'll come back to how MIT changed you. So in teaching, how do students respond to this? I'm thinking of-- and I may have a wrong stereotype of the engineer, where everything has to be quantified and logical and explained.

This idea of the Defensible Dress, a big abstract idea and a concrete object and the effect of it is hard to put into words. Art is often beyond words. How do you translate that to students and how do they respond to it? Do you get resistance?

YOON: I feel like at MIT you don't get resistance. I mean, I think the first resistance would be a person that would ask, well, why would you want to do that? But I think MIT-- I've never found anyone that asks me, why would you want to do that? It's, huh, that's really strange, but that's kind of interesting. So how are you going to do that?

And I think that's the nature of Neil's course, how to make almost anything, not what should we make? Why should we make it?

So I think in a way Neil's course coupled with the kind of just general fearlessness of MIT-- like there is the attitude of not why, but why not, and a lot of support. So I could take a class as a faculty member. I could learn about things that I was sort of afraid to admit that I didn't know much about when I started here.

And it did change the trajectory of my work. And it could only have happened here. If I had taken a teaching position at any other school, my work would not be the work it is today.

INTERVIEWER: You've lost your technophobia. Are you a technophile now?

YOON: Well, I would say I am still wary of technology. But I think that wariness is a super-healthy aspect of the work, too. But I am fearless because I now know people who are fearless.

You know, once we were doing a project. It was a sound installation, used capacity sensing. And it produced sound, so I was like, well, we should get a small MP3 player. And the engineer I was working with was like, why would we buy an MP3 player? I'm going to just make it from scratch.

And that kind of attitude, that MIT has people who actually still make things, is pretty rare. We don't just talk about things. We don't just philosophize about things. We make things.

We make things. We test things. And everything we make hopefully impacts the world from the artist side to the engineers that invent devices that help people.

INTERVIEWER: MIT, learn to be fearless. That's a pretty good slogan.

YOON: Yes. Yes.

INTERVIEWER: So now I want to flip it around and ask the other side of the question that I think is actually harder to answer, which is, you've been here a decade. How have you influenced MIT?

YOON: I don't know if one person like me can influence MIT. I mean, I think that over the decade I have seen change in my department. In the Department of Architecture there is more openness to interdisciplinary collaborations, more openness to projects that typically would be seen on the very periphery of architectural design, because it's dealing with either urban issues or landscape issues or interactive design issues or mobility issues.

And I don't know if I'm responsible for that or just over the last decade all the departments have become more interdisciplinary, because the problems now that exist in the world are such that no one discipline can solve them. It requires the collaboration of a planner and an environmental scientist and a climatologist, or a geologist and an electrical engineer and an artist, maybe.

INTERVIEWER: So as head of the undergraduate program here, does that influence where you feel architecture education should go and how you're planning the program for the next 5, 10, 15, 20 years?

YOON: Yes. I mean, I think that the undergrads are the best asset here at MIT. They're incredibly bright and energetic and unencumbered yet by the rules of society and the rules of the profession. So they are fearless.

And for me, the important thing about an undergraduate program in architecture should be that we train students such that if they want to go on and get a master of architecture, they have a great foundation to do so. But we don't create a program that railroads them into only getting an architecture graduate degree, that the education really focuses on design thinking in a broader sense, so that they can go on to doing anything from management problem solving to industrial design to architecture. And historically, we have had something like 30 percent, 40 percent go on into other fields. So it's, I think, different from some undergraduate programs where like 90 percent of the students go into that area for their Master's degree.

So it makes it a challenging program to develop, because you want to make sure the students have enough exposure to the kinds of course curriculum that would prepare them for a master of architecture. But you want to also make sure that they're understanding architecture in the broadest sense, that it is constructing the environment as opposed to like building a kind of building.

And I think we try hard to do that by requiring courses in both art culture and technology and building technology. Our students have to take both so that they understand that architecture really does sit between art and science/technology. It's like right smack in the middle there. And I think the best architects have a strong grasp of both.

