
VOLUME
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THE STUDENT PUBLICATION
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VOLUME THIRTY-SIX
FICTION
NC STATE UNIVERSITY
COLLEGE OF HUMANITIES

NC STATE UNIVERSITY
College of Design

Form+Fiction

The role of design and designers in shaping, framing, and reflecting reality.

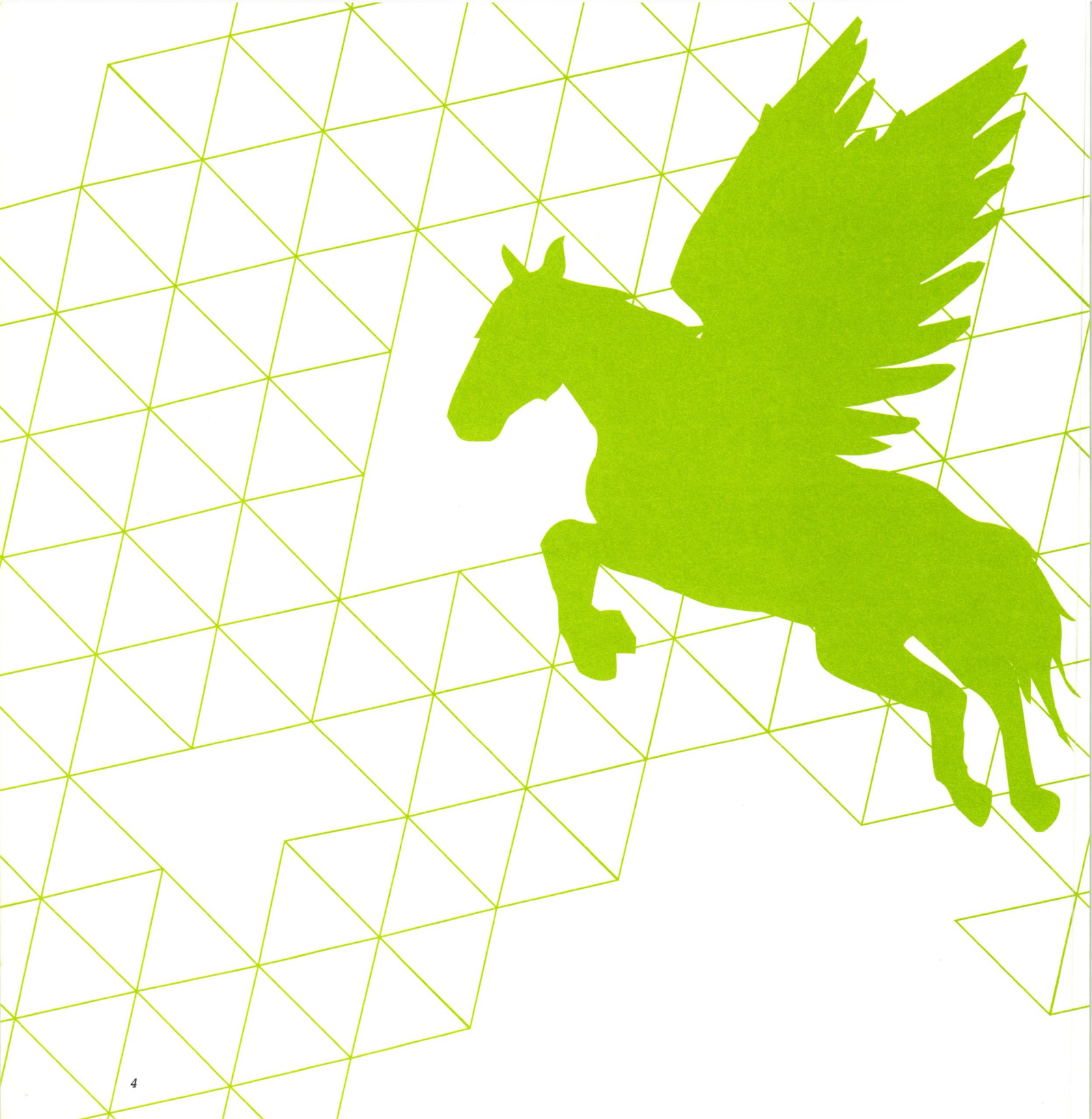
This year's theme, Form + Fiction, *seeks to engage design students and professionals in a dialogue on the role of the designer in shaping, framing and reflecting reality. In developing this theme, it was apparent that this was not a conversation that would have a single answer. Nor was it a conversation that was new to this moment in time. To that end, the editors and students engaged in the curation and design of* The Publication *sought to illuminate the nature of this ongoing dialogue by organizing the submissions (including some from previous volumes of* The Publication*) according to past* (Looking Back)*, present* (In the Now) *and future* (Facing Forward)*. These sections are not so much about the time period in which the article originated, but what it is responding to on the intersection of design and reality.*

Historical articles were reprinted from past editions intact. Due to the nature of the production process in which older submissions were created, in some cases it was necessary to recreate them. All attempts were made to keep articles identical to the original submission.

Looking Back

In the Now

Facing Forward



Form + Fiction = Experience

Foreword by Dean Marvin Malecha

Perhaps every time is a period of transformation and the real challenge is to understand its nature. At the turn of the nineteenth and twentieth centuries the speed of movement introduced by the ubiquitous penetration of the automobile into American life changed the concepts of time and place of the average citizen. The remainder of the century followed this concept with more and more sophisticated conceptions of speed from air travel and space exploration to the beginnings of information transfer. Truly we have witnessed that speed feeds upon itself. It is the goal of every generation to increase the pace of change fostered by predecessors. It is the speed of the transformation we are experiencing that is dramatically affecting our understanding of the design professions. Roles and boundaries of specific disciplines are dissolving. The designer today must expect to move freely across many geographic and cultural barriers while also remaining open to being themselves transformed.

Designers are exploring the cognitive opportunities offered by the new information technologies. It is this exploration that places the design professions in a position to act as interpreters of the experiences that constitute a new era.

Changes of this magnitude have in past times been absorbed into the life of cultures through storytelling. The fictions of the storytellers, from ancient mythology to the ballad singers of the North Carolina mountains and the science fiction writers of the past century, have helped anticipate and even precipitate change. The stories of time machines, radio watches and space travel have inspired the inventions now taken for granted. The storytelling of the past is reflected in the cognitive exploration underway today, facilitated by new forms of technology that are extending human capabilities as never before. An inherent part of the design process is that of deep reflection: on what is and what might be. This time of reflection is a period when stories become an effective means to consider the changing realities of twenty-first century culture. These new fictions are most likely to be to be manifested in media and gaming explorations. Fictional places and human contact are replaced in the cyber world by fantastic representations and avatars. What is real is blurred even further by the interactive character of the games bringing players together in real time from every corner of the earth. This has the effect of transforming interactive media into mature experiences. This is the equivalent effect during the 1930s of children's storybooks transformed by Walt Disney into animated movies. Because of the maturation of interactive media strategies the designer's sense of a discipline focused on specialization gives way to the evolution of a new design discipline, Experience Design.

The evolution of the design disciplines toward Experience Design changes how design thought is conceived. The preoccupation with traditional notions of form and function are transcended by the desire to connect utility and storytelling into scenarios of life. Design thinking then is not so much about an elegant process as it is a journey into deep understanding. The search for deep understanding connects every generation to every other no matter the speed of the inquiry or the tools that facilitate it. *Form + Fiction* equals Experience. Experience is the holy grail of design thought. ▪

Marvin J. Malecha, FAIA, DPACSA
Dean, North Carolina State University College of Design

framing

Altering perspectives of reality based on the context presented.

design thinking

Methods and processes for investigating ill-defined problems, acquiring information, analyzing knowledge, and posing solutions.

design fiction

Speculative form of design used to approach complex design problems.

historical

Excerpts from past editions of *The Student Publication* that were relevant to the theme.

NCSU

Articles dealing with content specific to North Carolina State University.

shaping

The process whereby designers create pieces of reality.

storytelling

A method of framing design, generally for an audience with a story arc envisioned, that encompasses a beginning, middle, and end.

reflecting

How designers portray their conceived reality to others.

Several themes repeatedly arise in the content of this year's Student Publication *that serve to strengthen the dialogue around the conversation on* Form + Fiction. *As a way of calling out these themes, a tagging system was developed that serves as both a navigational tool for the publication and a means of strengthening and highlighting the connections between submissions. This system is comprised of eight terms that are each explained on the left.*

Letter From the Editors:

A Conversation on the Theme of Form + Fiction

Michael Southard: Anna, what are some of your motivations and aspirations for *The Publication*?

Anna Bailer: Volume 36 of *The Student Publication* has a unique point of view because it is the first time a class has been devoted to developing the publication for an entire year. As an editor, I wanted to spend this time creating as interesting a publication as possible. *TSP* has a legacy in the College of Design, but if you ask students, they don't know what *The Publication* is or how to get involved. My goal this year is to change that; to revitalize the first university publication curated solely by students. In order to get students excited about Volume 36, we attempted to come up with a theme that was provocative and relevant to both students and professionals, while also celebrating the College of Design and North Carolina State University. I believe that *Form + Fiction* fulfills all of those goals through its discussion on the evolving role of the individual and designer within society.

AB: Michael, how did you become involved with *The Publication* and why was the theme of Volume 36 important to you?

MS: I was asked to be an editor of *The Publication* as an outsider to the class. For me, it was really important to try to develop a theme that would set the stage for future publications. Since *TSP* is the academic publication for the College of Design, I thought it vital to situate the designer in the publication. *Form + Fiction*: The role of design and designers in shaping, framing and reflecting reality does this. The theme is important because it subtly and implicitly addresses where design is going. At the end of the 20th century, there was a transition from a positivist approach to design—where truth is absolute and designers reveal it—to the acknowledgment that there are many interpretations of reality. Through the theme *Form + Fiction*, we pick up on this shift to continue the conversation about the role(s) of designers today and into the future.

MS: What were some of the processes that went into the development of *The Publication* within the class setting?

AB: After many, many class discussions on the future of our world, our team shifted the thought to who the designer was in the past, who they are right now, and who they are becoming. With technological abilities steadily increasing, our society is shifting, and designers need to keep up. The designer's role is changing to that of someone who dreams of a fictional reality and makes it happen, which influences what the user sees as their own version of reality. We found this thought intriguing and wanted to find out what people had to say about it, leading to *Form + Fiction*.

AB: Michael, why is *The Publication* important to you?

MS: You can always tell when people are engaged in what they are doing. It emanates in such a way that it gets you excited, enticing you join in and contribute. This excitement can then grow, instigating new and experimental ways of working together. As momentum continues to build, it becomes possible to envision a new tomorrow. *The Student Publication* has the potential to take up this mantle, actively participating within its community. This role has the ability to activate students, professors, and any others who would like to participate, in such a way that our intentions become plain, our assumptions are exposed, and we open ourselves up to the transparency needed to build new understandings in the 21st century. It is my hope as an editor of Volume 36 that *The Publication* not only pushes the limits of our knowledge and explores timely topics, but also reaches out to grab you [the reader] to imbue a sense of possibility. It is an invitation to participate and to be heard. ▪

