

IN THE FIELD

NONDISCIPLINARY RESEARCH IN LANDSCAPE AND CULTURE

Attempts to understand the complex relationship between people and the landscape has led to the creation of new institutional structures that work beyond established “interdisciplinary” approaches. In this session, we’ll look at the work of creatively led organizations that attempt to provoke the public to engage in new ways of seeing. Andrea Grover moderated this session with presentations by Matthew Coolidge, Geoff Manaugh, Susan Schwartzenberg, and Rosten Woo.

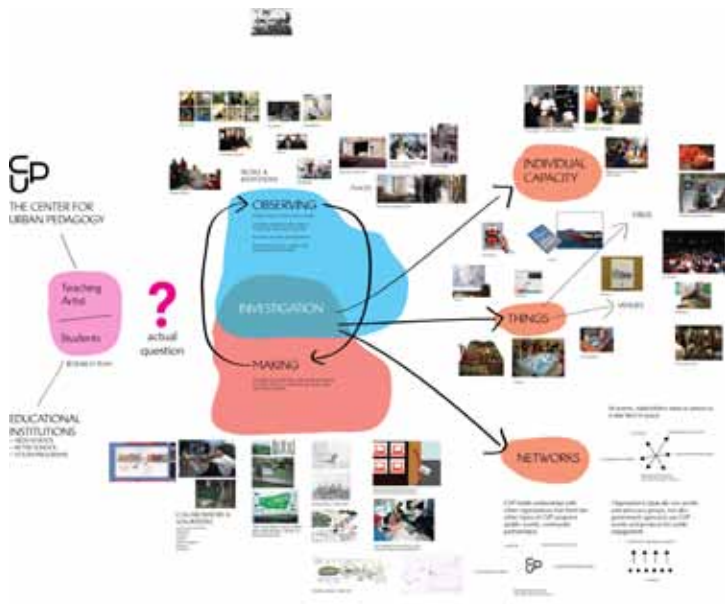
GROVER: Hi, everyone. Welcome. I’m Andrea Grover. I’m going to be moderating the panel. I’m a research fellow at the Studio for Creative Inquiry at Carnegie Mellon University. I am not at the Institute for Creative Thinking. Someone said that they looked it up and it doesn’t exist. So it’s not that I have crashed the party. But at any rate, I’ve been, for the last six months or so, looking at the last 50 years of interdisciplinarity as we know it in academia today. And this panel is going to be talking about work that’s done in the field, outside of the academy or outside of laboratories.

I tried to figure out a unifying theme among all of the participants. Because it’s nondisciplinary, I couldn’t really find out except for going out to sites as a theme. But I did have some keywords that will be discussed: landscape, land use, environmental design, housing policy, urban systems and behaviors, cultural geography, zoning, architecture, infrastructure, conjecture, urban speculation, and landscape features, in that order. We’re going to start out with Rosten Woo, who is a designer, planner, educator, and the co-founder of the Center for Urban Pedagogy. Rosten, take it away.

WOO: I thought that what would be most interesting to present to this audience is one aspect of the work of an organization that I co-founded in New York City called the Center for Urban Pedagogy. We mostly just call it CUP.

CUP designs educational projects about places and how they change. Our mission and why we do this is to use design and art to improve public participation in land-use decisions, shaping the places where we live. We work in a lot of formats: making exhibitions, making public programs, workshops, designing publications. What I'm going to talk about today is our youth programming, as a theater and a generator of ideas in our research process.

All of the work that CUP does is collaboration among three sets of experts: artists and designers, advocates, and educators. I'm going to switch to an experimental format, which is panning around a big diagram in Illustrator.



Center for Urban Pedagogy Diagram

Typically we don't just work with students. We're always partnering with a specific educational institution. In a lot of cases, that's a high school, an after-school, or a youth program. There are special things that that format affords us. You don't often get to have a set. If you think about doing adult education, for instance, you have a set of people who have nothing else that they can do for six hours a week but search out interesting questions that they have about how their neighborhood works.

It's an interesting format to work with. You start with conscripted young people, and you turn them, with our teaching artist, into a research team. There are special benefits that the combination affords when trying to learn about the world you inhabit.

So the critical component is having a question, which probably for many people in this room doesn't sound like much of a brainstorm or a genius idea. But in the context of doing education in public schools, it's not typical that the person you're employing to be the teaching artist doesn't know the answer to the question that they're asking the students. But we think it's important that we don't employ people who are experts in the subject matter. They're experts, perhaps, in a form of representation or a certain kind of research, but if we are looking at something like, "How does the water system in the city work?" We don't hire somebody who's already a water ecologist to work with the students.

They work as a team. There are lots of places these questions can come from. We can talk about that later. But some examples of the questions we've investigated are things like, "Where does our water come from? Where does our garbage go? Where does public housing come from? Who owns the Internet infrastructure? How do cell phones work?" Things that probably have very simple answers, but also really complex answers, and we try to investigate those questions in an open-ended way. We have a structure of maybe six hours a week. You have the structure of a semester. And we get as far as we can in that period.

The term that we use for doing that is investigation. I'd say that that investigation comprises two kinds of activities, as all the people this morning have talked about. Those activities are related, and there are lots of ways you can think about chunking them up. I'm going to chunk them up in this particular way for purposes of presenting.

The first part is observing. If we have a question such as, "Where does our water come from?" We try to figure it out first by getting students out of the classroom as quickly as possible to ask other people how things work. That's important because our teachers are not experts in the subject matter, and also because we think of it as a kind of mapping of the stakeholders and their perspectives on an issue, as much as it is teaching specific subject matter.

We think that all perspectives are interesting and paint a social portrait of the infrastructure that people inhabit.

We take people out to meet people. We do quite a bit of legwork to assemble a cast of characters for the students to meet and learn about the issue, ranging from elected officials—these are students interviewing Nydia Velazquez—city bureaucrats, community activists, NGOs, academics, corporations, people who are working in the industry in some way or other. We think that all perspectives are interesting and paint a social portrait of the infrastructure that people inhabit. It's as important, if you're trying to understand New York City's water system, to

understand all the people who are involved in maintaining it, as it is to know the three main reservoirs, and so on.

The other part, and this relates to the theme, is that we go to the scene. We try to get students to visit places as quickly as possible. That includes places where there have been environmental impacts, places where there are administration and decision-making. Sometimes we take people to really boring places such as the Department of Buildings, or the Department of Records—places where these systems touch the everyday. We try to defamiliarize something like toilets or streets. So you look at these things. I think that a big part of it is trying to defamiliarize things that people expect. “Oh, I know what streets are. But where do they come from?” We try to get people to look at that, to look below the surface and pull on those threads.

And the same thing applies to visiting places of administration and decision-making. If you’re going to train young people to think about themselves as documenting the errata of everyday life, taking people to a city council meeting becomes an interesting exercise, and not just a boring civic torture. “What is this place? What is it for? What’s going on here? Who has power? Who has what kind of role?” Lastly, we take people to structures and infrastructures—a co-location facility, or a wastewater treatment facility—to be able to see all these things.

That’s one half of what we do. The other half is making. I define making as working with materials and representations to make sense of the observations, and to share those with others. I think that a couple of things are related. It’s not a process in which you observe and then say, “Okay, now I’m going to craft my representation.” The crafting of the representation is critical to observe in thinking about how you’re processing that information.

One is making maps of different...in the broadest sense of maps...trying to represent social and physical systems, whether that refers to people who are involved in the administration, or physically, such as, “Who owns the wire that goes into my house and gives me the Internet?” That’s important for a couple of reasons. One is that it helps discover knowledge gaps. As you’re trying to draw a system, you need to figure out what you don’t know.

Here’s a common kind of day-one exercise that we do with students. In the center of this image is a bladder. We tell people, “Draw everything that you think this connects to.” They think, “I believe there’s a city water tank that probably comes from here.” You get a sense of what people think the system they connect to is. That’s a great starting point for trying to figure out, “Is my assumption true or not?” “In what ways is it true?” and looking at those representations as different ways of getting to the place where they live.

Students engaged in Center for Urban Pedagogy exercise



Another thing that is critical, when it comes to young people in particular, is that it allows you to engage cynicism and teach civics in a way that's not just prescriptive, such as, "Here's how government ought to work." There's one way to approach thinking about your world, and you should always have a positive attitude toward it. A lot of young people don't really have a positive attitude, especially the ones we work with, who are typically in last-chance high schools. They don't have a posi-

tive attitude about the environment, or their place in it, or their place in politics. So having them make their representations and using those as a jumping off point allows us to engage that cynicism.

We had some very Goth students in a class that we were doing on garbage. They were mainly drawing anything horrible that they could think of. They wanted to draw when we were doing our workshops. We thought, "How do we take that and turn it into something else—work with that material?" It became a diagram of all the possible benefits and drawbacks of living near an incinerator, or a waste energy facility, or a landfill. We were able to draw from their dark visions, but also contextualize them within other systems, by saying, "Here's how the landfill works. But here's the [community benefits group] that gets you a lot of money if you happen to live by the landfill. And here's the kind of mutations that we discovered that happen sometimes if you're living near a landfill."

These are different ways. I think that that's powerful, not just because it engages the students, but in terms of making a final product through this work. It creates a representation of a system that creates a new way of seeing. A lot of adults are also cynical about how systems work, and seeing a system in a different light or contextualized in a different way creates an interesting representation that allows folks to engage with that material in a way that they might not do otherwise.