INTERVIEWER: And even, as you say, it's part of a liberal arts education. You can do anything from it. It strikes me as you're talking that as we go along into the future, society gets more technological, more visual. And the difference between design- thinking and thinking, it seems to me, is getting less and less. And design is very useful. If you have design principles, it applies to great number of fields. Is that true, do you think ?

YOON: Yes. I mean, I think for me design- thinking, it starts with how to analyze a problem and a context and break that down. And it requires thinking strategically and iteratively about multiple ways of attacking that problem through the production of something. So I think that's where we are designers and architects, because our goal is actually to make something that is inhabitable or spatially experienceable that changes the context.

INTERVIEWER: Tell me a story, one of your favorite stories of your undergrads, project or success stories. Anything that stands out to you.

YOON: We've had some amazing, amazing undergrads. There is a graduate of our program named Lisa Smith who was one of my favorite students. And I met her initially because she was put on-- I don't remember what MIT calls it. But she had some disciplinary hearing or something.

So my first day of studio, she's like, Professor Yoon, I'm sorry I have to leave 30 minutes early because I have a disciplinary hearing about something I did. And I was like, oh my goodness. She's going to be a troublemaker.

It turns out she had created a survey using MIT letterhead. But the survey was kind of a joke survey. So it was kind of very clever and funny, but because it had the MIT logo on it, she got into some disciplinary problems. But she created this megaphone project where she got into trouble again, because as a public art piece on the streets, she was screaming from a megaphone about certain political issues.

And to me she represents the perfect spirit of MIT undergrads who want to change the world and are using-- and yes, they get into some trouble. But I think the reason they're getting into that trouble is because they're really trying to make other people aware of certain conditions and finding ways through that awareness to then make positive change.

INTERVIEWER: So was the megaphone project her final project or did you work with her on developing things maybe so she could do these things without getting arrested or did you encourage her to get arrested?

YOON: Well, you know, I didn't encourage her to get arrested. But I supported her in finding ways to get her projects done. And she graduated from here and then she went to the Art Institute of Chicago, where she got a master's in design objects. And now she's a very successful designer, but she designs polemical objects.

INTERVIEWER: What's a polemical object?

YOON: She designed these mats, but they have a message to them, a political message to them that isn't just text, but the perverseness of the thing. Or a lamp that's designed so minimally that it's a line. So it doesn't look like a lamp. It actually just changes your reading of space and perspective.

INTERVIEWER: So we've touched on this a little, but in looking forward just architecture schools in general over the next decades, what's the biggest challenge?

YOON: I think the biggest challenge is going to be in dealing with environmental issues. Buildings, of course, take up the most energy. If you look at charts about what consumes the most energy in the United States, it's not cars and it's not trains and it's not planes. It's actually buildings.

So I think that's going to be the biggest concern for the next generation, how to design in such a way that our buildings are smart and intelligent, reduce energy use, while still creating amazing environments for us to do things in, creating collaborative environments, because more of those kinds of spaces will be necessary.

INTERVIEWER: But on the other hand, I've read that urban centers in places like New York in some ways are the greenest places of all because there's so much density.

YOON: Yes, because of the density. Yes. But in the United States, I don't think we'll ever have a condition where there'll be 12 Manhattans. So I do think architects need to think about how to build sustainably at all kinds of scales. Like at the suburban scale, because the car is part of the American dream and until we change the American dream, we're going to have suburbs. So in a suburban context, what can we do to create the maximum amount of energy efficiency?

INTERVIEWER: In the graduate level architecture design studio course you've been teaching for the last decade, you ask your students to quote, "think design through systems."

YOON: Where did you here that?

INTERVIEWER: It's been given to me. Referring to the challenge issued by architecture critic, Reyner Banham. So can you tell us a little more about that and how that works in the context of MIT?

YOON: Yes. I think it's very important to think through systems, through designing systems, as opposed to designing a one-off exquisite design object.