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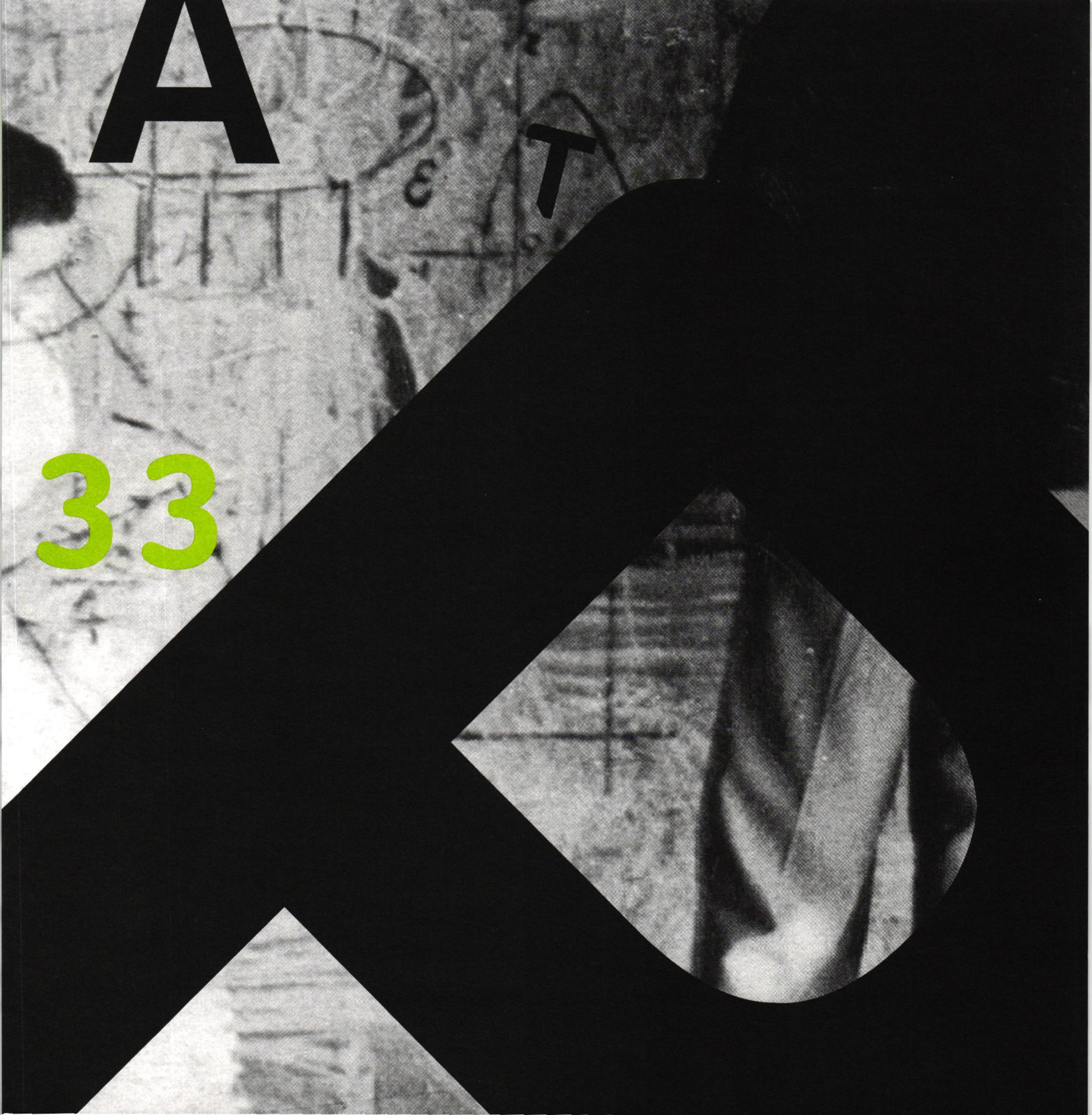
Looking Back

The notion of the designer as a constructor of a future reality has existed throughout history, but the ever-increasing complexity of our world begs for renewed vigor in its evaluation. Looking Back *highlights designers who are conversing with the past and speculating on the future, creating new realities through different scopes and mediums. From Marc Russo's illustrated essay exploring the process of storytelling and the illusion of life created through stories, to Roger Manley's curation of the* Art Without Artists *exhibit,* Looking Back *explores a variety of insights into how designers explore the past as they seek to shape the future.*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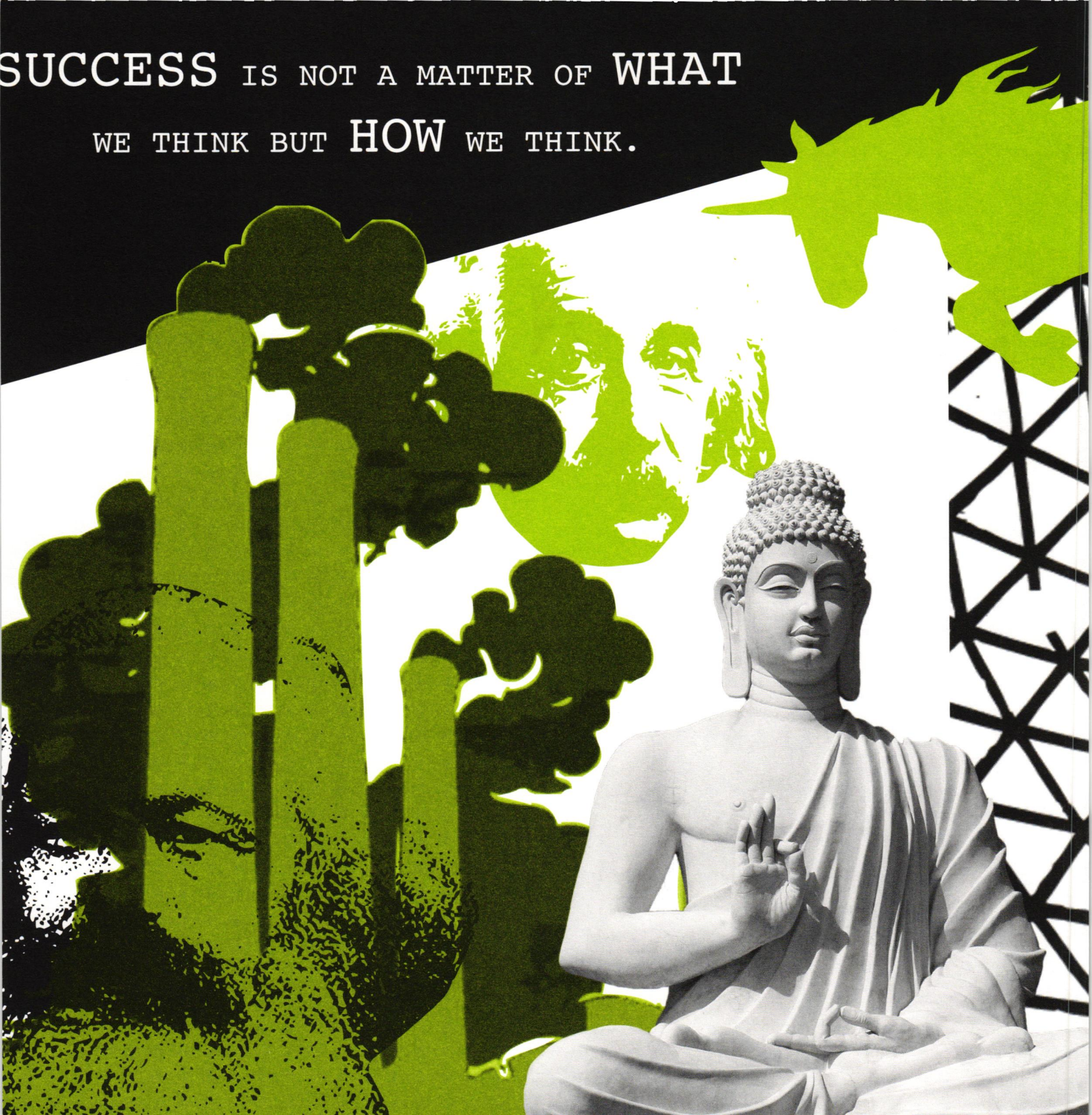

SUCCESS IS NOT A MATTER OF WHAT
WE THINK BUT HOW WE THINK.

The House the Rabbi Built

august turak

August Turak is a contributor to Forbes.com, covering the complexities of good and bad leadership in today's business world. Turak also travels the world giving lectures and providing business consultation.

FURTHER READING:

Low, Albert. *The Iron Cow of Zen.* Vermont: Tuttle Publishing, 1990

Turak, August. *Business Secrets of the Trappist Monks: One CEO's Quest for Meaning and Authenticity (coming out in June 2013).* New York: Columbia Business School Publishing, 2013.

A Rabbi, fabled for his wisdom, was approached by a young man eager to become his student. The Rabbi repeatedly rejected the young man, dismissively suggesting that he return when he was older and wiser. But the young man insisted that he had mastered logic and all the branches of worldly knowledge, and was therefore worthy of the wisdom of the Divine. Relenting, the Rabbi said that if the young man could unravel a riddle he would accept him as a student.

"Two men slide down the chimney of a peasant's hut together. When they get to the bottom, one's face is covered with soot while the other is clean. Who goes to wash?"

"Obviously the face covered with soot," the young man said.

"Don't be ridiculous!" The Rabbi retorted. "The one covered in soot sees a clean face while the other, peering into a dirty face, assumes his face must be sooty as well. The clean face is washed."

The Rabbi turned to leave, but the young man pleaded for another chance until the Rabbi finally agreed.

"Two men slide down a chimney together. One face is covered with soot while the other is clean. Who washes?"

"The one with a clean face."

"How can you be so slow witted?" shouted the Rabbi. "The man covered in soot can see it on his hands, smell it in his nose, and taste it on his lips. Of course he goes to wash."

Again the Rabbi turned, again the young man pleaded, and the Rabbi recounted the exact same riddle one last time.

"They both wash," the young man cried triumphantly.

"Your taste for stupidity is bottomless," said the Rabbi, sadly shaking his head. "Where is the chimney perched on a peasant's hut large enough to accommodate two grown men? On the face of it, the whole problem is clearly non-existent. It is that face as well as your own that must be cleaned."

And with that he walked away.

On the face of it, the whole problem is clearly non-existent. It is that face as well as your own that must be cleaned. And with that he walked away.

Such paradoxical stories permeate the mystical literature of all the great religious traditions, from the enigmatic koans of Zen to Plato's dialogue the *Parmenides*, and the first time I read one back in college I was hooked. On one level they don't make sense, but on another they make so much sense that my head hurts. They suggest an infuriating insight into thinking itself: an insight that is just as profound as it is confounding.

My own "Rabbi," Louis R. Mobley, the founder of IBM's fabled executive school, insisted that successful leaders don't know different things. They think in utterly different ways. All thinking is not alike. All the skills and knowledge in the world will not make a successful entrepreneur of a man who thinks the future is perpetually half empty.

Very few of us stop to consider that thinking itself has been through a long evolutionary process. As the Rabbi points out, there are actually four kinds of thinking, and every great designer must master all four.

I: Magical Thinking

Magical thinking reigned supreme before the dawn of science, and is usually associated with a superstitious reliance on the stars, luck, grace, signs, coincidence, karma, omens, destiny, or God's will.

But magical thinking is more than superstition. Creativity and innovation rely on the magical ability to envision an alternate reality not yet born. Movies depend on the magic of our "willing suspension of disbelief" as we cry real tears at some fictitious sorrow superimposed on a big blank screen. Empathy, compassion, and love would be impossible if we could not magically place ourselves in another's shoes. Art produces something called beauty that is much more than a mass of pigments on a canvas.

And where would science be without its magical thought experiments like Einstein imagining himself riding on a light beam, taking in the view? When the Rabbi reminds the young man that his riddle relies on an impossible premise he is warning against an over-reliance on magical thinking.

II: Modern Thinking

Modern thinking is the enlightenment thinking that ended the Dark Ages and ushered in Newtonian science. Modern thinking thinks that the truth is objective and knowable. Modern thinkers look at the world through the lens of either/or, right/wrong, good/bad. They live in a billiard ball universe governed by cause and effect, and its true believers think that the "important" things in life are matters of principle, not of taste.

Modern thinking is macro, top-down, and outside-in. In politics, modern thinking assumes that if we want to change people we must first change the environment. Every attempt at macro "social engineering" is an example of modern thinking. It lies at the heart of Karl Marx's famous dictum that "being determines consciousness" (i.e. economics determines individual psychology) as well as the stimulus/response deterministic psychology of B.F. Skinner and Pavlov's dog. Modern thinking is the masculine principle of left brain Aristotelian logic, where A and ~A are always and everywhere mutually exclusive.

When the young man jumps to the conclusion that either the sooty face or the clean face will exclusively be washed he is betraying an overreliance on modern thinking.

III: Postmodern

Postmodern thinking insists that truth is "relative," and owes its genesis to Einstein's Theory of Relativity. If modern thinking emphasizes either/or objectivity, postmodern thinking argues

for the both/and of subjectivity. Modern thinking looks for the objective exclusivity of A and ~A, while postmodern values the inclusiveness of "diversity."

Postmodern thinking privileges opinion over principle and in extreme cases may question the very existence of things like "truth" and "facts." Hamlet's remark that "there is nothing either good or bad, but thinking makes it so" is a prototypical example of postmodern thinking. When modernity insists that important things are matters of principle, postmodernity replies that the most important principle of all, truth, is merely a matter of opinion.

Postmodern business thinking emphasizes culture rather than impersonal, bureaucratic, and scientifically inspired management systems. We see it in the transition away from rules and policies toward a reliance on the bottom-up, inside-out, unifying power of mission and purpose. Postmodern thinking values people, customers, and corporate responsibility over the impersonal metrics of the bottom line.

When the young man thinks that by having both the clean man and the sooty man wash he will finally satisfy the Rabbi, he is thinking in a postmodern way.