The last thing I'm going to talk about is this: I think that there are lots of benefits to making, but I think that just working on different modes of representation, working through material, is also beneficial. In a typical class, we make multiple products, maybe a half-hour documentary video. In one class, there is a documentary video series of posters—and this is, again, the garbage class—and also a proposal for what to do with Fresh Kills. This was at a time when the city had just closed Fresh Kills, and it's a long story. The students ended up designing a satirical proposal about what will happen to Fresh Kills in the future, first by imagining the site, building models, writing stories about those models, and eventually producing a composite narrative they called "Garbage City." In it, they were able to come up with a very dark narrative about how...mostly what we'd investigated in the

class were environmental justice issues, such as the fact that waste transfer stations were typically sited in low-income communities. Anyway, it's a different way of looking at these issues.



Center
for Urban
Pedagogy
students
interviewing
Raymond Kelly,
Chief of Police,
New York City

I'm going to pull back out. I think that it's important to process things in linear and non-linear ways. One of the things that you can generate out of this research, this investigation process, is that there are three categories. One is individual capacity. For the people engaging in the research, I always look to citizenship schools, the civil rights era, and citizenship as being both knowledge about how a system works, and also a feeling of entitlement. That's a photograph of students interviewing Ray-

mond Kelly, the chief of police in New York. I think it's important that it wasn't just a presentation by Raymond Kelly to the students. They were interviewing, so they were in a position of investigation. They were learning active citizenship, learning how to investigate issues, and then making as [being in] the world.

We also produce things. Thing-making is important, as are our embodiments of what that investigation has produced. We make all kinds of things from videos to posters, websites, comic books, teaching tools, and models. Then we distribute those things in public screenings, exhibitions, and discussions. Through the process of investigation, we typically find partnering organizations that want to use these materials to distribute and engage other audiences. This example is a street vendor organization with a project that we produced about vendor rights. Above is a sewer in a suitcase, which is a model of New York City's combined sewer system that we made into a fleet of tools that environmental educators use throughout the state. That's one important avenue of making, not only because it makes the process of research an authentic process (because there's an actual place for this stuff to go at the end), but also, we think that the representations are useful, and community organizations and even government officials find those things to be useful engagement tools.

The process of investigation produces *networks of knowledge*.

The last thing that I think the process of investigation produces is *networks of knowledge*. I'm going to mention three of them quickly. First, at the events and through public distribution of these things, the stakeholders that we met through the research process meet each other in person in a new space. You have academics who are finally meeting neighborhood activists who work on the same issue, something like incineration politics, meeting government workers who are

thinking creatively about how to organize those things. It's a different way and a different space for those folks to meet. We think that a valuable outcome of the research is that it generates a thick network.

Second is making tools that organizations use for public engagement. The last is that CUP, as an entity, builds deeper and deeper relationships within its local community of New York City, and mostly in Brooklyn, so that it has a rich community of folks to draw on as it continues its research. And that builds. The first project is difficult. By the seventieth project, a lot of folks know the work and are interested and excited to help out. We can pull them into an investigation to work on a particular piece. That's CUP's process of research and its youth program.

GROVER: Great. Thank you. The structure of this meeting is that presentations are going to be ten minutes, four presentations total, and then we'll open it up to a larger conversation. Moving right along, next is Susan Schwartzberg, who is a senior artist at the Exploratorium. Her work ranges from designing books to installations to public art, but her focus is largely on the urban environment.

SCHWARTZENBERG: When the day started yesterday with all the presentations about the Exploratorium, I know that everyone saw that we're a laboratory. So we've been in the dark for about 40 years. All of our experiments and our projects about nature have been on a tabletop, much like a science lab. Almost ten years ago, Pete Richards and I got a grant from NEA to do a project that would be outside of the museum, engaging science and art research teams to explore landscapes. We were in a little bit of a conundrum, because in the Exploratorium, we bring people in and we make them part of our culture, so they learn how to develop things as we do. But in this case, we weren't going to be in the museum, so I hoped that we would learn how to do things differently, and we would learn how to work with people who are in the environment doing projects.

It wasn't so much the pictures that got produced or the website that got produced. It was a conversation between practitioners who were biologists, artists, scientists, and geeks who like gizmos and gadgets.

In this case, we teamed up with two characters. One guy flies a camera from a kite, and he was exploring salt marshes that are being returned to their natural condition. You've probably seen these when you fly into San Francisco. In his travels, he found a guy who was looking at the same condition, only with a microscope. He was a retired biologist. They teamed up, and then a group of us started to explore these landscapes.

It wasn't so much the pictures that got produced or the website that got produced. It was a conversation between practitioners who were biologists, artists, scientists, and geeks who like gizmos and gadgets. Often, if people had families, there were even younger people who came along with us. This was an experiment, so we weren't necessarily assuming that they were going to become teaching tools or anything for the Exploratorium. But I think that we started to learn the vocabulary, and we also started to see the edge conditions around the Bay Area where we live.

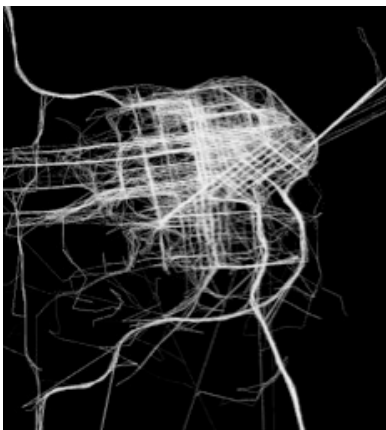
Exploratorium
*Invisible
Dynamics*
research and
development



We also began to work with local organizations, such as Literacy for Environmental Justice at Heron's Head Park. They have spent the last 20 years trying to dismantle a power plant, which, as you can see in the background, is being dismantled. We were able to get some of our teacher programs to work with them to develop an on-site exploratory...getting teachers into the landscape, also using these same tools. But also, part of it became a class on environmental justice.

What's really important about this for a big institution like the Exploratorium is that we don't normally engage in political issues. We can't, usually, because of funding and because we feel that learning should be fun. So it's important that we figure out ways to bring in some of these other kinds of issues. Eventually, we called this project *Invisible Dynamics*, the science and art of a sense of place. When we have money, we continue to give resources to artists to work with us.

Exploratorium
Cabspotting
Project



The image that's moving around there is a project by Scott Snibbe, Stamen Design, and Amy Balkin called *Cabspotting*. We have GPS feeds coming from those Yellow Cabs, and at cabspotting.org, you can see the whole project. They were able to trace the Bay Area by the way cabs move around in it. They created a series of visualizations, which gave this notion of the city as an organism in which the transportation system was the map, rather than using a map and then showing where cabs went.

As we've developed this project further, we also were able to move into the site where the new Exploratorium will be. I won't say we moved in yet, but this was the condition of the room that we first saw when we walked into this new space. Subsequently, we're now building a lovely glass box. This will be our observatory, using that sort of chair, looking out the window, as our symbolic next step in the Exploratorium.

Exploratorium
at Pier 15,
architectural
rendering



As you've heard, we're in the city and right on the edge of the San Francisco Bay. All of the work in the Observatory will be about observing, not astronomical observation, but observing the local environment, both the built and the natural environment. I studied CUP, and I've studied CLUI, and many of the ideas that they've worked with are things that we'd like to bring to the institution.

Exploratorium
3-D map of San
Francisco Bay



One of our projects that's in prototype form is a three-dimensional map of the Bay Area upon which we're projecting data about the San Francisco Bay. Right now, it's just the hydrodynamics of the bay. You can drop little electronic floaters in there and do a 14-day tide cycle to see where these things will wind up. We started developing this at the time of the oil spill, so it became an interesting tool for people to see what would happen. We'd like to develop this further, to put other kinds

of information on it, perhaps fish-tracking, development schemes, or cabspotting. Perhaps there's a way to layer both social and scientific information about the Bay Area, to see what kind of relationships might come out of this. It's experimental, and we're working with scientists as well as artists to use this as a platform for investigation.

Another developer has been working with the Bar Pilots, the Port of Oakland, and Stamen Design to see about creating a way for people to understand what kind of shipping is going on in the bay. There are ways that we can track ships coming in and out, but we're also trying to get some of the historic economic data of the Bay Area, so that we can build an economic picture of this bay. It is not just a body of water, it's a lifeblood for us and the rest of the world. We want to look at the trade dynamics over time.

We're also working with another artist. I call them artists, but they're all marginals in a way. Some of them are kind of scientists, kind of landscape architects, and kind of artists. This is Jane Wolff, who's developing a dictionary, as she calls it, but it's a set of flash cards. Her notion is that if you don't have language for something, you don't really know it. We're going into the landscape, trying to figure out how we can create simple visualizations of some of the dynamics, which people perhaps could bring with them in a stack of cards. Or perhaps it would be a handheld device. We're exploring a means of getting people out of the museum and into the landscape as much as we can.

We're also outfitting our roof with contemporary and historical weather instruments. Interestingly, we can understand a lot about the history of weather from everything, even from looking at its impact on trees and other things in the environment. But the weather modeling that we use for daily weather is the same modeling that is used for climate change over time. We're hoping that we can make sense of this to people. One artist that we're working with is Amy Balkin, who has developed an incredible cloud chart. She takes the historic cloud chart, but rather than charting different kinds of clouds, she's charting the effect that we've had on the atmosphere, such as the electromagnetic spectrum, which looks at airspace, climate change, remote sensing, pollution, and surveillance. She is creating a new kind of taxonomy that is interesting to see. As we explore weather, it's also important to see that we have a footprint in the atmosphere, in the same way that we have in the built environment.