INTERVIEWER: I've heard the masterpiece is dead.

YOON: Well, it's not-- I mean, I love masterpieces still. But the masterpiece only addresses one percent of architecture, if that. Maybe you 0.1 percent of one percent of architecture are the masterpieces, especially in the United States. But if you can design a system, whether that system is a way of design, or if you can design through organizing structural, mechanical, and programmatic systems in a way that work smartly and still produce amazing spaces, I think that's the key, as opposed to all the top architects producing one-offs. That is not going to help change the environment that 99 percent of the world, or 99 percent of the United States lives in, works in, plays in.

INTERVIEWER: What's a successful example? What's the most stand-out example of a place or a system that's doing it right anywhere in the world that we can look to as a--

YOON: There are some great historical examples, that I would say range from Hadrian's Villa, where--

INTERVIEWER: In ancient Rome.

YOON: Yes. I mean, I think where space is organized so that it deals with-- in terms of the baths, the hot, the cold. And there's an organization to that and an integration between the architecture and the technology of the time and the program in a really integrated way.

INTERVIEWER: By program we mean that that's the place you go to have a bath.

YOON: Yes. Yes. And to me, that is an integrated system, so integrated that you can't take one thing out without it all just kind of falling apart. Maybe a more recent example would be like the Centre Pompidou in Paris.

But there, they codify the system. So on the outside, you see all the colors. And that's because they're showing which ones are plumbing pipes and which ones are mechanical ducts, and intake, outflow, et cetera. And that's a building that literally turns inside out in order to make the public kind of aware of the systems of a building. I think many architects, like Foster's building in Hong Kong, the Hong Kong Shanghai Bank, is a masterful example of how structural systems work together in an integrated way.

INTERVIEWER: How about MIT? Does MIT work well as a system of buildings?

YOON: I think MIT is a kind of campus of ad-hoc-ness.

INTERVIEWER: It's a kludge.

YOON: It's not a system. It's the aftermath of piecemealing and making things work ad hoc, bit by bit. And I think as we move forward, every time I'm outside on a street and I see them digging up my street, because I live in downtown Boston, they're digging it up, all the asphalt, to run something. Who knows what it is? Bios. And then like three weeks later they're digging it up and then somebody's running maybe a gas line under there.

And to me, that's what I mean by it's not thought through like a system. It's always being dug up and something added in, as opposed to thinking through what it means to have infrastructure in an urban context embedded with buildings. I think there is a different way to think about that problem.

INTERVIEWER: It seems like we're coming to grips with change in architecture as well. I was hearing a story the other day about a brand new building that they spent years and millions of dollars-- or no. It was an old building that they retrofitted so that everybody could have an ethernet connection. By the time they finished, they didn't need them.

YOON: Yes. Technology leaps. And architecture is slow. So there are many buildings-- like I think even the Stata Center here at MIT, between when they started designing it and when it was built was many, many, many years.

And buildings take a long time. They take a long time to design, 12 to 18 months. And then they take a long time to build, another 18 to 24 months. By the time you add that all up together from the minute you started to draw your first line to when people are moving in, we've had four years of technological revolution.

So architecture will always remain kind of-- because it's still built by humans, still physical. So it will always be bridging kind of low and high technologies. I think that's also what makes architecture really amazing.

I think of a wall as a form of technology. It separates me from whoever else. And the way you design the wall, if you undulate the wall it has different acoustic properties. If you splay the wall, it has different optical qualities.

So I still think the most basic forms of architecture technology are incredibly manipulatable. And so I think the challenge of an architect now is we still have to design amazing walls, but now we have to integrate them with infrastructural systems and technologies that are constantly changing.

And it used to be people told me that, oh, buildings are really only built for a lifespan of like 30 years. But I think most people stay in buildings much longer. The building I live in in Boston was built in 1890. And so we have to think that our buildings are not like 30 years we're going to just tear them down and build them again. But how can the building adapt to transformation?