IV: Paradoxical Thinking

The fourth type of thinking is the ancient yet emergent paradoxical thinking. Paradoxical thinking is found in ancient philosophical and religious texts like *Zen Buddhism* or Plato's *Parmenides*. T.S. Eliot's famous poem *Four Quartets* echoes the Christian mystic, St. John of the Cross, with lines like these:

> *In order to arrive at what you do not know*
> *You must go by a way which is the way of ignorance.*
> *In order to possess what you do not possess*
> *You must go by the way of dispossession.*
> *In order to arrive at what you are not*
> *You must go through the way in which you are not.*
> *And what you do not know is the only thing you know*
> *And what you own is what you do not own*
> *And where you are is where you are not.*

Dismissed or derided for centuries by the Western scientific tradition, it is ironic that paradoxical thinking is emergent precisely because science has been forced to turn to things like Hawking's Paradox to deal with the apparent contradictory nature of the universe. As the famous scientist Sir Arthur Eddington said, "Not only is the universe stranger than we imagine, it is stranger than we can imagine." Trying to figure out what happened before the Big Bang becomes paradoxical because time itself didn't exist "before" the Big Bang. It's trying to figure out what was going on before there was a before.

Paradoxical thinkers hold apparent contradictions in tension by moving among magical, modern, and postmodern thinking as the situation requires while still being able to act decisively. This means paradoxical thinkers are open-minded and close-minded at the same time. The paradox underlying paradoxical thinking is that its openness is anything but indecisive, passionless, or lacking in principled convictions.

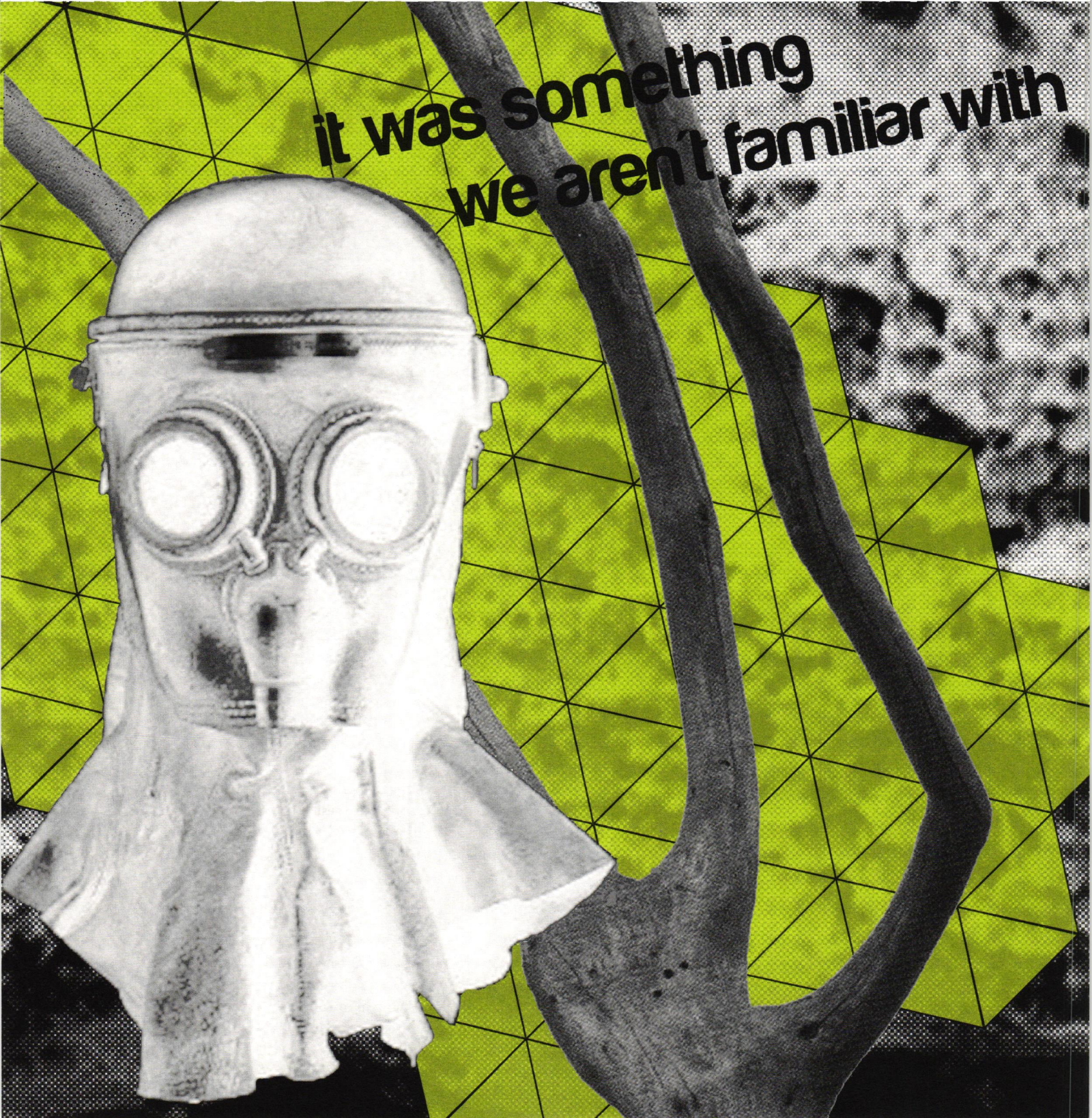
The pervasiveness of paradoxical thinking is exemplified in the happiness paradox, which lies at the heart of successful life. The happiness paradox states that the more we strive to attain happiness, the less happy we become, and the more we focus on something bigger than ourselves, the happier we get.

All four types of thinking are essential. When the Rabbi reminds his would-be student that the man with the clean face will objectively see a dirty face and therefore wash, he is reminding the young man of the importance of modern objective thinking. When he argues that the sooty man will eventually figure it out on his own, he is doing the same for postmodern subjectivity. When he tells the young man that the whole riddle relies on an impossible situation, he is warning him against the danger of magical thinking.

But since riddles and thought experiments rely on imagining impossible realities, by choosing a riddle in the first place, the Rabbi is paradoxically introducing the young man to the value of magical thinking as well.

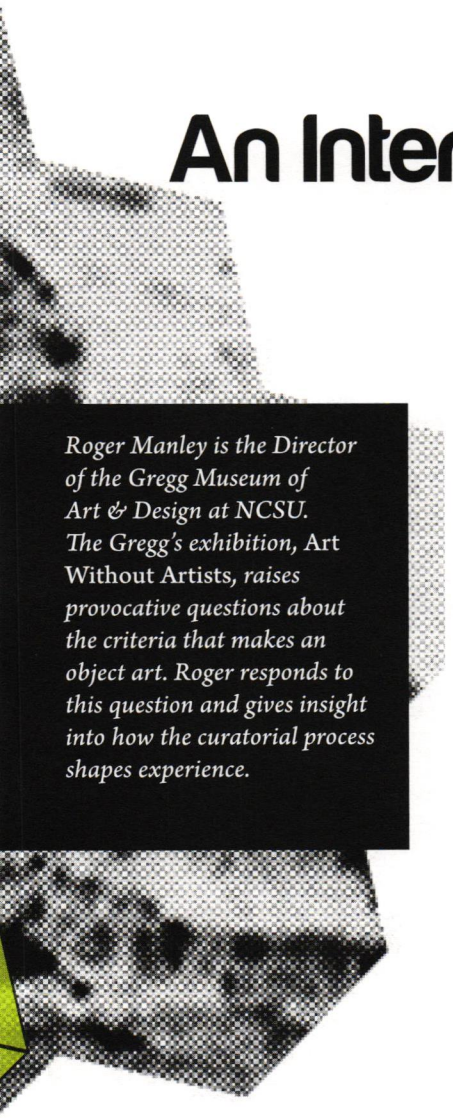
But when he finally admonishes the young man to first clean his own face, he is pointing to the real answer to his riddle and the riddle of life. Paradoxically, the only way the young man can gain the wisdom he seeks is by ridding himself of the selfish motivations that inspired him to arrogantly approach the Rabbi in the first place, loudly proclaiming his qualifications. Humility and a spirit of service is an answer to the Rabbi's riddle that never occurred to the young man. ▪

August Turak's book, Business Secrets of the Trappist Monks: One CEOs Quest for Meaning and Authenticity, *will be coming out in June 2013 from Columbia Business School Publishing.*


it was something
we aren't familiar with

An Interview With Roger Manley

anna bailer



Roger Manley is the Director of the Gregg Museum of Art & Design at NCSU. The Gregg's exhibition, Art Without Artists, *raises provocative questions about the criteria that makes an object art. Roger responds to this question and gives insight into how the curatorial process shapes experience.*

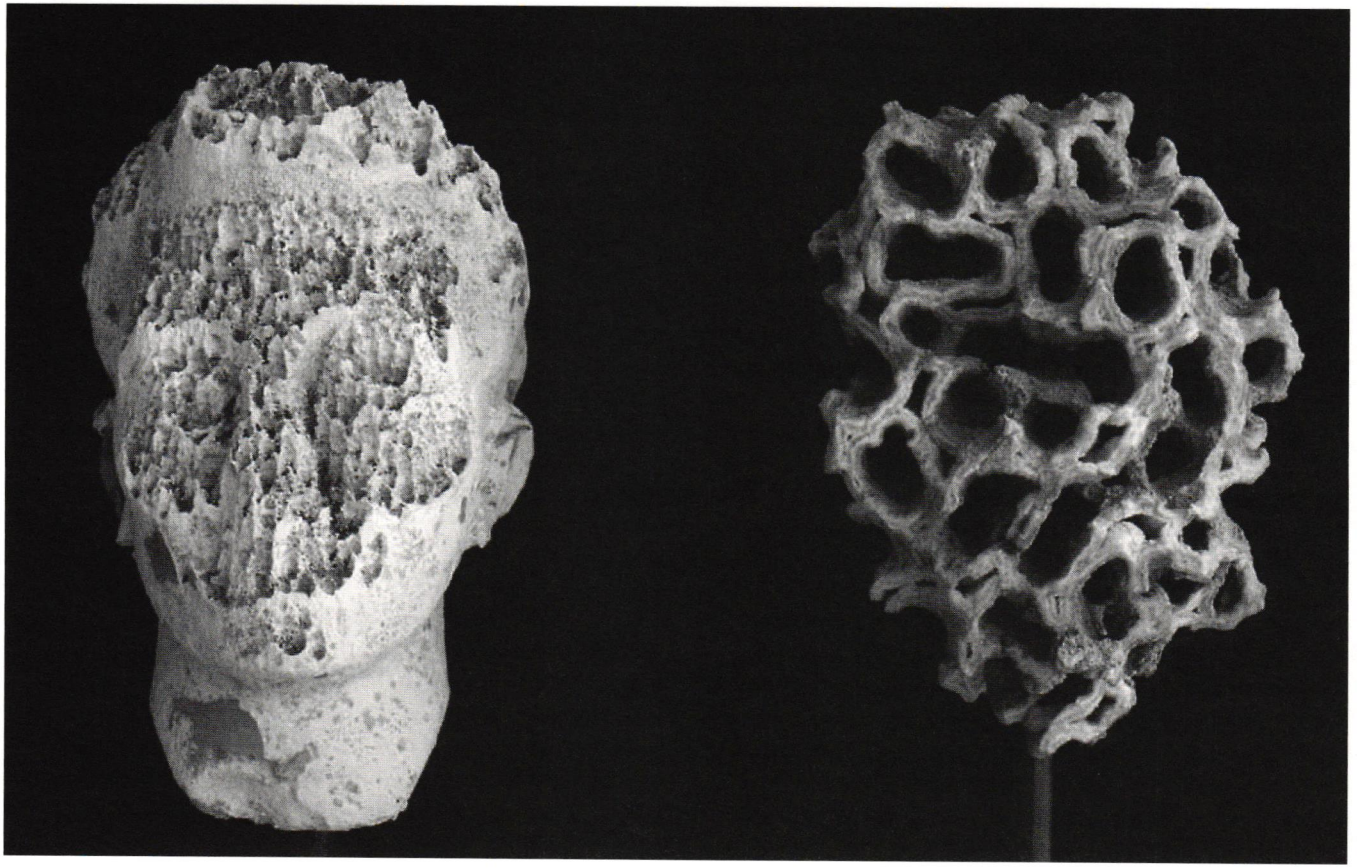
Every art museum must be selective about what it collects, since it's obviously impossible to preserve or display examples of everything. The collecting process inevitably focuses on acquiring objects that are the rarest or most representative, the most beautiful, the most well-made and the most valuable, as far as it is within the means of the institution or its donors to do so. With luck and perseverance, the results can be impressive but also, to many visitors, often a bit daunting. After a few hours spent surrounded by masterpieces and confronted with major achievements, they may go home thinking of art only as something made by geniuses or highly trained masters and only to be admired in a pristine setting under special circumstances.