I have a few more projects, but this is an exploration by an evaluator whom we work with who is taking GPS data from people who have taken photographs locally in the area. We have a tracking system about who is shooting what right around the building that we're moving into, and then we're putting together an image bank of the kinds of things that people look at when they're roaming around San Francisco Bay within a mile of our location. We hope that we can ask them to do some research for us, but we're not sure how robust this is.

I think that we're trying to take historic information to help people understand the footprint we have in this environment, not only from the point of view of science, or the geology of the area, or a map of world trade that positions San Francisco in the center of the world from 1915. We're also working on some historical things. We're working with the Prelinger Library, and bringing in the story of labor in San Francisco, and also working with the Transamerica Building to understand a little bit more about how you build a building like that on the edge of an old shoreline.

I think that our role is to try to bring the observing sciences into the Exploratorium, and also to send our visitors back out again with tools, or a better understanding,

so that they don't feel that everything they're learning is on the tabletop of an Exploratorium exhibit.

GROVER: We've gone from New York to California's Center for Land Use Interpretation. The parameters are the borders of the United States. The Center, which Matt Coolidge is the director of, was founded in 1994, and its mission is to disseminate information about the way that the U.S. uses, apportions, utilizes, and perceives land. Is that correct?

COOLIDGE: Close enough. We were founded as an institution in Oakland in 1994, and moved to L.A., the main office, in 1996. But we created our logo here in the Bay Area. As Andrea said, we...while Rosten and Susan were talking about micro as a way of looking at the regions around cities and out the back door, we take the microcosmic view of the nation and try to describe how it works as a machine to support our life, our economy, and our culture here.

We're looking for physical evidence, objects in the landscape that tell a story.

Rather than describe it from theory down, we look at it from the ground up. We're looking for physical evidence, objects in the landscape that tell a story. We're not natural historians. We look in the traditional sense. We consider humans as part of nature; in that sense, we are natural historians. But we consider humans as a fundamentally geotransformative agent that operate at the scale of plate tectonics in transforming the globe. There isn't a molecule in the surface of the Earth that hasn't been impacted by human agents of change. Therefore, we live in the era of anthropogeomorphology. Everything that we look at in the landscape is at least intentionally or incidentally a human product or byproduct.

We start from that as a given. We look at the multiplicity of points of view of landscape. We work in the realm of interpretation, because the landscape itself is meaningless. This physical material is nothing to us until we project onto it, until we interpret it, until we read it, until we talk about it. The layers of interpretation are complicated. Here you have a monument, and a guy with a hat describing the monument, describing the place, and then a guy with a video camera making a documentary about the guy with the hat interpreting the interpretive monument, and the photographer taking a picture of the guy with the video camera, and then me talking about the photographer. Anyway, just to illustrate the complexity of the interpretive arena, and realizing that information, as it passes through different layers, is transformed—it's the Heisenberg Principle of interpretation, where the effect of looking is an act of transformation.

Center for
Land Use
Interpretation
“interpreting
the interpretive
monument”



We also try to keep in mind other basic rules of interpretation, such as the oft-forgotten, “Everything you point out is everything else that you ignore.” The act of looking is an act of obfuscation. Usually, more is ignored by looking than you see by looking, if you understand my point. That’s something that we keep in mind. For every action, there is an equal and opposite reaction. That’s a very important observation point to keep in mind.

The Land Use Database is our filing cabinets of curiosity. This is the raw material from which we draw to do exhibits. The database is divided into states and categories. It’s a physical filing system as well as a digital one. We have a photographic archive associated with it. These are the primary categories that we use to organize things in the physical and electronic drawers. But increasingly, as information technology and website stuff change, we now have a tagging system that’s much better at accessing and retrieving information. Things can be many things at once, but you still have to put them into one drawer. Ultimately, there is a structural classification system that often runs counter to your intuition but is necessary in order to store and file. That is a fundamental paradox, which we’ve dealt with from the beginning.

Center for
Land Use
Interpretation,
database entry



This is a typical entry in our database. We describe sites all across America. We make a portion of them available through a searchable, scalable interface on the Web using Google Maps. The imagery comes from people who’ve worked with the organization over the past 15 years. These aren’t stock photos from representative organizations. They’re all ground-truth sites, images taken by people working for us. We have thousands and thousands of places depicted and described in this way. This is our raw material. It’s the things that we draw from for exhibits and other programs. It’s always changing.

There are different ways of parsing the data, if you will, the building blocks—different examples of land use that we’ve collected and documented. These are some of the thematic programs that we visit periodically over the years with various exhibits and programs. We also do things that don’t fit into these categories, publications we produce about places and roadways, guidebooks, tour guides, things like that. But primarily, we publish on the Web, and our existence is on the Web.

We grew up, starting in 1994, with the emerging Webscape. I've always dealt with this issue of being physical, dealing with physical earth and the representation of it through information media, increasingly through things like Google Earth and whatnot.

A minority of our audience comes on our periodic bus tours, which are associated with exhibits. If we do an exhibit about water infrastructure, we'll take a tour bus to visit these places, if it can be done logistically. We've taken trips to the dump, the Nellis bombing range, and Massachusetts high-tech sites. We've toured all over the United States. We also do a lot of van trips with school groups, usually graduate level architects, landscape architects, and art and design students. But anybody can ask us. Those just tend to be the people who do.



Center for
Land Use
Interpretation,
Terminal Island

Exhibits are of two types, and they usually are a combination. With regional ones, we draw from our database and then expand on it to describe a zone, a region, someplace that can be defined. The perimeter is described like an island. We did an exhibit about Terminal Island, which is the Port of L.A./Long Beach. In fact, that diagonal line is the town line, with L.A. on one side and Long Beach on the other. They've developed an artificial landmass independently. Its mouth is the biggest port in America.

**We begin to understand a place by asking, “Who lives there?”
“Where do they work?” “What are the big companies?” “Where
does their water come from?” “Where does their trash go?”**

This is Orange County, another kind of regional exhibit that we characterize through a clickable map and video, looking at the different land uses that occur there. This is similar to the way that CUP does a project...the Center for Urban Pedagogy. We begin to understand a place by asking, “Who lives there?” “Where do they work?” “What are the big companies?” “Where does their water come from?” “Where does their trash go?” You ask these questions, and you end up with a pile of information and a lot of things that you didn't anticipate finding, which become important elements of it. You can extrapolate from this pile patterns and themes that you can then investigate and express through the curation of sites to represent region.

Thematic exhibits occur irregularly across the country in some form or another, perhaps. This is an example of an exhibit that we did about automotive test tracks.

This is not CERN. I wish it were. It reminded me of it when I saw it. This is one of about two dozen auto company-owned vehicular test tracks in the United States. This is GM near Dearborn. This is Volvo out in Arizona. This is a project we titled “Autotechnogeographics.” It had, obviously, a reference to the Nazca lines. But this is a vehicular scape of America, condensed into test shapes, so you have a highway represented by circular tracks. We have a suburban grid. You have an off-road grid—different patterns of roads that a car experiences in the field. This is a nursery, maybe, for cars. It’s the automotive industry’s interpretation of a vehicular scape of America, condensed in different ways in different company iterations, often around Phoenix, often around Michigan.

This is Caterpillar’s sandbox out near Peoria, Illinois, where new models of the vehicles that built America—Caterpillar, earth-moving equipment—are tested, and new technologies developed. A giant sandbox, if you will, in the hills. Wonderful site.

Once something has occurred in a place—you cannot erase the fact that it transpired there.



Center for
Land Use
Interpretation,
Neversink, NY



Center for
Land Use
Interpretation,
reservoir

We can also look at places that are not visible. Often we do that. Once something has occurred in a place—you cannot erase the fact that it transpired there. Visible things don’t really matter to us. This is Neversink, New York, which is 400 feet underneath a reservoir in upstate New York. This is part of a project we did about drowned towns, towns intentionally drowned for water infrastructure. This is Butler, TN, which is underwater for the TVA and recently emerged in the ‘80s, when they drained the reservoir. People were able to go back home for the first time in 40 years. This is Main Street in Butler for the two weeks that the reservoir was drained.

This is a project about earthworks, as they transform over time, and how they change meaning. This site, Pratt Farm, Maine, has become an occult site. It’s associated with a land art site made by a land artist in the ‘70s, but a lot of locals don’t know how it was made. And because it uses ancient forms, people have suggested

that it might have been made by Norse visitors or people from other planets. That's how it looks today.



Center for Land Use Interpretation, surveying point

We're working on a project about surveying in the United States. Surveying points determine the boundaries of the Western three-fifths of the country. They are still there and are manifest in the landscape in interesting ways, such as this one, which is the surveying point for the entire state of Utah, established in the 19th century. They express the radial armature, in this case, of the Mormon church as well as the state of Utah. And now you get a sense of what we do.

GROVER: And last is Geoff Manaugh, who is a former senior editor of *Dwell* magazine, currently a contributor to *Wired UK*, and the founder of BLDGBLOG, probably one of the most popular blogs online. It's been described as "architectural criticism in literary form."

MANAUGH: Yes, I'm the author of BLDGBLOG. This just happens to be the most recent post that's up on the screen now. This is an interview with a British science fiction novelist named China Miéville. I'm showing this as a quick glimpse, not only to show the homepage of BLDGBLOG, but to give a sense of the kind of architectural ideas that I cover on the site.