INTERVIEWER: I'm always struck by, this year especially at the Design School, how buildings, as you say, they're both technology, but they're ideas in space and time. And now this idea seems to be flexibility, change, adaptability.

YOON: Yes. Every architecture project, every good architecture project, is based on an idea. It's based on a concept. And I think we saw in the '60s and '70s, especially in Japan after the war, a lot of research into thinking about adaptability. It was the Metabolist Movement at the time. But adaptability, transformation, a way to re-imagine the future of Tokyo, big visions, and a lot of great heroic buildings that researched these ideas.

I think in the US we had that moment too in the '60s and the '70s. And I think in Boston there are many great-- I would call them masterpieces, but maybe some people in Boston would call them abominations-- buildings that were really based on an idea and testing those ideas.

INTERVIEWER: You're not talking about Government Center, are you?

YOON: I'm talking about the range from Exeter Library to the Government Center to Rudolph's public service building on Cambridge Street. Yes.

INTERVIEWER: Wow. Defend Government Center for me. Change my mind.

YOON: Well, I think the diagram is interesting to-- the first move to create such a giant public plaza. I'm not saying it was done right or that it works. But there was a clarity about the idea that there would be a huge public plaza, huge, based on Siena. They didn't quite get the Siena part, but-- and that the government building would be kind of transparent to the public.

The mayor's office would be where it is, with the glass windows, that there'd be a giant courtyard in the middle that brought daylight internally, that the ground level would have all the public administration for taxes and whatever, for people to go pay their bills or whatever they do down on the lower level. So it was meant to be an incredibly porous building. It didn't work that way, because I think after it was built they closed off most of the entries and so it turned a circulation that was supposed to be about porosity for the public into kind of a labyrinth because of security issues. And the world changed between the optimism of that public-ness to the realities of security today.

INTERVIEWER: I think it's been most successful for me when they put up those big screens when the Red Sox were in the World Series or something like that and it does becomes this wonderfully warm, festive civic place.

YOON: Yes. I think in the United States, you can't have public space without programming, without something happening in that space, because-- and especially in Boston-- we don't necessarily have the culture or the climate to support the public just hanging out in a plaza like Boston City Hall's.

INTERVIEWER: So what keeps coming up in your work really is civic engagement. It's really using art and architecture to promote civic engagement. How has that mission evolved in your field, and where is it going? Are we going to see more and more--

YOON: Well, I mean, I think there are all kinds of architectures. But I think architecture is most present in a public context. So it used to be that the Forum in Rome, like that architecture made civic space. It helped define civic space. It helped foster civic space.

For me, I'm very interested now, because we have less a notion of civic space in the United States than maybe a more neutral word like public space. But I'm very interested in how architecture and public space work together, how public architectures can help change the mission of an institute.

We just finished the new headquarters for the Boston Society of Architects in our practice. And the BSA moved from Broad Street to Atlantic Wharf. And with that move, they are leasing a space which is about 15,000 square feet which has almost all of that on a second four. And the ground floor is about 1,000 square feet. But it's got window front, but it's on the second floor.

So that project for us was all about how can we make a second floor space, because it's a gallery, seem as public as possible? And it's a Chapter 91 space, so it needs to be public and it needs to be accessible--

INTERVIEWER: Chapter 91?

YOON: I don't actually know.

INTERVIEWER: Just if you get money from the State you have to have it accessible to the public.

YOON: Yes. And it has to be programmed as public space. So it is an architecture gallery. And our idea was that we would create a move that would try to make that second floor space seem part of street, which was very challenging. So what we did was we gave up all the perimeter of that space to the public programming, to the galleries. We pushed all the staff offices and conference rooms back off the glass so that you could, from the ground floor, look up.