The Gregg Museum of Art & Design, sited at a land grant university like NC State, offers a good place to question this assumption, since it's no great leap from the land grant idea—that almost everyone can become more useful and better citizens if they are afforded an opportunity to get a higher education—to the concept behind the exhibition *Art Without Artists*: that almost anything can be enjoyed as art, and indeed become art, if given an opportunity to be appreciated as such.

The emphasis on geniuses and masters is already downplayed at museums like the Gregg where, besides the paintings and sculptures, the vast majority of things in its collection—textiles, garments, ceramics, photography, furniture, metal, wood, glass, design objects, self-taught art, and tribal and ethnographic artifacts—are by anonymous or unknown makers. Moreover, most of them were originally slated for uses far removed from being displayed in a gallery. The Gregg's clothing and textiles were by and large meant to be worn, or draped over surfaces; the ceramics were once intended to hold liquids or accompany meals; the furniture was meant to be sat-on or worked-at; most of the tribal objects were made to ensure survival by aiding with food production or invoking the gods.

IMG 01 Anonymous. Plaster Head. *Art without Artists.* John Foster.

IMG 02 Missouri River Rock. *Art without Artists.* John Foster.



Now installed in a new context (a museum), they've already been re-purposed as objects intended to educate, inspire, entertain, and delight anyone who pauses to look at them. This is scarcely different from asking the same thing of the rocks, snapshots, farm implements, industrial artifacts and other objects that guest curator John Foster has gathered for *Art Without Artists*. Ideally, after viewing them the alert and perceptive visitor may discover that the world outside the gallery seems to offer more frequent opportunities to experience art, too.

- *Foreword from the Exhibition Catalog for* Art Without Artists

Interview:

In identifying objects that were appropriate for the show, my main criteria was that things had to be capable of what we call "flipping"—where they could look like something at one moment and look like something else the next. This is what the Chinese were doing with their old rocks and it's also what happens when you look at a model train layout. If a person is engaging with that train layout, they sort of envision it as being real and they sink into it. This is what the Chinese were doing thousands of years ago with their stones. They could see a stone just as a rock or it could look like a fish jumping out of water or flames, or a landscape with caves, and things like that. They crossed boundaries. So that was sort of the main criteria for me.

I think that's what Duchamp was doing with things like this bottle rack. To a French person who's used to seeing these, it's the equivalent of a dish rack—a very ordinary object that every bar in France had where people would rinse out their beer bottles, drain them, and reuse them. But, by putting it on a pedestal, people suddenly realized that they could look at it in a different way. When I was looking at stuff, it had to fit the "rules" or criteria of the show. It couldn't actually be art—or if it were art, it would have to be art like the Abraham Lincoln portrait included in the show. It was sort of factory made art—they made thousands of them for schools all over the country and someone would paint the eyebrows and someone would paint the nostrils. It was an assembly line production, painted very quickly and cracked later—they didn't wait for anything to dry. So any object in the exhibition could not be real art and had to be capable of being seen as an art object, meaning that it was something we aren't familiar with. An example of this is the barbed wire fence post; a lot of people haven't been around farms in Kansas, but by flipping the post over and putting it on a pedestal, it becomes a piece of art.

In picturing each object for the show, I had to consider if it could work as a piece of art if you treated it like one. This was Duchamp's realization with the airplane propeller when he thought, "Wow, that kind of looks like a piece of art."

Is there a piece that is most surprising or interesting to you?

The pigs. It's an example of where you start to notice things and when put in a group, they take on a new meaning. There's a German couple, Bernd and Hilla Becher, who photograph things like water towers and apartment buildings. In their photographs, they're careful to shoot everything in the same way so, for example, you would see a collection of water towers all the same size and start to realize their "water tower-ness"—the essential thing that makes a water tower a water tower. At the same time, you start to realize individual stylistic differences that are really cool. This sort of thing also comes into play with the mug shots.

So the first phase involved collecting all of the objects for the exhibition. The second phase—the hard one—was sequencing it. It was a real brainteaser and where the art of curating came in.

Sometimes I tell students, "If you have ten playing cards and lay them on a table and all you do is put them in different arrangements, there are almost 4 million different ways you can arrange them. When you have this many objects and each object squares the number of things you can do, it's like the number of atoms in the universe of ways to arrange them." And that's just sequencing—it's not even how high off the ground or how far apart they are, it's just their order. So you start to look for systems that you can use to simplify your job, otherwise you'd go nuts. Generally when you do a show like this you go nuts for the first few days. I start off by trying to create groupings of things—things that seem to go together. For example, the mug shot pictures go together and also go with the hats because none of the guys in the mug shots are wearing hats. Also, they contain a similar number of objects. The mug shots are about crimes and the hats call to mind Eliot Ness and gangsters—it looks like evidence of something on somewhat of a subliminal level.

We started by thinking, "What goes with this quilt?" Often you start with the biggest things, just like packing the trunk of a car. You figure out what the "big" things will be (like the tall piano roll or the bulletin boards) so you don't put them all on one wall and then determine where they are going to look the best. Then you think, "What goes with that quilt?" The basket on the left creates a grid pattern and so we thought, "Well okay, that might

IMG 03 Firefighter's Respirator Mask. *Art without Artists.* John Foster.

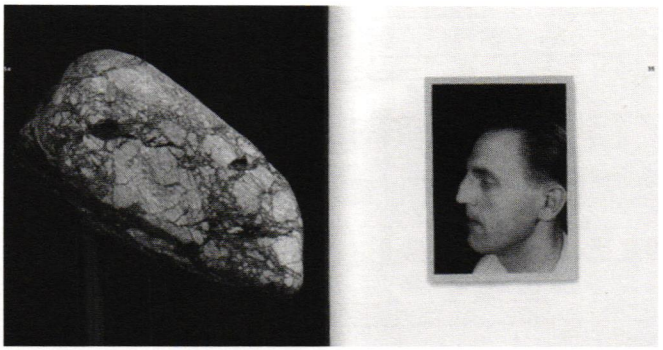
work there," then this game board could go with it as an object. The game board has circles and dots so maybe we could get away with putting this image of a guy looking through a peephole, and a couple of dot-like photographs of an eclipse. So we have this dot thing going, then we have these fingerprints that are sort of like evidence of an eclipse. That led into this idea of a crime. So we have these things, then we have a crash that looks like a piece of evidence. Then there is this mortician's mask for practicing funeral cosmetics—it's very dirty—but it's what undertakers use to perfect their craft. We have all of these snapshots too, so we used the ones that look like a crime. The guys in the snapshots are probably just horsing around, but they look like a crime in progress. There is a photo that looks like someone had a falling out with their family or whose parents got divorced, so they cut them out of the picture. We followed that with a blind guy who had his picture taken in a photo booth. So we have these three things that made it possible to look for something else in a sequence of three (gesturing to the next objects). And they're round, so we thought we could get away with round things, then round things on a vertical, then another thing on a vertical. We have a piano roll with slots in it that made it possible to make "slots" a theme. Slots are here which leads into pokey things and on and on. The whole show is put together with a subliminal structure, and you just play with it. It's as if you had a bag of magazine clippings—how could you collage them?

So everything is related to everything else. You don't want the viewer to notice, and if you do it right, the sequences are not noticeable. If you're doing a good job, your effort disappears. Like when you hear someone playing the violin, you just want to think "Oh, what a beautiful thing!" not "Wow, they must have practiced a long time." Curating is like making a big collage or like tuning an instrument. Suddenly it sounds good. When you get all of the objects in their correct place, it just feels right.

How did you think about the viewer moving through the exhibit?

I split my time between being a filmmaker and being a curator before I became a director. I think about it in terms of a sequence—what do they see first when they walk into the room? What's going to attract them to keep going? Which direction do you want them to go? It's intentional for the big photograph at the rear to draw people toward it, then the wire cross homemade radio antenna goes with the photo which goes with the red cross shaped thing. So you're just trying to move people through in a particular order, even if they don't always do it. In filmmaking, there's a thing called the Kuleshov Effect. Kuleshov was a Russian filmmaker in the 1900s and was one of the early discoverers of film editing. He experimented with how you can take different pieces of film, put them next to each other, and end up with a third meaning. He did an experiment in which he took a minute's worth of footage of an actor just staring into the camera—not doing anything, just looking at the camera. You can see that he's alive, but he's not making any expression. Kuleshov took that footage, cut it in half, and spliced three different things in between. He did this three different times. In the first sequence he had the actor, then he used a plate of food, then he used the actor's face again. He showed this to people and asked them what was happening. They said, "It's amazing how that guy could convey the look of hunger with just his face. You can tell he's anticipating that meal." But they projected that all onto him—his thinking. So the next sequence he took out the food and spliced in a picture of a dead baby. Then he showed it to people and they said, "Oh my god, that guy is overcome with grief, he's stony but he's trying to hold back his tears." So the same thing—they interpreted those feelings for him. In the last sequence, he spliced in a beautiful girl and the viewers interpreted that he was overcome with lust. So Kuleshov discovered and proved that when you put things in

IMG 04 Found Rock Head & Profile. *Art without Artists.* John Foster.



We played with this idea in the show too. For example, that's an old railroad crossing sign from the 1920s. Their lights would swing back and forth, mimicking the crossing guards who would stand by the train tracks and swing their lanterns to cars. So I thought, "Okay, we have that sign swinging, and this guy who looks like he's swinging his leg or something." There's a play there, sort of a game, in that even though they're unrelated objects, they work together. People look at it and think, "cool," but they aren't sure why.

What do you want the viewers to learn or take away?

I think the main thing is just to be charged up. They might walk out of here and start to see other things out in the world as more interesting than they once thought. That's a pretty big accomplishment. If you go out and suddenly see three orange traffic cones and say, "Wow, that sort of looks like art, I never realized how cool they are" or, "It's cool how the chewing gum is stuck on the underside of the bridge." You don't think of it as a weird thing anymore. I feel like if you can do that, it's enough. We all go around in a daze a lot, and we have to—we would go crazy if we tried to notice everything. We couldn't process all of it. Most of what we see we have to tune out because there's just too much information in the world. When you learn a new word, you start to see it everywhere. Or you hear about a new actor and suddenly everyone is talking about them. The fact is that everything is happening all of the time everywhere, we just filter out most of it.

There was an article in the *New Yorker* magazine titled, "To See Or Not To See," about an eye operation they had pioneered that recovered the sight of several blind people who had never seen before. When they were coming up with this operation, everyone was thinking, "This is going to be a great breakthrough, we're really going to do wonderful things for these poor blind people." But once they took the bandages off, many of the people who had the operation had nervous breakdowns. They were flooded with information that they had never learned how to process. When you're a baby, you're lying in a crib and have a limited viewpoint. You're looking straight up and have about four or five things to look at. Over time, as you explore the world, you learn what you need to know and what you don't need to know. So, early on, we learn that Mom's breast is really important, but the doorknob is not. So we tune out the doorknob, until we're about three or four when we stand up and notice the doorknob. But before that, they weren't there. We gradually build up this mental system that allows us to get by, just knowing the stuff that we need to know. But a blind person who is suddenly able to see doesn't look at a lawn of grass and see a big green thing that might be fun to have a picnic on. They see every single blade of grass; everything is a different bit of information. We're here looking at this carpet and see a carpet, and maybe notice that it's made of separate squares, but we aren't noticing every single square. But a blind person suddenly able to see sees it all and it overloads their brain. We go around all of the time walling ourselves off to things we don't know—we have to—but I'm hoping that the show will suggest that there are other things out in the world that you could enjoy, or notice. If you're able to do that, your life gets a little bit better, and that's enough. ▪

ONCE I FIND CHARACTERS I DRAW THEM OVER AND OVER AGAIN.

THIS IS MY WAY OF GETTING TO KNOW THEM.

Finding a Story Through Character

marc russo

Marc Russo is an Assistant Professor of Art + Design at North Carolina State University in the Animation Department and a freelance designer. Through a visual essay, Russo invites readers into his fictional worlds, questioning our fundamental beliefs and inviting us to question them ourselves.

FURTHER READING:

Block, Bruce. *The Visual Story: Creating the Visual Structure of Film, TV, and Digital Media*. Burlington: Fossil Press. 2007. Print.

McKee, Robert. *Story: Substance, Structure, Style and The Principles of Screenwriting*. New York: Reganbooks. 1997. Print.

Story is character, character is story—there is no other way around it. In the best stories we sympathize, recognize, and follow the struggles of the central character. The protagonist is our guide. In this story his name is Saint Francis.