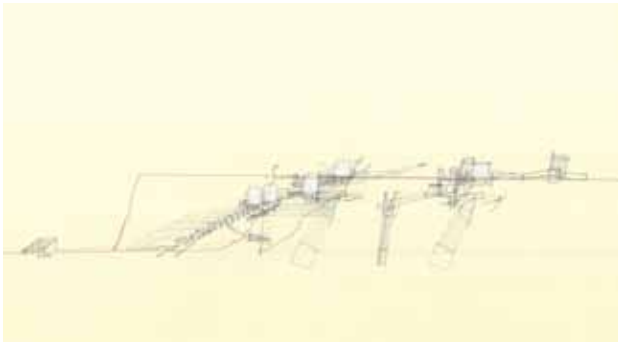
BLDGBLOG homepage featuring work by science fiction novelist China Miéville

It tends not to be, in fact, it is not building criticism or even necessarily a focus on the built environment as such. I guess you could say that it's architecture in the expanded sense, so it's everything from game design, or excuse me, level design in video games, to how science fiction novelists might see the city; what kind

of buildings they describe. As you'll see in some of the slides that I'll show later, it's architecture almost more in the sense of spatial anthropology. It's a lot of the things that we've seen so far summed up. I try deliberately to keep it wide-ranging.

It tends to be mostly viewed as an architecture blog. On the other hand, its tagline is "Architectural conjecture, urban speculation, landscape futures." That landscape aspect of the blog tends to be overlooked by people who think of it as an architecture blog. So it's nice to be here, discussing landscape and that aspect of it.

Moving on, landscape futures is one of the subtitles of my blog, and it's also the name of an exhibition that I'm curating, which opens in August at the Nevada Museum of Art. I'm excited about the opportunity to do this. It allows me to commission work from architects and artists to produce these mechanical explorations of landscape and space.



Smout Allen,
"Retreating
Village"

The example that I'm showing you here is by a British architectural duo named Smout Allen. They're the authors of *Pamphlet Architecture 28*, which is an interesting book from Princeton. The project that you see here is called "The Retreating Village." They

were looking at what would happen if you could salvage, save, or pre-emptively construct a self-protective village on the English coast. The English coast, similar to parts of the Alaskan coast, the American east coast, and so on, is eroding very quickly. Whole villages are falling into the ocean, and you can visit parts of the English coastline where half of the village is in the water and the other half hangs on a precipice. You can come back two years later and those houses will be gone, too.

If there were ever a Center for Land Use Interpretation in England, Matt would be interested in some of the laws there. For instance, if your house is on a cliff and you don't remove your house, and your house collapses into the ocean, you'll be fined for littering. So you have to remove your own house. The project here, to make a long story short, is an architectural idea that houses would be constructed on a system of rails in what are called rope gardens, which would be inspired by sailing equipment. You can gradually winch buildings away from the coast, retreating the village over time farther and farther from the coastline. These are study sketchbooks for the retreating village project.

These are other projects by a man named Liam Young, who's Australian, but he's an architect practicing in the UK. It's misleading to refer to him as an architect. He's



Liam Young,
Electric Aurora

almost like a science fiction writer who doesn't use words, and he builds devices and creates interesting graphics. What you're looking at is the Electric Aurora. Liam, who will also be in the exhibition, has an on-going interest with strange, anthropomorphizing landscape effects. In this case it involves creating little robotic supplements to things like the Northern Lights, the Aurora Borealis—little nanotechnological devices that would be launched into the sky and would be able either to trace the auroras or bring auroras to places that don't have them. We could have an aurora surrounding the Transamerica Pyramid here in San Francisco, provided you hire Liam to come to town.

Bioluminescence is a fascinating and understudied aspect of contemporary technology.

I love this example. He's really into things like bioluminescence. Bioluminescence is a fascinating and understudied aspect of contemporary technology. These are called bioluminescent billboards. They are mobile living creatures that would walk around town with non-electric billboards that would show advertisements. It's kind of a living iPad, but it's actually biotechnology or, excuse me, it's bioluminescent bacteria that create the images. They become a kind of living pixel.

It's those kinds of ideas, somewhere between landscape, science fiction, and architectural design, and many other ideas that will be in the exhibition in the Fall. Recently I had a fun opportunity to host the Landscape Futures Super Workshop, which brought a lot of the people who will be in the exhibition to Los Angeles where I live. Matt was gracious enough to host us at the Center for Land Use Interpretation, our home away from home. We explored the landscape of Los Angeles, where the landscape becomes infrastructure, where architecture becomes mechanical, and how the city allows itself to function. So in many ways, it was a nice summation of all of the things that we've seen so far, an infrastructural approach that you saw with Rosten's presentation, and some mechanisms and whatnot that also came up in Susan's.

What you're looking at here are debris basins. You might not know that Los Angeles is surrounded by a landscape of debris basins. The hillsides are constantly collapsing and avalanching into the neighborhoods. The debris basins are massive; effectively they're dams without water that collect all the gravel, boulders, mud, silt, and rainwater that come out of the hillsides on a near-constant basis. They're really quite beautiful. They're prismatic structures that are on the edge of

the city, as if the city is surrounded by voids that protect it from its own geological circumstances.



Debris Basins

We took a tour of these debris basins, and we got an introduction to the area from an Army Corps of Engineers site manager, who was unbelievably nice but had a doomsday attitude toward the mountains. He kept looking up at the mountains and saying that there's a "geologic problem." It was interesting—almost like something out of *2012*. He has the idea, and apparently this is a prominent idea within the Army Corps of Engineers, that the hills are on the verge of a catastrophic collapse

in some of the outside neighborhoods. It will be interesting to see if that comes true in a geological Katrina moment.

On the other hand, what I think is cool, too, is that debris basins are a bit like old star forts from medieval fortifications. They follow some of the same trigonometric and geometric principles as old engineering programs. So we tried to design student interventions into these dynamic landscapes on the edge of the city, and to incorporate them into landscape futures idea.

If you find artificial glaciers on a relatively minor scale being built by villagers without the benefit of modern architectural technology—Caterpillar earth-moving equipment and even fossil fuels—what would happen if you gave these same techniques of ice-harvesting and ice accumulation to architecture students in New York City who have budgets and can create these sorts of things?

This was a glacier island storm, which was a studio I had the pleasure of teaching a year ago at Columbia University's architecture department. I was fascinated to read in *New Scientist* and the *Christian Science Monitor* an article about artificial glaciers being built in the Himalayas by villagers. It's being done without massive Caterpillar earth-moving equipment. In north-facing, very cool hills and valleys, the villagers pile up snow that is already there, or which is brought to a region, and then a deliberate layer of sawdust is added, which is a very good insulator. Clay gourds full of water are used, and other kinds of catalysts for water to freeze around. Gradually the layers, like an ice-cream sandwich, accumulate in the valleys to form an artificial glacier. They are used for fresh water in drought years. When there hasn't been any snow or ice on the hillsides, you can go up and

harvest the artificial glaciers. What was interesting is that the author of one of the articles points out that there's a myth, or urban legend, in some of these villages that when Genghis Khan was stomping the fields of Central Asia, their village ancestors built a whole series of artificial glaciers to keep the Mongol hordes from invading.

If you find artificial glaciers on a relatively minor scale being built by villagers without the benefit of modern architectural technology—Caterpillar earth-moving equipment and even fossil fuels—what would happen if you gave these same techniques of ice-harvesting and ice accumulation to architecture students in New York City who have budgets and can create these sorts of things? My students had a travel budget, and while they weren't able to visit the Himalayas, they were able to go to Switzerland and observe the same sort of glacial management, ski resorts, and whatnot in Switzerland. Whether they learned anything is still to be debated, but they had a good time. And only one of them broke an ankle.

On a technical level, it is exciting to think about architects dealing with large-scale geotechnical and geological formations, but we also had interesting narratives come up as to who would build this and why. We heard some very interesting ideas. For instance, let's hypothetically say that in 25 or 30 years, the price of fresh water is going through the roof. You can easily imagine a rogue branch of Goldman Sachs building itself an artificial glacier farm somewhere in the plains of central Canada and hoarding water, so that when the price hits a high enough point, they can sell off their illegally accumulated fresh water through an artificial glacier farm.

I'm running out of time, so I won't talk about synthetic fossils and what will happen to cities in 100, 200, or 300 million years. There's a geologist at the University of Leicester who's asking these questions and looking into it.

I'll end with another idea of looking at landscape in space. What I like doing with my blog is not just sitting at home in my underwear and typing, which is sort of the stereotype of blogging. That's definitely a fun thing to do, but it's more exciting to take your audience and your connections to various industries and people with different backgrounds. Bring it all together and design teaching studios, or curate exhibitions, and so on.

Landscapes of Quarantine was a design studio and exhibition that my wife and I put together in New York City in the fall of 2009 at Storefront for Art and Architecture. Quarantine, at its most basic, is keeping A separate from B, spatially separate from B, for a certain amount of time so that there's no contamination or contact between the two. At its heart, quarantine is a spatial question and an architectural question. We asked, "What would happen if we got a whole bunch of people

together to talk about quarantine from a lot of different perspectives?” We had a fiction writer, a video game designer, a guy who works for the New York City Office of Emergency Management, a couple of architects, a photographer, a musician, a set designer for a theater, and so on. We all got together every Tuesday night, and we talked about the spatial implications of quarantine across all our disciplines. The results of that went into the exhibition.