And we created this green soffit in the ceiling, so that ceiling acted kind of as a facade, because you could see it from the street. And then that ceiling like scooped down to make a grand stair that people kind of walk up. And it's painted bright green so you can't miss it. And the idea is you scoop up the public. They end up on the second floor space and they see the architecture exhibits in the context of the city. So they can look right out the window and see what design is doing is trying to make an impact and change in the physical world we inhabit.

INTERVIEWER: You're both a working architect and a working artist and teacher. Do your students get involved in your architectural projects?

YOON: Yes. We do take summer interns. And we hire many graduates from the department. And then another way students get involved is through UROP projects. So some of the design research work I do, I hire undergraduates to help with.

INTERVIEWER: UROP is?

YOON: Undergraduate Research Opportunity. It's a really special program MIT has, where MIT, the Institute, supports faculty to hire undergraduate research students for their projects. So I think typically faculty would tend to hire graduate students over undergraduate students, simply because they have more experience or they're directly involved in their labs already. But MIT's program is really trying to encourage undergrads and faculty to have a closer relationship and give undergrads an experience they wouldn't have otherwise. So MIT actually pays the undergrads directly to work on faculty research projects.

So one project that I used UROP students on was a project called Unsolicited Small Projects for the Big Dig. And it was a book project where we did a lot of research on the Big Dig and the kind of infrastructural overhaul of that project. And then we made speculative conjectures on a series of projects that are very, very hypothetical that could've happened or may one day happen to make the Greenway more a vital public space.

Because even though it is a public space and it is a park and it is increasingly well used, there was not much intention or-- maybe intention is not the right word. But there was not much specificity in thinking about what could happen on those parcels, those new parks, now that we had this huge way of connecting the city back together. It's unprecedented as an urban project in the United States. And very little, I think, was thought about what you could do beyond just making it a really nice park.

INTERVIEWER: So what's an example? What could you do?

YOON: Well, like last year a young architecture firm called Studio Luz produced a giant hammock on one of the parcels, a hammock that like 20 people could hang out on simultaneously. Some new interventions, like the carousel, I think, has been successful. But I'm thinking more like why isn't there like a parcel that's just 100 dirigibles?

It is such a unique kind of urban space. And I don't think the activities on it are particularly wonder-filled or unique. It's public, but it doesn't gather people let's say together, other than that water fountain, which is super successful.

INTERVIEWER: So we need a Christo to come put the gates in and get us--

YOON: Absolutely. I think once a year they should have an artist do something that ties all the parcels along the line together. And then other times there could be different environmental transformations. I think the Harbor Island Pavilion has been a great success. So I think over the years after it opened there have been more experiments on how to make the Greenway civic space as well as a park space.

INTERVIEWER: Any reaction from your unsolicited suggestions?

YOON: Oh, I think people were very nervous about it, because some of the proposals were really crazy, because I am frustrated that there are still so many lanes of traffic. And even though it's supposed to be a linear park, because you have to cross a road every time if you're trying to jog, it's not a really linear experience.

So I proposed in one of the projects a jogger's E-ZPass. So you would put a little E-ZPass on your ankle and you would jog. And as you jogged, it would literally stop all the lights so that it privileged the pedestrian, as opposed to our current environment which always privileges the car. So as the pedestrian jogs, not only do all the walk/don't walk signs work in their favor, but a landscape of trees follows you, so you never have to see the cars. So they run with you, these trees.

INTERVIEWER: I love that. Is it like a people-mover with trees on it? How does it quite work?

YOON: I didn't figure-- it was just very speculative. But that book led to actually, surprisingly, an invitation for me to join a working group that is now thinking about public art on the Greenway, public art and programming on the Greenway. So I think it led to the right thing.

INTERVIEWER: I've done a few of these interviews now, and it seems there is a common theme at MIT of striking out a huge vision, never mind whether it can actually be done or not, but put a flag out there. This is where we want to go. And then figure the reality to get there. And you might not get where you're going, but you'll get somewhere.

YOON: Yes. I think that's right. I think that somehow MIT encourages the big, big ideas, the big visions. But we're not clowns. We're professors doing real research. And so it's an interesting way of speculating on a big vision and what are possible instruments that lead to that big vision.