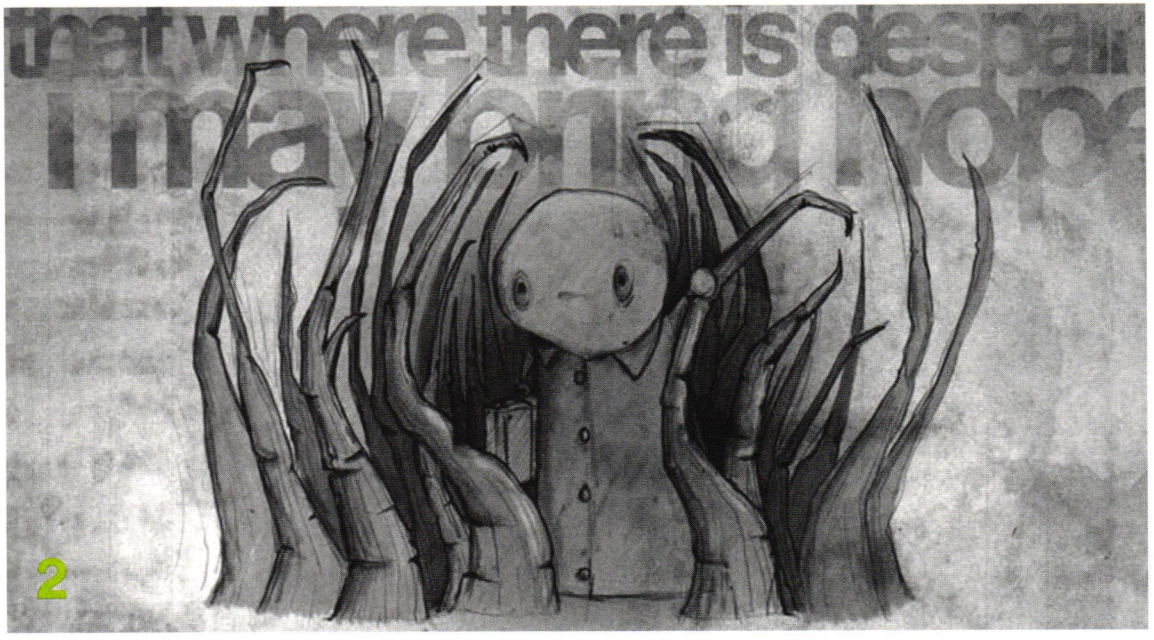
Historically we know St. Francis as a soldier, a beggar, an advocate, a preacher, a leader, and eventually after his death the patron saint of animals and the environment. Countless stories and works of art have been created to commemorate his life. The course of this man's life is like a well-structured story. There is an inciting incident that leads him to reject his life as a soldier. There are increasing rising actions that form his convictions through poverty and service. As a climax, he tries to put an end to the Crusades. And finally a resolution, where we see a man who led a life of meaning on his deathbed surrounded by an order of monks.

The text that is obscured in the background of the sketches comes from a meditation commonly called *The Prayer of Saint Francis*. The structure of a story works for more than just Hollywood movies and great literature. When I read the lines that make up this meditation I can see the inciting action, the increasing tension, the climax, and a tragic resolution. There is no doubt that the message of the meditation makes this a moving and powerful piece. But the message and the structure are inextricably woven together—the power comes from both form and content working together. Find a full version of the text and see if you agree with me. ▪

1 *Most of my work is realized through animation, but first and foremost I think of myself as a storyteller. The story does not need to be kinetic, it can be a series of rough sketches, a single digital painting, or even a photograph.*

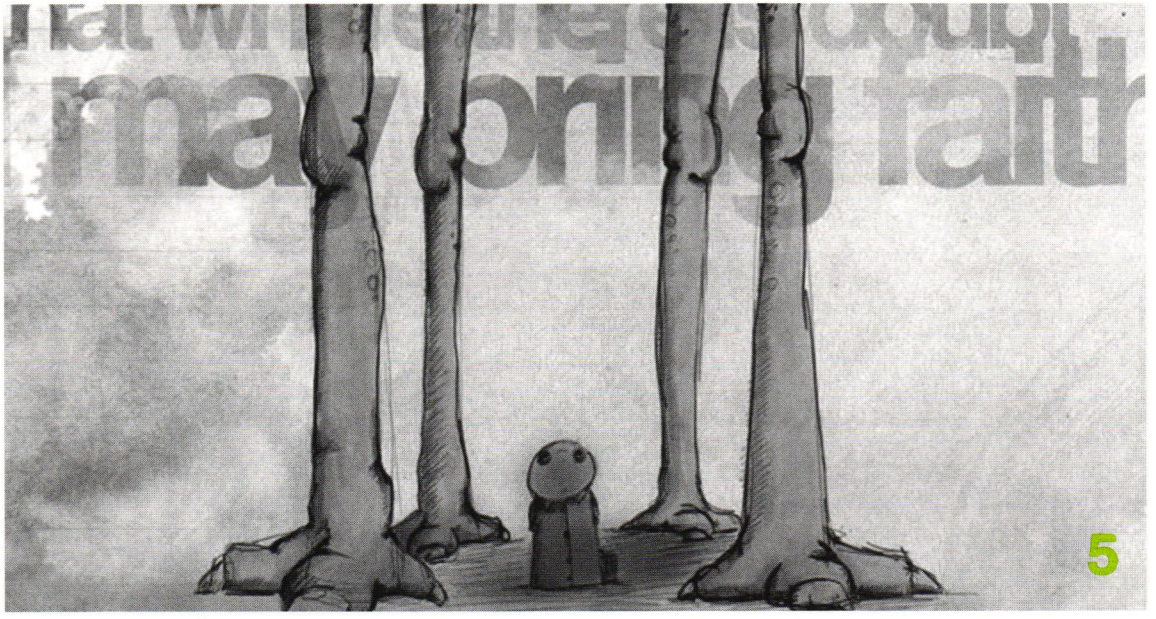
I find stories in a variety of ways. Sometimes I am telling my own story, and other times I am helping someone else tell their story.

Communicating a story is hard work, and finding the best way to tell a story can be tricky business. Sometimes the story starts with an idea that leads to a story arc. Other times I start with a character.



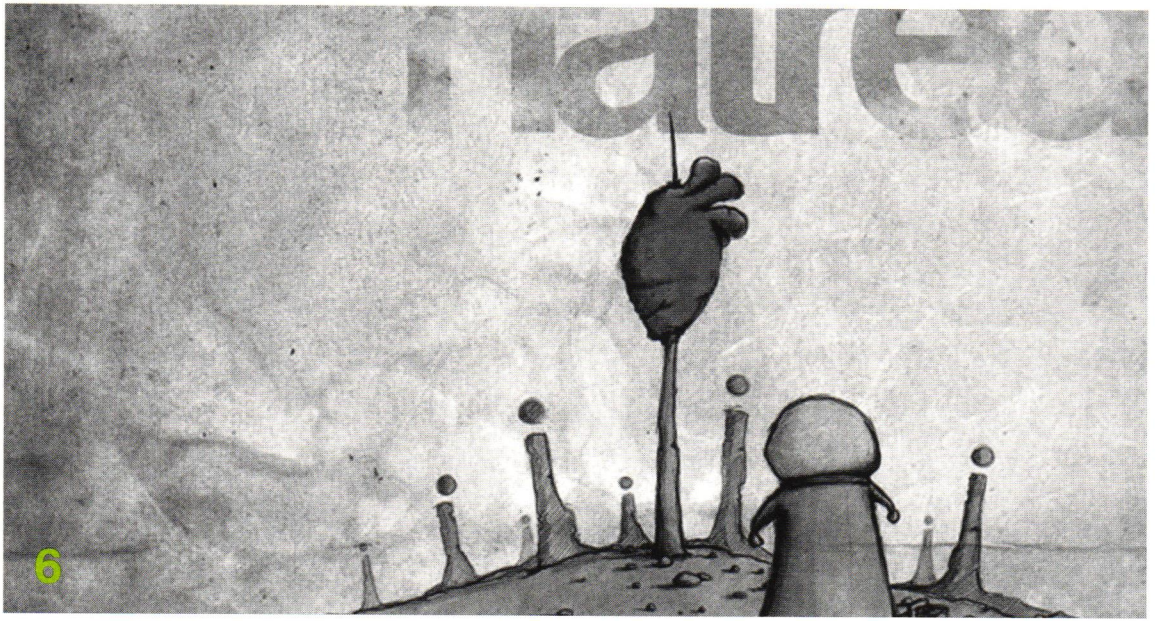
Once I find a character I draw them over and over again—this is my way of getting to know them. Sometimes we become fast friends, and when we do they reveal their story to me. I met this character in a sketchbook of mine earlier this year.

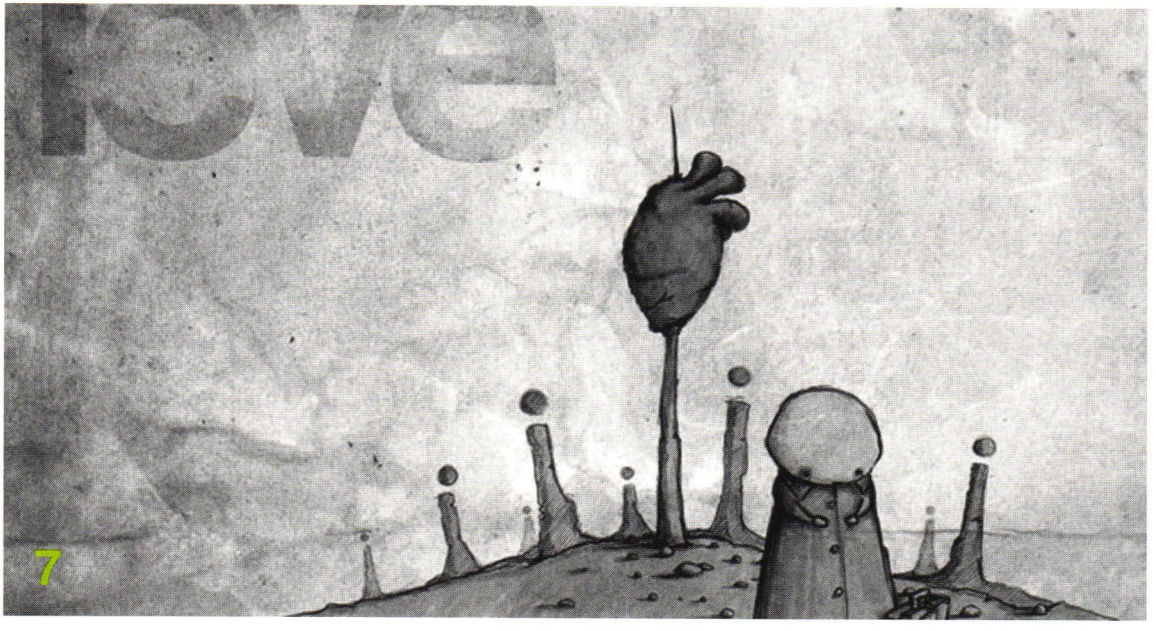
From the first introduction he began to tell me his story. But it was disjointed and I could never get him to start from the beginning or get to the end. Most times it was like he was reading to me random lines from a poem and connecting them to moments in his life.



A story is a series of events that unfold in an unpredictable way. They speak about the universal truth, and they try to teach us something about our lives.

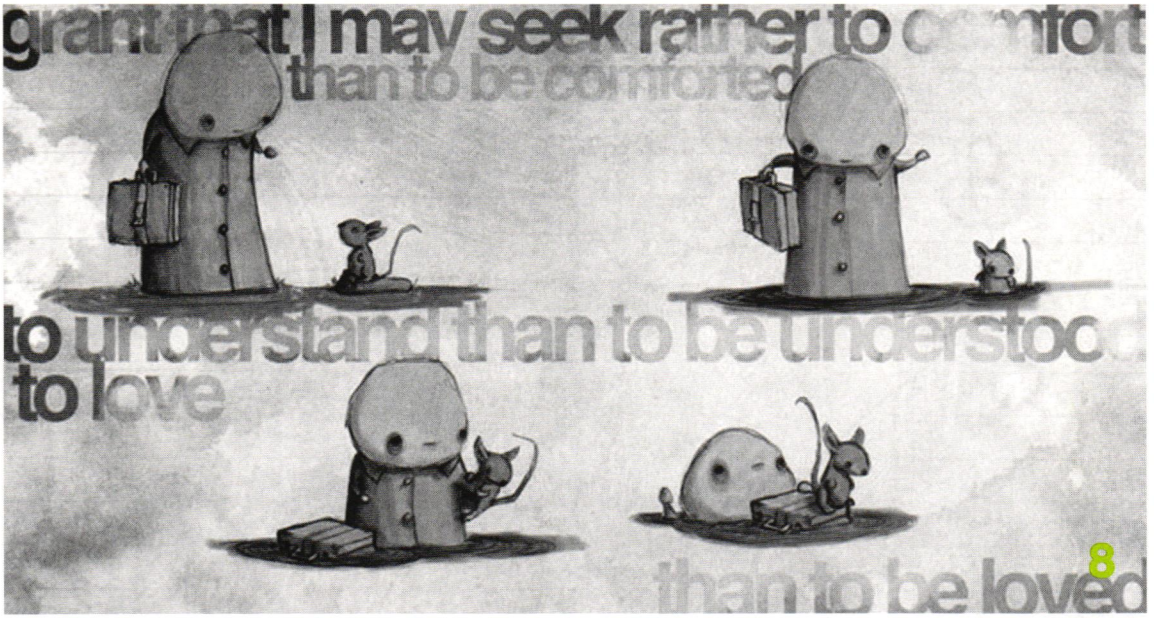
Often times these lessons are not easy to learn, and the hope is that through the story we can learn without having to make all the mistakes ourselves.