BLDGBLOG
Landscapes
of Quarantine
exhibition

Quarantine is interesting because there are quarantine spaces, but then quarantine is also just...if we all came down with Ebola right now, we would be locked in this building and we wouldn't be able to leave. We'd be quarantined—isolated inside this building. Quarantine has the interesting implication that no one is ever prepared for

quarantine to happen. And so it's kind of an ad hoc manipulation of architecture as it exists to turn things into quarantine wards.

Architecture is a very dynamic and exciting field, as well as landscape, and it pops up in places that you might not expect it, from descriptions of landscape in gothic horror novels, to video game design, even to the kinds of dreams you might have of impossible houses or mansions that you can't escape from.

I could talk about that at great length, but in summation, what interests me is using the blog as well as studios, lectures, exhibitions, publications, and so forth to explore questions of space, spatial anthropology, and to get away from the sense that architecture needs to be limited to skyscrapers, opera houses, concert halls, new housing developments, and so on. Architecture is a very dynamic and exciting field, as well as landscape, and it pops up in places that you might not expect it, from descriptions of landscape in gothic horror novels, to video game design, even to the kinds of dreams you might have of impossible houses or mansions that you can't escape from. All of that should be subject to the kinds of conversations that we have about landscape, about architecture. I'll leave it at that.

GROVER: All right, thanks. I know that there were a lot of overlaps in terms of methodologies at this table, so why don't we start by asking each other questions, and then we can move out into the room. I know you had a question.

WOO: I have some questions for Matt. Certainly your work has been influential to all of...I think I saw a CLUI exhibit when I was in high school.

COOLIDGE: Wow.

WOO: It was important to me. I have your poster. But I've always been curious about the CLUI house style because there's a certain kind of photographic format, and there's a certain kind of high objectivity to the way that the investigations are presented to the public. I'm curious, given how many collaborators you have and how many different folks work on CLUI projects: What do you think of as the CLUI house style? Does such a thing exist? I think that it does. How do you create that, or how is that set up through different kinds of collaborations and projects?

COOLIDGE: The house style is a closely guarded secret. It's a balance between pragmatism, resources, scarcity, and whatnot. Form following function is a way to describe it. You want the material that conveys information to be relatively transparent, because we don't want people to get bogged down in the medium, but to get straight to the message. Photographs are most useful to us if they aren't too photographic, if they aren't so good that you get caught up in the language of the individual photographer who's being clever and interesting as a photographer. That gets in the way of looking at the place, potentially.

WOO: They are really good photographs. You don't just randomly take photographs like that.

COOLIDGE: But they're not so good that they...right?

WOO: It's a certain kind of objective style, more than no style, or something like that.

COOLIDGE: Yes. It's a documentary style. And you certainly don't...I mean, photographs can be too bad, too, in which case they're about informal snapshotting as you're driving by, or something. We have to find the middle ground. It's a functional photograph, and it's ideally one that has enough sense of composition and art history that you aren't disappointed by it, but not so much that it becomes a puzzle and a point of attention, the photograph itself.

We see these photographs as windows. Ideally, people look through them at the places depicted, and we're just framing views of places, because our material culture and our museum, if it is one, are places that you can't bring into the art exhibit spaces, because they're buildings or towns or bombing ranges or whatever. You just can't bring them into a museum. If you could, you'd change them irreparably by changing their context.

We have to make shorthand descriptions of them, using photography and text. And then, if we can, we'll take people to these places on a bus tour, and that's really where you begin to experience them first-hand. That is what, ideally, we would do for everything, if we could have a pneumatic system of tubes to shoot people out all over the place. Or if we had three-dimensional webcams with Sen-surround everywhere, that would work, too. But we have limited resources. We've got to work with what we have.

We do more and more video, for example, because that's more like seeing. As video technology gets easier and faster, we'll do more. But ultimately, we understand that the medium is...you have to acknowledge the language of the medium, but it shouldn't stop there. It's really just a way of telling the story about the place on the other side of that depicted realm.

I don't know. Different people have different skills at the Center, and they contribute in different ways. But we've been doing this for a while, and it's how it evolved. I don't know what the house style is. It is what it is.

SCHWARTZENBERG: Can I ask you a question? I wondered about the impact on the young people that you're working with. How long have you been doing it, and what do they do after they go through your program?

WOO: We've been running youth programs since...I should say CUP has been running youth programs since 2001. Almost nine years. I think it started out with eight students a semester. Now we run our program, so we probably have 200 students a semester, not in a single class, but throughout the various programs that we're running.

SCHWARTZENBERG: Do the students apply to be part of the program, or is it within a particular...

WOO: It depends. All of the work is strategic in terms of which schools we decide to work with, which after-school programs we decide to work with, but we certainly don't have a master plan, such as, "This is who we want to work with." It always depends on an individual or after-school program finding out about what we do, contacting us, and bringing us in. The conditions can vary dramatically.

Generally speaking, some of the students are in high school, and they have to be there. They're not opting in. It works better when it's an after-school program or an alternative to a traditional class. CUP and other youth-education programs do a certain amount of tracking of educational outcomes. There is a rubric, and sometimes we'll have to present that and say, "Okay, the students can do x, y, z, and

that's how they get credit for this when they're exiting the school program." But that's not what we think of as the primary outcome of what we do.

We don't think of our goal as getting so many college entrants into the program. We do a little bit of tracking. Probably a little more than a third of our students are college grads. Our programs are in no way a stepping stone to a college education. I think that's important for youth education. It's not what our program brings. What we think of as an outcome is students staying engaged in their communities, staying engaged in politics and investigation, that kind of stuff.

SCHWARTZENBERG: And that happens?

WOO: That does happen. We keep in touch with a lot of the students who come through our programs. And a lot of times, the students, through that investigation, end up in contact with other community organizations, and they stay as youth members and adult members eventually.

MANAUGH: Susan, when you were talking, it reminded me of...I think it's in *The World Without Us* by Alan Weisman, a book that came out a couple years ago, in which he makes the statement that when you look at all the ruins that would be left behind if humans disappeared overnight, after all the houses had fallen apart and all the cities had disappeared, the one thing that will last the longest, and will be the proof that humans were ever on the planet, is the changed atmosphere.

I was thinking of that when you were showing the changed weather atmosphere, because of the carbon levels caused by auto methane—although even methane disappears faster than carbon dioxide—but the anthropomorphic atmosphere will be the thing that lasts the longest. I was thinking about that when you were showing the weather systems and Amy Balkin's work. I'm curious about your, or the Exploratorium's, interest in things like weather and climate change. Can you talk more about that aspect of your presentation, which I thought was very interesting?

SCHWARTZENBERG: We're in a little bit of a conundrum about climate change. And there's our boss over there.

MALE VOICE: Should we ask him to leave?

SCHWARTZENBERG: I think that the Exploratorium is slowly coming out of the darkness and into the light. We're interested in the environment, and we're trying to come up with an approach to it that helps people understand how to read the prediction data that's coming out. Amy's work is interesting in that the huge umbrella project that she's working on is to designate the atmosphere as an historic preservation site. If we can help her accomplish that, which we are a little bit, it

would be a great symbolic gesture that institutions like ours, if they are serious about art and some of these issues, will support.

COOLIDGE: We operate a residence program in the salt flats of Utah. We have to be concerned about local politics in order to run the program. And yet, we're able to get artists to do really interesting things. We say, "Well, they did it."

SCHWARTZENBERG: They don't work here.

COOLIDGE: Our program was supported by the NEA, which I think was happy to support residence programs, since they couldn't fund artists directly for political reasons. Everybody benefits by engaging artists as researchers in the realms where politics becomes an issue.

BARTELS: This question has great relevance for this community and what we've been talking about in the last day and a half, which is that we've worked hard at the Exploratorium, teaching both art and science as process, not as truth, not as product, not as absolute ideologies of any kind. And the danger with a lot of our sister institutions, if I can be so bold, is that they're treating climate change as a marketing message. They're presuming the voice of authority in that marketing message. In fact, they're using their credibility for that.

The one thing that we understand about art and science is that these are dynamic, changing fields, and science is the best explanation for certain data at a moment in time. That's always going to be changing. Our risk is that if we resort to marketing messages and pretending that it's the truth, not only are we misappropriating science, but we're underserving it, or disserving it.

The one thing that we understand about art and science is that these are dynamic, changing fields, and science is the best explanation for certain data at a moment in time. That's always going to be changing. Our risk is that if we resort to marketing messages and pretending that it's the truth, not only are we misappropriating science, but we're underserving it, or disserving it. As the models change, as the explanations get better or different, or even as we better understand science as a process, if we resort to marketing messages, we're setting people up to be very angry with our disciplines and with people in science who are trying to do this work and understand it as well as they can. I also think that science as marketing doesn't treat the end-user as an intelligent learner in, and of, their own right, capable of thinking for themselves.

So we stood back and said, “It’s not our job to tell you what to think. It’s our job to help you think for yourselves. And what are the ways to do that?” I think it’s too easy for a lot of people, particularly in the education field, to resort to simple marketing messages that hurt us in the long run. But what does that mean? It’s a hard thing in practice, and the teams and staff are starting to ask, “What does that mean in practice?”

GROVER: Michael, did you have...