Sometimes it's almost like a marketing campaign. It's like putting the idea out there in order to generate enough activity and discussion. And through that, you might create policy change, et cetera. In other cases, it's like speculate on that big vision, but what are the intermediary steps to get to that big vision.

And I think that's the luxury of being a professor at MIT. I think in practice I'm always thinking of our projects last anywhere from three months to three years. We don't really have projects that last 30 years in our practice. And you're always under tight deadline. And you have to work with realities. And you're doing absolutely the best under really tight time constraints.

The amazing thing about the academic environment of MIT is they really encourage long- term thinking and short- term projects that get to that long- term thinking. So you can say, I have this idea. I don't think we're there to be able to implement this in the next even 5 to 10 years, but maybe 20 years out, 30 years out. And we need to start thinking about this and talking about this now to get there. That's the luxury. And that's why I can't leave academia, even though I also love practice.

INTERVIEWER: How do you work out that balance between-- you're everywhere all the time?

YOON: Yes. It is an impossible-- I think there is no such thing as balance.

INTERVIEWER: How do your students respond, MIT students in particular, to this laying out of the big idea. Are they thrown by that? Do they love it?

YOON: I think it depends. I think like for the graduate students, I think they love it. I think the undergraduate students are actually more skeptical. Like, no, you need to teach me how to really build real buildings. So I think we have both. I mean, I think that's what makes MIT so unique.

INTERVIEWER: So how do you introduce them to the joy of imagination, free thinking, letting go of the practical for a moment before you come back to it?

YOON: Through either abstract exercises, so abstract that they don't really know they're designing. One of my favorite exercises is I ask them to make a drawing. But in order for them to make a drawing, they cannot draw on that drawing.

What they have to do is design a set of rules, such that their classmates each by contributing one hour of their labor on that piece of paper can produce the drawing. And the rules can't be too elaborate. So I make them stick to one page of rules. And it produces the most extraordinary drawings.

And this is what I mean by like thinking through systems or designing a system. I want the students to design the system for the drawing. They can invent the tool. I let them invent the tool if they want, and then a set of rules.

And then one student says, draw this specific pattern until you hit the edge and then go this-- like so it creates a chain pattern. Another student asked them to put the paper on a wall and with their hand try to find-- because our walls are full of holes because of all the push pins for printing up-- and copy every location of every hole, and then the next student to connect all the dots. And it produces beautiful drawings, because they're not so willful about some metaphoric, poetic intent. But they are precise and they are based on a logic that the student constructs.

And what they learn from that project, I hope, is that design is not about pure individual authorship anymore. Design requires the participation of many. But you, as the designer, need to make sure that there is clarity about how that design will be executed. That's one lesson from that exercise. And I think students every time are just profoundly impressed by how beautiful the drawings are. From just an aesthetic point of view, the drawings always end up much more beautiful than they could have done if they sat with a blank piece of paper and tried to draw something.

INTERVIEWER: That's great. That's really good. Where do you go from there? What's your next exercise?

YOON: Well, I also do an exercise where sometimes I ask students to take a historic building, like a '60s and '70s building, and we blow up the photographs really large. And I ask them to just sort of Photoshop, like re-imagine it. And so it's not again working from a blank piece of paper. But how would you have done it differently?

So one thing they learn is they have to figure out why the original architect made those decisions. Then they come to really appreciate those decisions. Sometimes they're like, I can't do anything. It's really good just the way it is.

But I say, okay. It was designed as a library. Now you have to re-imagine it as an energy farm. And then they kind of loosen up and they go wild and they have fun.

INTERVIEWER: Is there something in this re-contextualization or defamiliarizing that is involved with your artwork? White Noise/White Light or the Philadelphia piece that drew people to the water?