8 *St Francis has experienced a lot of pain, and he has made a lot of mistakes.*

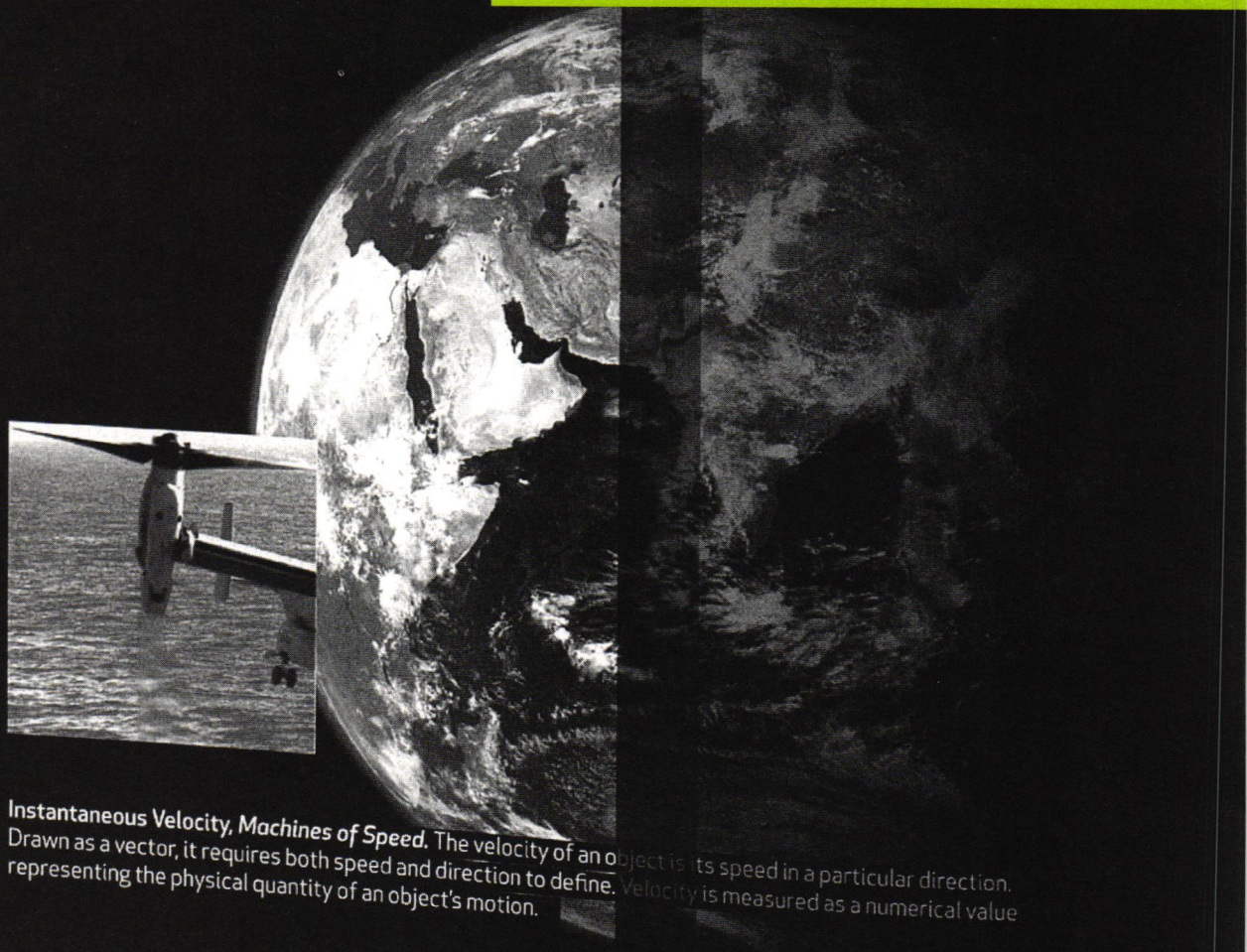
9 *But he has tried to make amends for those mistakes by helping others and retelling his story whenever he can, and to whomever will listen.*



I was listening. And even though it took me a while to hear it, I finally understand that he was trying to teach me about letting go. I was so grateful for this lesson.

Before he left (as wise enigmatic characters unexpectedly often do), St Francis told me that the greatest gift I could give him would be to carry his message forward. Now I need to begin the business of crafting that story from the series of vignettes that you see here. Understanding the intent of the story and the struggle of the main character is just the first step. Each aspect of the story has to add to the larger idea. Each element has to be questioned. Ultimately my goal is to tell St Francis' story and make my audience feel as though they knew him as I did.

Martha Scotford is a Professor of Graphic Design at North Carolina State University's College of Design. Her research and writings in design history, with a special emphasis on women in design and feminist theory, have appeared in American Center for Design Statements, AIGA Journal of Graphic Design, Print Magazine, Design Issues, Visible Language and Eye. *This article first appeared in Volume 32 as an historical introduction to the topic of that issue, New Futurism.*



Instantaneous Velocity, *Machines of Speed*. The velocity of an object is its speed in a particular direction. Drawn as a vector, it requires both speed and direction to define. Velocity is measured as a numerical value representing the physical quantity of an object's motion.

A BRIEF OVERVIEW OF FUTURISM

Martha Scotford

IRONICALLY, WE MUST DO WHAT THE FUTURISTS RAILED AGAINST: *looking at and admiring the past.*

BUT ONLY BRIEFLY IN ORDER TO DO BETTER WHAT THEY DID SUPPORT: *looking forward, celebrating what was newly possible, and creating new forms for new ideas from new materials and methods.*

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Futurism was framed by the "The Founding and Manifesto of Futurism," published on 20 February 1909 on the front page of the Paris newspaper *Le Figaro*. It was written by an Italian, Filippo Marinetti, summarizing ideas of a small group of artists and writers. During the 'heroic' period of Futurism that lasted until 1920, over 50 manifestos were published on all art forms (LITERATURE, CINEMA, ARCHITECTURE, PAINTING, SCULPTURE, MUSIC, THEATER, DANCE, FASHION) as well as politics and entertainments. Marinetti would remain the primary promoter and propagandist, using the mass communication methods of newspapers, magazines, leaflets and flyers to reach thousands in the cultural capitals of Europe.

The activities and productions of the artists associated with Futurism can be divided into several periods. Before the 1909 manifesto, they were aware of the form and color experiments of the Post-Impressionists, the breakthrough of the Cubism, especially Picasso's *Demoiselles d'Avignon* (1906), the photographic studies by the American Eadweard Muybridge and the French Etienne-Jules Marey, the early cinema of Georges Melies and the Lumiere Brothers, and the Symbolist poets and artists like Mallarme and Munch.

The manifesto defined the first authentic *'avant garde,'* a group with a shared ideology going beyond art into politics and daily life.

In this and subsequent writings they declare what they are for, what against, and how to change life. They were painters, sculptors, architects, poets, photographers, musicians, but most of them worked in several areas and dimensions.

From the beginning the Futurists were fascinated by the visual properties and creative possibilities of movement (ESPECIALLY SPEED), by light (ESPECIALLY ARTIFICIAL), by industrial forms (ESPECIALLY CARS, TRAINS AND AEROPLANES), and by the channels of mass communication.

Early paintings of dogs running (BALLA) become speeding cars and later studies of armored trains engaged in battle (SEVERINI). Studies of street lamps become paintings of night scenes (CARRA), landscapes in mist (RUSSOLO), exciting parties and dancers (SEVERINI). Printed materials are the stuff of paintings, words and symbolic sound represented as the new landscape (CARRA). In sculpture, much of the verbal aggression of the manifestos was realized in dynamic

and brutal forms that grab and thrust into the space they inhabit (BOCCIONI). In architecture, visionary drawings show a 'New City' with high-rise buildings including many levels for and modes of transportation (SANT'ELIA), as well as monumental plans for power plants, factories and apartment buildings (CHIATTONE).

Among the poets and other writers, the word pictures, usually collaged or melded into single experiences through typographic manipulation, were examples of concision, synthesis and simultaneity. In the 1913 manifesto "Destruction of Syntax," *in another example of their rejection of the classical past*, Marinetti declared that as current life was accelerated by science and modern conveniences, *Words in Freedom* would use "condensed metaphors."

In addition to words, onomatopoeia and mathematical symbols would provide the sounds and signs of modern living. The Futurists were the first to produce literature to be seen and heard from the page, especially the sounds of war (MARINETTI). Others created more playful compositions where letterforms created architectural spaces and became animated figures (CANGUILLO). The musicians would carry the use of sound away from harmony into 'noise' (RUSSOLO).

As the 19c invention of photography developed as an art form, it also became an instrument of scientific study of movement as well as a moving form itself. Both the science and the art of photography were taken up by the Futurists to create still and moving images of abstract and expressionist forms (BRAGAGLIA).

Their glorification of war in 1909 became a reality five years later. The Futurists were willingly drawn into the 'cleansing' First World War and its new use of tanks and planes. In the war they lost two principals: the architect Antonio Sant'Elia and the artist Umberto Boccioni. The movement's most pure and innovative work was done during the war years and much of it related to that subject. After 1920, the second period was less inventive, more politically engaged, and headed in the 1930s into a more decorative phase. Several began applying the forms to practical objects like furnishings, toys and fashion (BALLA AND DEPERO) and commercial promotions and advertising (DEPERO).

IN THE PRESENT, NECESSARILY SEPARATING OUT THE POLITICS AND IGNORING MANY OF THE SOCIAL VIEWS (MISOGYNISTIC), WE CAN APPRECIATE THE FUTURISTS FOR THEIR SERIOUS AND ALL-EMBRACING RETHINKING OF WHAT IT MEANS TO LIVE IN A WORLD OF SCIENCE AND INDUSTRY.

The futurists would inspire several other contemporaneous avant garde groups. *Dadaists* in the Netherlands and Germany picked up on their breaking of grammatical verbal syntax (as the *Cubists* had done with visual representational syntax) and the use of collage to create their own word pictures and visual poetry of sound, some of it with vastly different political meanings. During the years of the Revolution, *Russian Cubo-Futurists* combined the fragmented forms of multiple viewpoints and words in their paintings, and poets wrote using all available symbols. During the early Soviet period, *Constructivists* returned to geometry and abstract forms and symbols for a purity of vision as well as a search for a universal visual language.

The bombastic *'totality'* of the Futurists' often aggressive views, *combined with on and off associations with Fascism and Mussolini that continued through the 1930s*, tainted the movement and created a certain disdain and distance in the art historical world for several decades. It was not until a critical effort resulting in a huge encompassing 1986 exhibition in Venice, that it was possible to separate their artistic vision from the political and rehabilitate the Futurists for the future.

They were engaged with the primary issues and events of their time. They took on all of Western cultural tradition and said it no longer worked. Through the multiple manifestos they stated (not always clearly or concisely) what they believed, and then they made work that followed these principles.

THEY WERE ACTIVE IN ALL AREAS OF ART AND DESIGN; THEY TOOK SCIENTIFIC KNOWLEDGE AND INVENTION AND THE PRODUCTS OF MODERN, MECHANICAL TECHNOLOGY TO BE THEIR SUBJECTS AND THEIR METHODS.

They worked *across disciplines*, in *all available media*, in *all known dimensions*.