NAIMARK: I have a simple question for you all. Google Earth: good or evil? Seriously, about a year and a half ago, I guest-taught a class at NYU’s Interactive Telecommunications Program, called “Representing Earth.” The idea was to get students to help make pedagogical sense of Google Earth, Maps, Flickr, geotechnologies, and whatnot. They did a summary that’s easy to find online. But I’d like to hear what you find good and what you find critical about Google Earth.

COOLIDGE: I think that those things collectively are as important as the discovery of longitude in terms of looking at landscape and land use in America and the globe. It’s totally blown open the ground and made it visible, so long as things don’t begin to get fuzzier and fuzzier. I think that the window was more open a little while ago, and it is closing a bit as things fuzz out and people begin to edit the resolutions of those resources. I think that’s an issue. Maybe we’ll look back on these as wide-open days. I don’t know.

In general, creating a geospatial template to bring people together over the same map is revolutionary and wonderful. I hope that the technology stays free and that other people can develop similar systems that become public domain and aren’t controlled by private corporations so much. But for now, Google seems to be doing okay, and Bing and others are getting better at Google too, so yes. This is the Google Maps/Google Earth stuff, and not the rest of Google, which is a separate issue.

MALE VOICE: Are past images of Google Earth archived, or are they just replaced?

COOLIDGE: Sorry?

MALE VOICE: Are past images on Google Earth archived, if we look back over the history of those satellite photographs, or are they just replaced?

COOLIDGE: Somebody else can probably answer that question better, but we’ve been going as fast as we can to make images of Google sites that might disappear. Hopefully, if they aren’t keeping a log, they can call us in a few years.

WOO: That kind of a direct line to Google Earth is, if not evil, at least problematic as the repository of this information, for the reasons that people aren’t sure if

there's an archive. It's not transparent about how often those images are refreshed and that kind of thing. I think that something like the KML format has become de facto. "Oh, we'll just use this KML format, because that's what Google uses, and we want to be able to upload our geodata, so we'll use this platform." It's really wonderful to see such a successful platform.

But something like OpenStreetMap or GeoCommons are clearly where people need to go to preserve this kind of information. It's astonishing how primitive in some ways the ability to share GIS data is; how locked it's been, considering how free other formats are; just how ridiculously hard it is to translate one format to another, even for people who are professionals in the field.

One thing that relates a little bit to the CLUI style question: One of my favorite art projects is John Rafman's *Nine Eyes*. I don't know if people are familiar with this, but it's a wonderful use. It is a kind of curation project of Google's Street View, but he's found astonishing images from all over the world. He considers this the first medium of truly objective photography, because it's like an automated single photograph of all these places. It's a really great archive of poetic moments in the world's surface. Just a plug for a project that I like.

MALE VOICE: I have a question for the table. Everything that each person talked about had an element that was objective. And certainly you make a real effort to portray things in objective ways. But it also has a sort of poetics to it. There's something cool about those giant auto test sites. And there's something that's also weird and terrible about them in another way. Everything, I think, has that kind of balance in some ways between...you could look at things both as aesthetically interesting, and also as politically meaningful. Everybody, I think, makes an effort not to take a position on something very overtly, because that's not as interesting as portraying them in a more aesthetic way.

It feels implicit. It feels like, "Okay, come on, guys. You can tell me." It feels as if there's a political aspect. I'm wondering how you relate to that...will you admit to that? How do you handle the politics of everything you talk about?

COOLIDGE: Me?

WOO: Clearly he's describing one person's work here.

COOLIDGE: Rosten, I wonder if you had a line. Everything is political, of course, and I think that people are used to seeing the land-use stuff described in a pro/con polemical, activist way. I think we perhaps stand out as being more objective in the relative scale of things when you're used to things being so polemic. We're not

neutral. Obviously, there's a selection process, a curation that suggests, "Look at this, and not at all the other things that you're turning your back to."

But I don't think that we're apolitical or non-political. I think it's a relative scale, and we're somewhere more in the objective part of the spectrum, but we're not non-political.

I think that there are politics there. I think we're asking people to think of things, and that, perhaps, in itself is a political gesture. Information getting out there will enable people to make better decisions. There's even an activist component if you look for it. But I don't think that we're apolitical or non-political. I think it's a relative scale, and we're somewhere more in the objective part of the spectrum, but we're not non-political.

MALE VOICE: That reminds me of something that I heard Trevor Paglen say a couple of months ago. He's an artist here who works in areas related to you. He said that he's thought it out. He sees himself as revealing secrets that are there, and to some extent revealing those secrets in visual ways. He said that he started out thinking that revealing secrets was going to be a politically progressive thing. He increasingly came to believe that nowadays you can reveal secrets and nothing will happen.

We're quite happy that there are open secrets lying around, and that further things need to happen to effect political change. I'm relaying what he said. I don't have a view about it myself, but I took pause at the question, the very idea of revealing stuff, which obviously can be a visual practice, revealing stuff as a political work.

WOO: On the two ends of our projects, I would say that our work is adamantly political and very invested in particular, as in, "This is a bad thing that's happening in the city." And we'll even partner with an advocacy group to release it, and they'll take on the role of distributing.

I think that it's important, as an educator, that we don't start our projects in that mode. No project starts with, "We're going to investigate the dirty politics of Internet infrastructure ownership in New York City." It is as earnest a question as the investigation. And it's critical, for a variety of reasons, to start with an open-ended investigation that is not a foreclosed political conclusion at the end. But once you've made something, and you have heard some stakeholder positions, we jump in and make a point very frequently when we can.

MANAUGH: I might add that I've found in my work, both as a blogger and as a teacher, that there's a different sort of interpretive lens that people have when

they approach a project either as architecture or as art. An example of that would be somebody like Liam Young, whose project I was showing you earlier with the bioluminescent billboards. Even Liam describes that project as, “There’d be these annoying little creatures that would run around. They’d flash advertisements. They’d be using bioluminescent bacteria. They’d breed. They’d take over the city like squirrels.” And that’s clearly a dystopian negative image.

I found that when negative comments are left on BLDGBLOG, it tends to be people from architecture saying, “Why on Earth are you recommending that we build these things?” There seems to be an idea that you’re proposing something, or that this is an actual recommendation. As if we are saying that this kind of thing should be built. What’s interesting is that if you put that into the sphere of art, people say instead, “Oh, wow, that’s really beautifully realized,” or “What a cool idea.” It tends to be a different interpretive lens.

That’s a generalization, but I find that a lot of the stuff that I find interesting on a narrative level—that maybe sets things up for a future novel or screenplay, or is simply an interesting idea in an art sense—is rejected violently by the architecture community, because they think that you’re recommending that it be constructed. With a lot of speculative work that verges on the Darth Vader side of things, it’s interesting that you have to couch it rhetorically. It’s something that I’ve realized with blogging. There’s a political aspect to it that you have to be aware of if you’re couching it as architecture.

How do we counteract the oversimplifying of everything? How do we bring the complexity of these issues and what’s behind them into civic discourse? It’s a fabulous question to work on, and one that we absolutely love at the Exploratorium.

BARTELS: I think it’s to confuse complexity with objectivity. What I mean is that none of our institutions are able to...as you said earlier, everything’s political. The Exploratorium, in particular, is. Internally, it has its own view of things, it’s the way the political discourse, the rhetoric, has simplified, oversimplified everything to such polemics that it’s part of the paralysis that people feel, because everything is black and white on all these issues. There hasn’t been a place for a long time where the complexity, the complications of deep issues that are deeply embedded in the landscapes of science and art, come out in their fullness. That empowers individuals to act, or to be sensitive and smart actors in those domains, as opposed to charlatans. How do we counteract the oversimplifying of everything? How do

we bring the complexity of these issues and what's behind them into civic discourse? It's a fabulous question to work on, and one that we absolutely love at the Exploratorium.

MALE VOICE: I thought perhaps that I was going to hear more about the rationale behind establishing organizations that sit outside the traditional, institutional framework, exclusive to the Exploratorium, which has a clear institutional model, although it, too, has generated subsets of enterprise that sit outside it, as Susan illustrated. That lineage comes out of a clear conceptual art practice of building administrative systems that then become authoring systems in and of themselves for the issues that you're illuminating. How do you see what you're doing as an enterprise, being read, being understood? Is it being understood as an art project? Is it being understood as an art science project? How do you position it?

WOO: For all four of us?

MALE VOICE: Anybody. For all of you, or all at the same time.

SCHWARTZENBERG: The name of this panel is Nondisciplinary Practice or something, so I would hope to invent something other than the fields that we feel so tied to that we are genuinely trying to create new ways to see these things, and perhaps get different audiences than the ones that we always talk to.

MANAUGH: In the Landscapes of Quarantine studio that I showed, my wife and I would joke that we set up a counterfeit university. That was before I started teaching anywhere officially, and she wasn't teaching anywhere, either, but getting people together on a regular basis every Tuesday to discuss quarantine, from video games to the emergency management of New York City. It was the idea that if you can counterfeit, and if you can counterfeit pharmaceuticals, and if you can counterfeit software packages, why can you not counterfeit the university experience? It was in some ways meant to be more self-effacing than it can be interpreted, but that's one way that I was looking at it, as a counterfeit institution that's outside other institutions, but which mimics the—it's almost like *Predator 3*, where it's mimicking the thing that it's trying to destroy.

COOLIDGE: I came from an environmental science background, and art history, and film, but I got frustrated with how the world was supposed to end because of overpopulation, the Club of Rome, whatever. It didn't happen. My point is that certain elements in environmentalism were stuck. To engage in a direct discourse with the ground, I thought, with the other people who helped create the organization, was a good way to hit a reset button and start again from the ground up. Literally asking, "What is that thing in front of you?" "How to get there?" "How is it connected to other things?" "What is its effect?" "Who owns it?" "Who operates it?"