YOON: Yes. No. I think there is something I think that's really important in design education that you need to, for students, break down what they think architecture is. Many students when they come into an architecture program they say, oh, I've been around buildings all my life. I know exactly what a building is. Teach me how to draw plans and I'll go on my merry way and design buildings.

And the first thing is, well, what is a building? What are the things that create or not create social interaction? How do you deal with the ground plane? How does something meet the ground plane?

How do you think about barriers? From the labyrinth to the continuity, how can you rethink circulation? And so we try to abstract those exercises so students really understand space and not buildings, because our goal is to design space, and that produces buildings.

A building is just a volume that separates you from your larger environment. So what is an envelope? How can envelopes perform from an energy point of view but also from a social point of view. Certain buildings, like we were saying City Hall, it was meant to be porous, but it absolutely doesn't work. How can you decide a porous building?

INTERVIEWER: So we were talking about architecture moving forward, maybe always, as a design of space, rather than a design of buildings. So let's speculate a little about the future. If you had a magic wand and could redesign the campus, take your Photoshop, your real world Photoshop, and open it up and make it more of a designed, functioning place, what would you do?

YOON: I'd do many things. But one of the first schemes I think I would do, just from having been here so long and understanding the way people think and work-- and it would make a terrible campus. And it would be vetoed by all architects and planners. But I think the MIT community would love to be in one building.

So it would be one mega-building that would clear across the whole campus. There would be lots of perforations in it for courtyards, so there would be lots of day-lighting, et cetera. But it would allow you to get from any department to any department without going outside. And it would have lots of-- I don't know what you would call it-- non-defined spaces in terms of who owns it, so that you could have impromptu research generated by multiple groups simultaneously.

It would be incredibly transparent. It would be all glass on the interior, so that you could see what was going on. And it would be no more than two floors, maybe three floors max. Which is not a great use of the land, but what it means is everyone would walk. So no one would need to take an elevator and go into a dark cube.

One of the stories I heard once from a friend of mine who used to work at Bell Labs, and he said it was an amazing place to work and that so much impromptu discussion and innovation really occurred through serendipity, because people would run into each other on the stairs, because everyone used the stairs in Bell Labs. And all the great discussions happened on the landings. I thought that was fantastic.

So if I could redesign MIT, it would be one giant mega-building, a lot of transparency and day-lighting, with millions of courtyards. But everything would be two or three floors so that every one would run into each other on landings. And it would be designed in such a way that no one would take one route.

Maybe it would be designed so that always the routes changed, or you couldn't always take the same route, because I think you get into a habit at MIT. You go down this corridor, this corridor, this corridor, this corridor. You run into the same people.

But if the routes were always changing in this labyrinth of the future MIT, you'd run into all kinds of people, pass all kinds of things, and be like, huh, wow. Someone is creating a robot that climbs that wall. The gecko, that's kind of interesting, because I'm researching a 3M product that is about sticky surfaces. Maybe I should collaborate with him or talk to him.

INTERVIEWER: That's very cool. I was at Pixar once years and years ago, shortly after they began. And I don't know what they're like now, but at that time they were in giant Quonset huts, kind of airplane hangar buildings. It was the same deal. And people rode around on scooters, little hand scooters. So that could be part of it too. You could have a take it and leave it scooter perhaps.

YOON: That sounds good.

INTERVIEWER: It's a little bit like that now. I mean, MIT, it's embryonic and not fully realized, but it does seem to be that there's a lot of meeting in the hallways, meeting in corridors.

YOON: Yes. Yes. But I feel like the spaces are not the kind of spaces you want to just linger in forever and ever. It is just the result of corridors and hallways and bridges and connections, as opposed to being really thought of as network.

INTERVIEWER: This comes back to the FAST Festival, where the pictures I saw-- it was not here, but the Green Building and that area, it did seem to make it into a networked community public space in a way that, to me at least, it just feels--

YOON: Isn't now.

INTERVIEWER: Yes. It's not now. Was that a deliberate aim that the students had, or you had?