MARTHA SCOTFORD IS A PROFESSOR OF GRAPHIC DESIGN AND DIRECTOR OF INTERNATIONAL PROGRAMS AT NC STATE UNIVERSITY COLLEGE OF DESIGN. HER RESEARCH FOCUSES ON DESIGN HISTORY WITH AN EMPHASIS ON WOMEN IN DESIGN AND FEMINIST THEORY. HER WRITINGS HAVE APPEARED IN *THE AIGA JOURNAL OF GRAPHIC DESIGN*, *PRINT MAGAZINE*, *DESIGN ISSUES*, *VISIBLE LANGUAGE*, AND *EYE*. SHE IS THE AUTHOR OF *CIPE PINELES: A LIFE OF DESIGN*.

THIS ESSAY HAS BEEN INFORMED BY: THE COLLECTED RESEARCH FOUND IN "FUTURISMO & FUTURISMI," THE CATALOGUE FOR AN EXHIBITION ORGANIZED BY PONTUS HULTEN, PALAZZO GRASSI, VENICE, 1986, AND PUBLISHED BY BOMPIANI, MILANO; JOSHUA C. TAYLOR'S "FUTURISM," PUBLISHED BY THE MUSEUM OF MODERN ART, NY, 1961, AND DISTRIBUTED BY DOUBLEDAY & COMPANY, NY; "THE FUTURIST IMAGINATION," EDITED BY ANNE COFFIN HANSON, PUBLISHED BY YALE UNIVERSITY LIBRARY, NEW HAVEN, CT, 1983.

19

They were also seriously playful.

36_

In the Now

As our world becomes more complex and an increasing number of people and entities are engaged with design, the role of the designer is shifting from that of the drawer of a plan to a planner. Through this planning process, designers are altering their own realities and are becoming more aware of their influence in shaping external realities. As designers, a vital conversation is emerging that explores how we can shape reality through our capacity to envision new futures. From Nic Rader's discussion about the design of the James B. Hunt Library to Silas Munro's speculation on the future through imagined personas, In the Now *features designers reflecting on how the work we are doing today shapes and frames the realities of tomorrow.*


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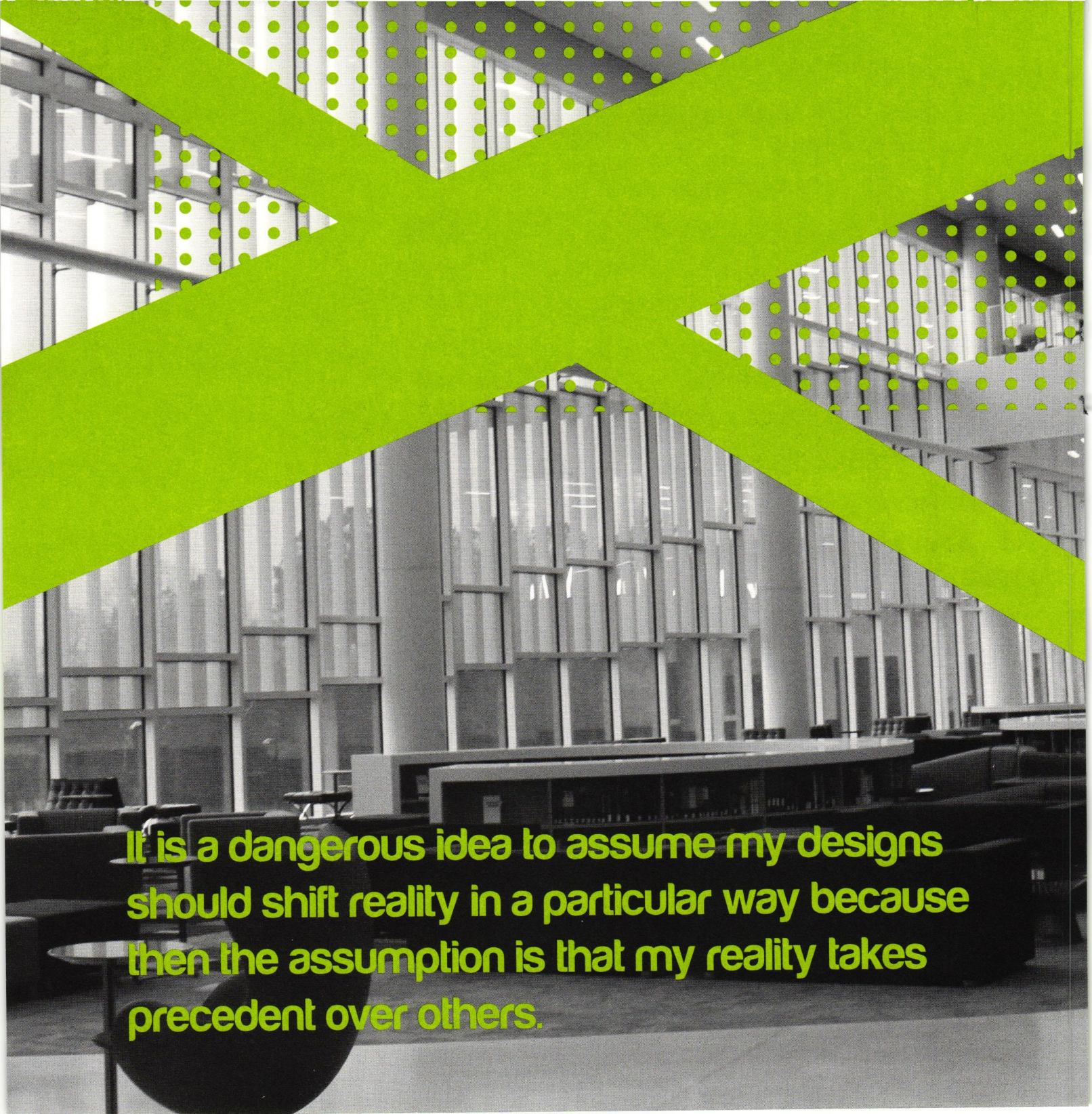
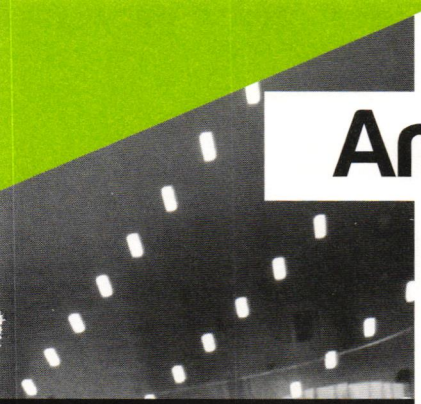
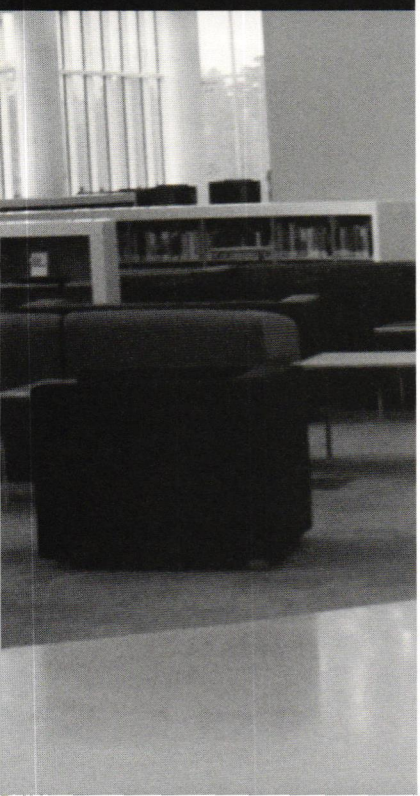

It is a dangerous idea to assume my designs should shift reality in a particular way because then the assumption is that my reality takes precedent over others.

An Interview With Nic Rader

jennifer peeler



Rader worked on the recently completed Hunt Library located on NC State's Centennial Campus. The library integrates technology with user centered design and changes the definition of what a library is and how it is used. Using examples from the Hunt Library, Rader discusses the role of design and architecture as forces for future thinking.



The subtitle of Volume 36 is: The role of design and designers in "Shaping, Framing and Reflecting Reality." Do you think of yourself and your work as shaping, framing or reflecting reality? How would you describe the differences between the three?

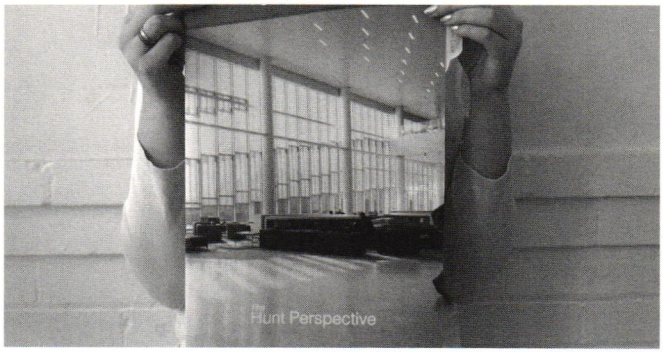
Our work as architects is primarily shaping reality, or perhaps more accurately, facilitating reality. In order to do so, we first must reflect on our audiences' condition in both the past and the present to better understand what values demand improvement. With this understanding, we can create frames or scenarios of our ideas and new conditions which we can test throughout the design process. The culmination of this testing is a physical construction that ultimately facilitates people's reality through specific interactions, discoveries or simply the provision of necessity.

At an overly simplistic level of thought, you may equate these three things to the three tenses: *Shaping = future. Framing = present. Reflecting = past.*

In design today, we talk a lot about user experience and user-centered design. How do you think that relates to how design affects reality? What is the role of technology in the shaping of reality (or design reality)? Has the idea of reality shifted as a result of it, and what implication does that have regarding the purpose and role of design?

Instinctively, people use this type of question to talk about things like mass-customization and the individual, but really well-thought-out user experience and user-centered design should be more about the collective. Tailoring something to the individual can open up a new awareness, discovery, or education of their surrounding physical, cultural, emotional, or intellectual context and overcome superficial personal aesthetics or functional preferences. The ability for design to reach new depths of user

IMG 01 - 09 *The Hunt Perspective.* Nghia "Andy" Tran.



specificity gives it the power to affect collective reality more than it ever has before. Rather than using this opportunity to introvert the user, focus on the extroversion of the user has the power to expand thinking and perspectives.

Technology becomes the platform for this extroversion—it is dynamic and interactive, encouraging adaptation by the user on a daily basis. The device and/or GUI is outdated by the time it is widely used, but its real role is the change in thinking, process, or accessibility that it creates. It shapes our reality by forcing us to confront the fact that life is not static.

The idea of reality has expanded and become more complex as a result of technology that highlights design's roles of simplification and clarification. In the creation of new technology, the design process is the major editor of the end product, be it a device, software, interface or synthesis of all three. When done successfully, what results from this distillation is a focused technology that reveals and catalogs a new spectrum of data in our current reality that can modify our future reality in the next iteration or (in the case of an adaptable technology) even in real time. The discovery of this new data is also the new frontier of contemporary society. Design's purpose does not change as a result, but it becomes increasingly more important in order to help navigate the exponentially expanding catalog of data and experiences.

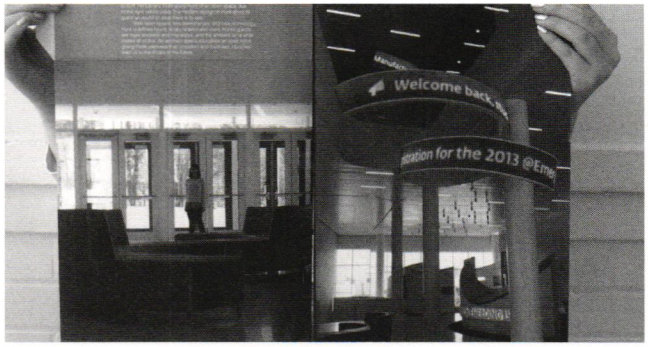
How does the Hunt Library represent Snohetta's philosophy?

Two main philosophies of Snohetta are that everyone has an equal voice and decision making by consensus building. Often times, this is more difficult than a straightforward hierarchical system, but we strive for it as best we can. The James B. Hunt Jr. Library exemplifies these philosophies by giving the users an opportunity to find or even create their own experience. Students now

As a complement to the interview with Nic Rader in which he discusses the design of The James B. Hunt Library, three graduate students in The School of Architecture ventured over to the library to discuss their thoughts and feelings about the environment created in the various spaces of the building.

Chelsea: I think Snohetta really made an effort to create many different types of spaces that can be adapted to individual student's wants and needs, aside from simply placing furniture and movable white boards around the building. There are several open study areas on various levels of the library that provide students with different environments. Some are more spacious with large tables for group study while others are more private with individual desks and partitions. It really gives students the ability to control their environment and forces them to become more aware of their physical context.