To learn the language of land use from the ground up in the anthropogeomorphologic era that we're in, which started when the bomb went off in 1945 or whatever.

In a way, the modern era began at that point. We became fully what we are today after World War II. Most of the structures and infrastructures that we use electronically and otherwise are technologies that emerged out of that World War II hotbed of development. In a way, our zero point historically is when that bomb went off and created most of what you see in the landscape of America. And we're just looking at that stuff and asking, "What is it?" We're building up a new map, a new way of looking at the ground, where the common ground is the stuff in front of us, without all the stuff above it, all the politics, and all the theory.

Let's look at the ground and build up from there. It's sort of idiotic. It's childish in a way. It's like what a kid does with Froebel blocks. We are Froebelists in that way. The world is the kindergarten. "What is that object, and how does it relate to that other object?" Build it from the ground up. We decided to create an institution that wasn't like other institutions in that way, although we certainly had aspirations and models, things like the Smithsonian, which is a great museum. In a way, we're about America. The Smithsonian has research arms. We have research arms. The Smithsonian has multiple sites. We have multiple sites.

MALE VOICE: I bet people confuse you two.

COOLIDGE: So that, I guess, is a model. In a sense, National Geographic was another kind of model. But it wasn't about drawing from different inspirational resources, starting from the basic nothing and building it up as much as we could. That's why it's non-disciplinary, because we don't engage the tools of various disciplines so much as we do what common sense or basic idiotic mechanics suggest that we do to figure this out.

FEMALE VOICE: I work with Susan on a lot on the Observatory ideas. One thing that is perhaps a common theme is that there's a process involved and an investigation. It doesn't have to be a multi-disciplinary or non-disciplinary description, but it's letting people in on that. It's the investigation and letting people in on how you can instruct or understand this. It's very much what we want to do with the Observatory by bringing in instruments, data, and interpretations, and letting people think about the effects on the landscape, the atmosphere, and the water all coming together. This emphasis on process is also really Exploratorium. We give people the tools to process themselves.

WOO: A couple of things about CUP: We started when we were very young, and there weren't other institutions that would have us as the founders of their organization. It was a way to work together, to have a corporate name and a collaborative

partnership. We did have some models, such as CLUI, which started as an art practice. Here's a collaborative name for our art practice. It had a silly, somewhat pretentious name: the Center for Urban Pedagogy. You would never expect a bunch of 21-year-old kids to be a center for urban pedagogy.

But just having that name over time was similar to telling a lie enough times so that eventually it becomes true. Now, ten years later, we believe that calling ourselves the Center for Urban Pedagogy was a good thing because it allowed the center to become an institution. People treated it in a different way, through a lot of post-facto organizational work. When it first started, we didn't think, "Here's how we're going to run it, and here are our departments, and here are our program areas." But after you've run something for ten years, if you want it to continue, you have to give some thought to how you are going to structure your program areas. How do these things work?" And now it's an actual institution. The original founders have transitioned out, and passed it on to other people who have energy, ideas, and can inhabit it as a structure.

Just naming something an alternative institution turns it into a different endeavor; a place that people feel they can enter and inhabit in a way that's different from how they might feel if it carried the founder's name—that kind of corporate. So when you hear about the Center for Land Use Interpretation, you think, "Can I volunteer?" And that's something that you wouldn't necessarily do if you were looking at Amy Balkin. You wouldn't think, "I'm going to intern at Amy Balkin Enterprises." It's a different kind of front door, I think. And that builds a structure that is powerful.

GROVER: I think that in both cases it lends credibility and an officialness that gains you access to places that you wouldn't have access to if you were Insert-Artist-Name Enterprises, or even if you presented yourself as an artist or a creative person, which I found interesting. Susan may be the only person who identifies as an artist at this table in terms of what our bios say. And I know that Mel Chin was saying this earlier with the Fundred project, that when he's talking before Congress, he never presents himself as an artist. He presents himself as the director of this project. So there's something to be said about creating a very official title.

It's not just the product, it's how that product or the outcome is situated in the world. And that's a direct result of how you formulate your enterprise.

COOLIDGE: A lot of discourse takes place in the realm of corporations, non-profits, and other institutional entities, so why shouldn't there be more diversity in that realm? That's what we were thinking.

MALE VOICE: That is a political position that perhaps different enterprises are intentionally assuming, which affects how they're understood externally, both from a curatorial position, but also just generally from what the activity of these enterprises is about. That lends a great deal of substance to the interpretation of the product that's being generated. It's not just the product, it's how that product or the outcome is situated in the world. And that's a direct result of how you formulate your enterprise.

WOO: That kind of idea of access cuts both ways. There's a great Joan Didion quote, "My only assets as a reporter are that I'm small and totally unassuming, so people don't take me seriously in any way." I think that in some cases, CUP gets a lot of access because we design our investigations to have student involvement. People think, "Oh, students, come on down. We'll do a little dog and pony show for the students." And students also have a different relationship to what kinds of questions they can ask. You can play with, and stipulate, the idea of an artist being able to produce certain kinds of projects for you that you might not be able to produce. You can play with the kind of corporate structure that produces and hides legitimacy in different ways to gain access.

MALE VOICE: It's important to remember that the legacy of art in a system's art, earthworks art, and performance art from the 1970s, has been a professional divestiture of its identity in favor of becoming whatever else it's like in the world: sociology, land management, education in the classroom, law, whatever it is. The question isn't any more, "How is what you're doing art?" but perhaps a batch-on-the-shelf memory, a legacy of the fact that 30 years ago, a lot of people experimented with art to figure out how they could be artists without necessarily producing conventional art.

That's what I was talking about yesterday with Allan Kaprow. He was interested in un-arding. Everything was always a verb, not necessarily non-art. Nonetheless, what we end up with is a creative legacy of how to be like what's in the world, which is a very American tradition, rather than how to aestheticize everything. And that legacy, I think, bears its fruit in conferences and organizations like the ones you're working on. I don't know much about what any of you are doing specifically, but the model is extremely familiar from a long time ago.

MANAUGH: Another thing that's happening is that while there is an un-arding of art, there's also an up-arding of the world. It seems that Matt came from an environment that's not artistic, but yet, he's in some ways the aesthete. An artification of the world is taking place that needs un-arding of the place where these guys are.

COOLIDGE: Allan Kaprow and others—Hubler and whatnot—were great laboratory technicians in the arts, but they always called themselves artists. And that was

ultimately how they branded themselves. I think that we learned from them perhaps quite a bit. Also in terms of processes and things, but to say that we can take the artist out of the equation and call it shared existence, because it's not art, it's just life. It's all this stuff around us. Why do we have to call it art for it to be art?

If you can take those kinds of activities and allow yourself permission to see the world in an artistic way without it being labeled, "This is art. Look at it," with art history baggage and everything else you need to give it value. We're trying to get people to see the world in that way, but without the art label, and in that way to get it outside of an art discussion and get it out into the world, and that's...

MALE VOICE: Art is busy doing different things in 2011. It's busy being art fairs. It's busy being global currency. It's busy bringing China into dominance. There are artists like Mel Chin and thousands of others who are working on the same kinds of subjects as you are.

COOLIDGE: Sure.

MALE VOICE: But that's not what the art world's any longer concerned with. It was; it's not. You guys are now beneath the radar in terms of the art world. When Allan Kaprow realized that everybody thought that they knew what a happening was in 1961, he said, "Well, fine. They can have that rumor. Meanwhile, the rest of us continue to work in relative privacy, doing what we want." That's more or less where you are, at least in terms of the art world's perception of the value of the follow-through of this kind of research from the 1970s and '60s.

GROVER: Amanda?

CROWLEY: We need to remind ourselves that the art world is actually in New York City this weekend, at Art Basel.

Art is the arena that doesn't fit other categories. That's why we're there. We can't deny that we're part of the art world, but we're part of the rest of the world, too. And the art world does tend to see itself as distinct from the rest of the world in a lot of ways.

MANAUGH: I want to push back on that a little bit, because I think that some of the practices, while they don't self-contextualize inside the art world, operate inside it. Matt's work is shown in museums, so it's not outside of it. We're in a moment—

maybe I'm just speaking for myself—where there's a real willingness on the part of these small institutions to sustain an ambiguity about where they're culturally located. It's not about aggressively saying: "We're not in the art world" or "Don't look at us as art." There's something opportunistic about it in the best way. There's a lot of interesting context for this kind of work to be viewed in, and if we're willing to circulate through those... Maybe Matt can speak on that.

COOLIDGE: God bless the art world, because we'd have no resources without it. If you follow the money, that's where it goes. Or it goes back to the corporations that built endowments that support art. I don't know. Art is the arena that doesn't fit other categories. That's why we're there. We can't deny that we're part of the art world, but we're part of the rest of the world, too. And the art world does tend to see itself as distinct from the rest of the world in a lot of ways.

MALE VOICE: It's a matter of point of view. I'm interested in how work like this expands the notion of what art can be. But that's a minority interest. John Cage was accepted by the visual arts world in New York in the 1950s, not the musical world. So it is still a place for experimentation, but one level of experiment is how art can be a global currency. The exchange rate between China and the U.S., in terms of the currency of art, is extremely unbalanced. There's no American art world in China, to speak of. Everything's coming here from China. So a lot of interesting stuff is still happening. The thing about art that's interesting is that you can claim anything you want, and it provides a different way of framing it. To that extent, yes. But they're not part, any longer, of the art world that's in New York for the Armory Show, or the headquarters of the art world in Basel.