YOON: Well, you know, yes. I mean, I think that, for me, for the windscreen installation I did on the Green Building, for me that place on the campus is strange, because first it's a tower. But also because it's so windy nobody enjoys being in that space. And even though the other side of the Green Building runs parallel to the extension of the Infinite Corridor, because the weather's always so bad nobody uses it. So I do think the goal was to actually take spaces that are underutilized on MIT's campus and then make them more utilized. Or to use some aspect of them to--

INTERVIEWER: So what are you working on now? What's the next big art project or architecture project?

YOON: We're doing a couple interesting projects. We were asked recently to do a permanent installation art piece as part of the General Service Administration's Percent for Art and Architecture program. So it's fun, because I get to change hats and be the artist in an architecture project.

But this is for the San Ysidro border crossing, which is the largest land border crossing in the world. And so they're expanding it. It'll be 34 lanes of traffic. They process 3,000 people an hour in the pedestrian lane.

INTERVIEWER: California-Mexico?

YOON: Yes. Yes.

INTERVIEWER: 3,000 people an hour?

YOON: That doesn't seem right, does it? It must be 3,000-- 3,000 people a day doesn't sound right either.

INTERVIEWER: 3,000 an hour. Could be.

YOON: Yes. And we're doing a solar-powered canopy in the city of Phoenix on Roosevelt Row, was another project. On the architectural front, we're looking at redeveloping Avery and Hayward Street here in Boston, the streetscape. What else are we doing? We have a lot of projects.

Oh, we're doing the plaza in front of Harvard Science Center. We're working with Stoss, which is a landscape firm, to rethink that. And we're specifically focusing on the media aspects, lighting and media aspects of that project.

INTERVIEWER: So people say you should never go into business with your friends. You're in business with your husband. How does that work out?

YOON: We're still friends. So my husband was one year ahead of me in undergrad at Cornell. So he was an upperclassman by one year. And when we graduated, he went to New York and then I went to Boston for my Master's, or Cambridge for my Master's.

And he continued on his track. So he worked for eight years at KPF, big firm in New York. And then three years for Diller Scofidio, which is the boutique firm that the ICA project here in Boston.

And I did my thing. I did my public space installations. I did small- scale residential projects. And in-- I don't remember-- 2006 we said we'd join forces. And we were like, what kind of practice are we going to have? Because he has big-- he did towers at KPF. He worked on the tallest buildings in the world. And Diller Scofidio, he worked on really important cultural venues, like the Institute of Contemporary Art and Lincoln Center.

And me, I had done an installation at the Guggenheim, and for the Athens Olympics, and much smaller- scale interventions. A dress. What kind of firm are we going to have?

So we've combined our forces and it's been an adventure. I mean, I think we both really rely on each other's opinion. We really respect it. But we have very different approaches to design, so it works out well.

INTERVIEWER: In a way, you're kind of embodying this future for the field that you're talking about, combining designing space and art influences with a more traditional building approach.

YOON: Yes. Yes.

INTERVIEWER: So you represent the future. So I'll come back in another 20 years and see where you are.

YOON: Hopefully, we'll still be in operation.

INTERVIEWER: So why do you teach? You don't have to.

YOON: Yes. I don't know. I can't not teach. I mean, I feel always inspired by teaching. Like I'm on sabbatical this semester, so I've been really focusing on the work in the studio, in the office. And I miss teaching. Like I have this itch to be around young, energetic people who are unencumbered by the realities of the world. And they encourage me to always think with open eyes, with an open mind about a problem.

And because I'm professing a certain way I think that design should be thought about, as I profess to them, I can't be a hypocrite. So it keeps our office, I think, and studio having the highest ambitions in terms of design and not giving in and kind of selling out to the realities of the world.

INTERVIEWER: They keep you on your toes.

YOON: They keep me on my toes. Yes.

INTERVIEWER: Well, that's great. I think that's all I have. Thank you so much.

YOON: Thank you. Thank you so much.