FOX: Well, my city runs a...

MALE VOICE: Except for Bill.

BILL FOX: Yes, at least for Bill. My name's Bill Fox. I run the Center for Art + Environment at the Nevada Museum of Art. I collect the archives of the Center for Land Use Interpretation. We went to a residency program and we do stuff with Geoff Manaugh. Geoff said that the Landscape Futures show is coming up. We'll collect that archive, and other things, too. Jeff Kelly and I worked together for 30 years. It's the whole notion of the expanded field, of what art is and can be. I can't tell the story of what Art + Environment has done in the latter half of the 20th century unless I collect how early Michael Heizer, early Walter De Maria, CLUI, Geoff Manaugh, Lita Albuquerque working in the Antarctic... I can't tell that story without those materials. That's another kind of currency. Small in terms of monetary value, although in terms of our institution, we're certainly raising a lot of money off of that story.

MALE VOICE: A new kind of story that art museums can tell.

FOX: Yes, I think so.

COOLIDGE: If they're art and environment museums.

SCHWARTZENBERG: Yes, if they care about you, right?

FEMALE VOICE: One of the wonderful things about all your presentations, and I loved them dearly, although I missed the first one, is the relationship of the arts, and their interdisciplinary quality, and what normal humans do in their daily lives. I think that's critical, and I think that's one of the things that are so important as we look at this art/science dialogue. Also, important issues such as climate change and sustainability. We can reframe issues like that and look at what it means to take away blame and shift to responsibility, and look at what is the human action.

I think that one of the things that's so critical is looking. What can we as a community of people do? I'm thinking of Boulder, Colorado, where I'm based. There's a big hue and cry about shutting down our local coal-fired power plant. It's a really important thing. But meanwhile, nobody said, "Let's all stop driving." I think that a similar relationship exists here. How can we see ourselves and whatever the art/science manifestations are that might come out of this very exciting conference, and how can we then flip past what I think we're all feeling, which is a deep, quiet oppression that comes from thinking, "We can't really talk about climate change" or whatever issue it may be, because of funders, because of politics, because of all these other things.

Meanwhile, in the social sciences, in disaster-control research, there's something called the normalcy bias. Do you guys know about this? It's a term that people who are dealing with disasters have coined. If something is so huge that human beings can't wrap their brains around it, and if it's far away from what they consider to be normal, it is discounted. An example is Nazi Germany where 40% of the Jews left before it got really bad, but 60%—the most educated and the most well-off—stayed because they couldn't imagine...

I always feel like a bag lady doing what I do, but a hundred species are going extinct every day. Meanwhile, we can't think about how to talk about climate change. This is how artists could be involved. *Uncle Tom's Cabin* was called "the little book that started the Civil War" by Lincoln. It didn't start the Civil War, but what it did do was build on the work of everybody else, and it captured the imagination of the American public. It was the most published book, other than the Bible, at the time it came out. It was made into plays. And it helped people understand the complexities of slavery, and ignited discussions that enabled people to talk about

a third thing, rather than yelling at each other. They could talk about this novel or this play or whatever it was, and get the discussion going and help envision a place without slavery.

BARTELS: I want to be careful with our language. We should be precise. I should be more precise. There's no fear whatsoever about the political part. There are many instances of our institutions not being afraid of politics. It's not that. There's a more insidious danger in the way that we think of ourselves in these disciplines, in these contexts, that if we're not careful, we're...

My work comes out of the education world. I started with standards. It turns out that standards make much better weapons than tools. When we were building standards nationally, they were meant to be tools to help everybody come together and decide what's important for students to learn. Now it's the one thing in my life that I'm probably going to regret more than anything else, because I have seen it ruin everything that I love about the institution of school. I don't want us to make, in any of these big serious issues, the same mistake.

I'm not arguing that we shouldn't be political, or that we should be afraid of politics. I can tell you truthfully and honestly, I am not afraid of our funders, or donors, or our board, or anybody else, and we all have different opinions, but it's more complicated than that. That's why I am pushing on the process and finding better ways to communicate more truthfully about issues of complexity, rather than resorting to simple slogans.

FEMALE VOICE: No slogans. I hear what you're saying. There's lots [inaudible]... but it's helping to understand the web that we're all in and how what we each do has an effect...

WOO: One of the reasons why—just to do a momentary fan boy appreciation of Matt—I feel that Matt is an intellectual Wilt Chamberlain... He's got kids everywhere that he doesn't know about. One of the things that I think is so exciting about CLUI is that if we had somebody in the room right now who was the inheritor of the Michael Heizerian legacy, and they said that they were going to build a system of earth forms all over California, which would be covered with incredibly complex opticals, sort of sighting objects, and they were going to create this...it would cost multi-multi-multi-hundreds of millions of dollars and it would be the most ambitious art project in the world. You know, in art terms, it would be like, "Oh my God, this person's exciting. We should put him in *Artforum*." But the thing is that that's being done right now, and it's being done by Caltrans.

What I like about what Matt does is that he finds things that are incredibly ambitious, they're intellectually complex, they're culturally transformative, and they're

happening right now. It's precisely not happening in the art world. In some ways, I think it's interesting that we're in the Bechtel Room right now having this conversation.

We're talking about the art world, but my background, for good or for bad, is more in architecture. One of the groups that I'm a fan of is Archigram from the 1960s. The funny thing about Archigram is that all of the avant-garde projects that they announced from 1967 to 1972 or 1973—and this is overstating the case—were implemented, but they were implemented by the U.S. military. And that seems to be this weird blind spot within architecture, which they don't want to talk about, because the minute the military does it, it's suddenly, "We can't talk about that. It's immoral, and it has nothing to do with architecture."

But these projects are being built. If we got together and we talked about getting helicopters and building an instant city in the middle of nowhere, we'd fly in geodesic domes, and it would be this, that, and the other thing. In the 1960s context, that's a kind of Archigramian rave. But that's what the military does all the time. I'm not saying that as a flag-waver for the U.S. military, but I think it's interesting that there are people instituting incredibly ambitious cultural programs, but they're doing it with radically different funding lines. They're doing it in different contexts.

Like that Volvo thing that you showed. If Michael Heizer had built that, it would be the art object of the 21st century. But Volvo did it, so nobody talks about it except Matt. That's interesting. I want to get away from the art world and show that there are people who work for Bechtel, or they work for Weyerhaeuser, or they do things that don't give them the intellectual appreciation that they deserve, and it's because of moral issues. I'm willing to raise the flag of morality and say that we need to carefully consider how we ethically give people rewards for what they've done. It's interesting that on a material, technical, geotechnical, and terrestrial level, they're instituting projects. That's fascinating.

Duchamp 100 years ago said that art is in the eye of the beholder, not in the object being looked at.

COOLIDGE: Yes, and Duchamp 100 years ago said that art is in the eye of the beholder, not in the object being looked at.

WOO: Imagine the Panama Canal next to Michael Heizer's double negative, putting two random things together. It's an interesting juxtaposition for whoever is ambitious enough to make projects happen. Is it the art world or is it Texaco?

COOLIDGE: Yes, and art's just a point of view, one of many. But it's one that brings a lot of cultural insight into the act of looking. That's what we're trying to do.

LERNER: What's going to happen, though, is that Texaco will start calling things art. That's what is happening. You have chefs now who call themselves artists, and distillers who call themselves artists, and somebody who was a nail technician before is now a nail artist. Massage therapists say that they do art, and business people talk about curating situations.

I think that art has value, and therefore, in an economic system, when people realize, "Oh, you call that art?" you can extract value from it. There's another table in a parallel universe to yours that's probably at the other side of this building somewhere, where there's a bunch of business people talking about how they can define what they do more as art, because what they're really doing is art.

COOLIDGE: Well, there's good art and bad art, isn't there? There will always be.

SCHWARTZENBERG: Not all things monumental are good.

LERNER: It's not to say that we should shy away, create a barricade, and say, "This is our world. Let it all go." We need to be cautious about what elements of that platform we value, and what elements of it we don't find useful.

COOLIDGE: Thomas Kinkade can be in shopping malls, and other people can be on museum walls. I think that if we look at everything as art, we're still going to make judgment calls, and some things will be relegated to commerce, and others will be up on pedestals behind Doric columns. It's just the way it is.

MANAUGH: There's also talk about the aestheticization of politics and the politicization of aesthetics as a parallel, besides saying there's good art or bad art. Talking about aestheticizing massive land forms is different than talking about the political value of creating an image that changes people's perception of the world. At some point, art becomes pretty obscure in terms of, "What is this object doing in the world? What kind of work does it do?"

COOLIDGE: The endgame is that everything is art if you choose to look at it from that point of view. Yes, the Texacos do make artworks, whether they know it or not. It's up to us as cultural programmers to frame the things that we want to look at and talk about from that point of view.

MANAUGH: But it's bad for reasons other than that it's bad art, right? Or are there different kinds of badness.

MALE VOICE: Let's just say it's corporate art.

GROVER: We have four minutes left. Maybe one more question and then we'll wrap it up.

FEMALE VOICE: It's time.

GROVER: It's time. Oh, okay.

COOLIDGE: All right. Well, thanks, everybody. That was fun.