Xander: I was able to go on a tour of the library when it opened, and they referred to the various spaces as "neighborhood communities." I think it is interesting how a lot of these spaces are not defined by walls, but rather by the seating and moveable furniture. They also mentioned that there are 75 different chairs in the library, all chosen for a specific reason, that serve to create different spaces within a larger space. Something else I found interesting when I went on the tour is that when you sign up for a study room, you don't sign up for a specific room but rather by what you need the room for. You will then be assigned to a room that best fits your needs, both spatially and technologically. This is just one more example of how the library is flexible and caters to students' specific needs.



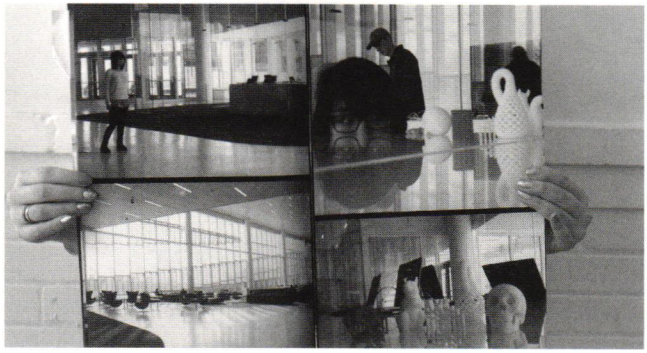
have unprecedented opportunities to modify their space to meet their needs, whether it's physically moving walls or furniture or digitally creating and displaying content. In the Teaching and Visualizations Lab on the 4th Floor the ceiling is equipped with a pipe grid, similar to that of a theatre, to allow for the moving and addition/removal of projectors, lighting, sensors and other yet-to-be-conceived-of technologies for students to experiment with. In addition to this technological flexibility, below the pipe grid there is a track system with moveable wall panels so students can physically reconfigure the space. All surfaces, except the ceiling, of the room are white to maximize projection surface. Other examples are the Immersion Theatre at the entry to the Library on the 2nd Floor where a curved wall of Micro-tiles wraps around the audience for an Imax-like experience, or the 3D printing lab where students can make their digital creations tangible. Even if a student has no interest in these new opportunities, there is a lengthy list of different types of spaces that they can explore and determine what is best suited for their purpose. The challenge we had was designing a space that was this variable and flexible but still had an iconic and powerful design.

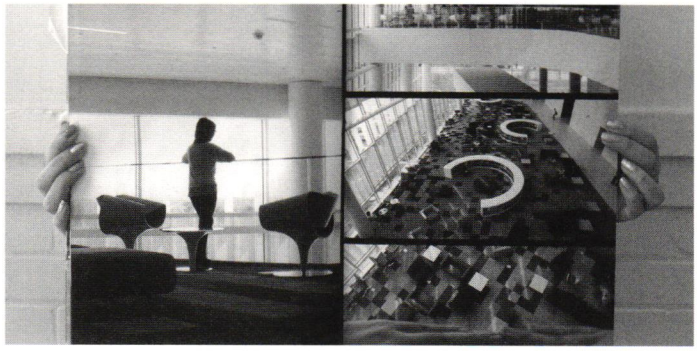
The variety of opportunities and experiences in the James B. Hunt Jr. Library opens up students to a new way of thinking, by giving them control over their environment and by extension, their learning. This is an experience not really seen anywhere else—on N.C. State University's campus or anywhere in the country. Our aim was to show that it is possible to break out of the norm and create something truly unique and innovative in a traditional context, creating a sense of worth and inspiration for realizing something typically thought of as impossible. This ultimately was the mission of the project and the result of a tightly knit group of collaborators: the client, the end-users, the design team, and the construction team. The process of design and construction itself was unique and an attempt to think about the design process

Holland: In his interview, Nic talks about how shaping can be equated to the future, framing to the present, and reflecting to the past. I think this concept can be applied to the library itself, and is particularly on display here (referring to the Quiet Reading Room on the 2nd Floor). This environment seems to be harkening back to that of a more traditional library, with books, tables and chairs that are identifiable with an older time. It's as though they intended the user to reflect on the past while being immersed in a distinctly modern building that is looking to and shaping the future. You experience this even while sitting in one of the group study rooms that overlooks the reading room. Though you are physically in a distinctly different space, you are looking down on the more traditional library and reflecting on the past. I really like this juxtaposition and how these rooms open up to that, forcing the user to become more aware of their surroundings.

X: (Referencing the Nextgen Learning Commons on the 3rd Floor) This appears to be the space that is most adaptable. I believe it is supposed to be a reading lounge, but it seems very casual and intimate. There are a variety of spaces defined by the different types of seating—high tables with stools, desks, and cubicles with partitions for more privacy. It's as though they have created microenvironments within a larger environment. When I have been here during busier hours, this seems to be the space that fills up the most.

IMG 01 - 09 *The Hunt Perspective.* Nghia "Andy" Tran.





differently through the design team selection process, the exploration of aspirations of the end-users, the comprehensive inclusion of all parties in the design development, the advanced technology used by the design team to work together remotely, the advanced technology used by the construction team to reduce schedule, cost and streamline work-flow, not to mention the trust necessary for all people involved in this untested process. All of these ingredients mixed together to create what is now the library, from a process and architectural standpoint I could not have imagined a better result. Hopefully, the students will agree with regards to how it can be used and how it functions.

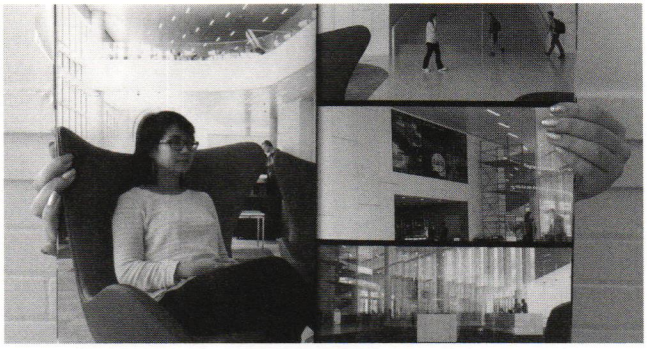
Do you think the Library has succeeded in integrating technology and space? Did designing for a library without shelves change the way you think of a 'library'?

The reality of this question is yet to be seen. While the design team successfully met or exceeded the physical infrastructural requirements of technology by today's standards, the successful integration of technology, space, and experience is up to the students and NCSU. Knowing the students of NCSU, I am confident they will continue to challenge the boundaries of their new technology—I just hope I have the opportunity to experience it.

Being a relatively young design professional, the notion of a modern library was already changing by the time I received my Master's degree. It did not necessarily change the way I think of a library, but it did allow me the time to refine my understanding and thinking of it in its current use. Libraries have constantly changed in the past several centuries, and much like everything else, they are simply changing at an accelerated pace now.

C: Nic talks about the role that technology played in the design and user experience of the library, and I think this is something incredibly apparent in every space here. Like this screen, for example, you simply have to touch for assistance and a staff member will come find you–it's almost like being in an Apple Store. The library doesn't really have a main circulation desk or central hub, so the user is almost forced to interact with technology.

H: Even to check out a book, which is perhaps the most basic, fundamental reason to be in a library, you must interact with technology. All of the books are housed in what they call the "bookBot" which is basically a robot that stores, catalogs, and retrieves books in a matter of seconds. Unlike a typical library that organizes books on shelves in a specific order, the bookBot stores books in bins, organizing them based on how often they are checked out. So, for example, a book that is frequently used will be placed towards the front of the storage room so the robot does not have to travel as far, making it an incredibly efficient system.



As a designer, do you feel obligated to shift the viewers' reality in a specific way? How would you describe the implications of this? Is it intrinsic to the design process, to the necessity of design or just an outcome of the creative process?

It is my responsibility to allow for the improvement of a viewer's reality. It is a dangerous idea to assume my designs should shift reality in a particular way because then the assumption is that my reality takes precedent over others. The best case scenario is to create a design that allows for a new thought or experience for the viewer of which they can evaluate and process as is appropriate for them. The newness is key here, because whether or not the discovery is positive or negative does not take away from the expansion of thought.

In order for design to stay relevant, it is imperative that it improves the viewer's reality. Without this, the alternative is stasis or dissension. Stasis is not possible because of the dynamic nature of reality and dissension means adverse affects on our audience's lives.

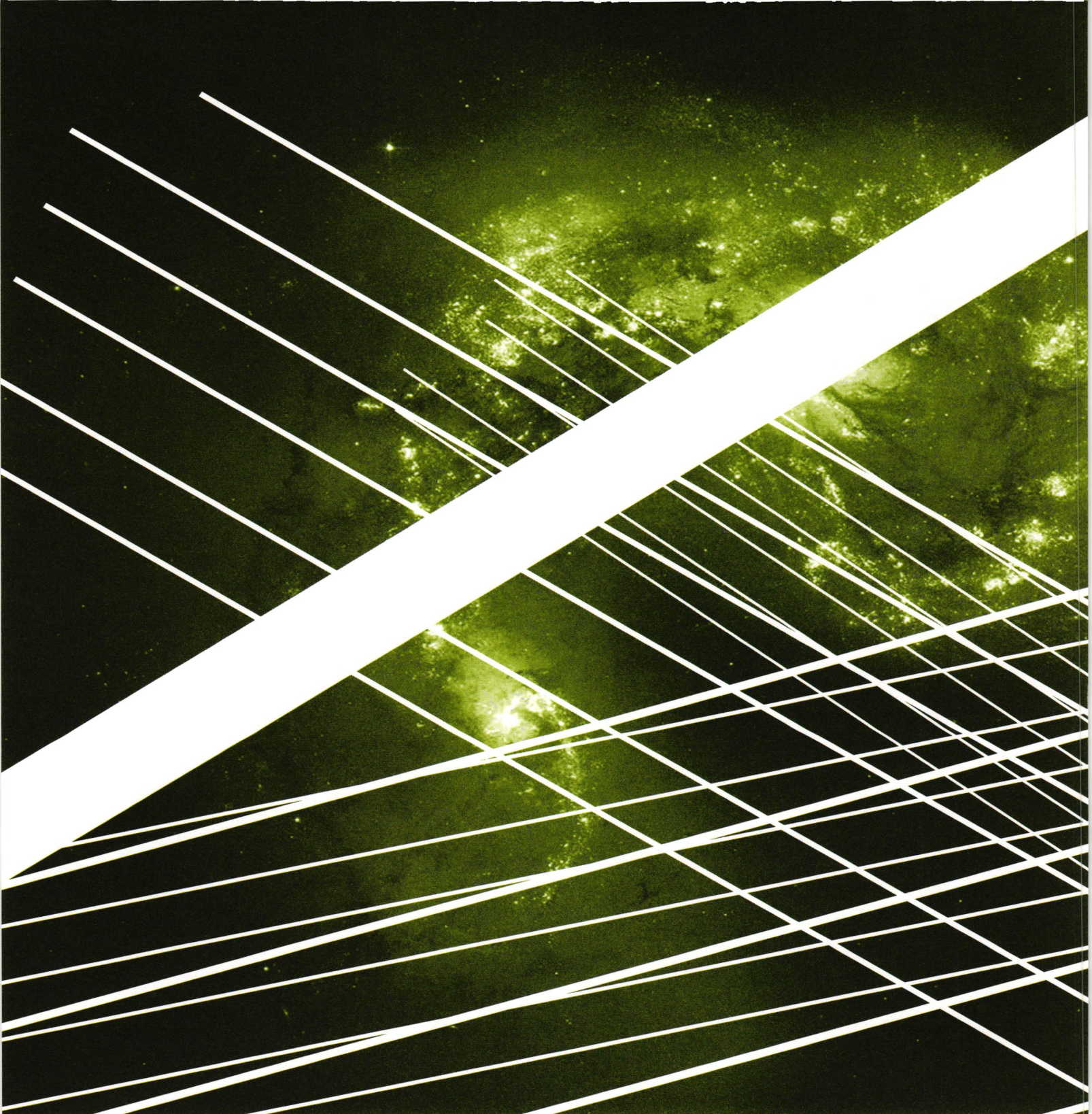
Special thanks to Chelsea, Xander, and Holland for their evaluation of Hunt Library. Thanks also to Nghia "Andy" Tran and professors Santiago Piedrafita and Pinar Ceyhan for the Hunt Perspectives visual essays. You can find more visual essays of the Hunt Library experience from the College of Design's sophomore graphic design studio online at: dev.design.ncsu.edu/student-publication ▪

X: And you can see it! There is a window on the ground floor that allows you to see the robot while it's working. I think there are nine in the United States, but this is the only one that can be seen by the public. Most of these systems are used by large corporations for filing purposes, but by installing it in The Hunt Library instead of a standard shelving system, they were able to reduce 40% of the building's footprint. I think that the use of this system and its transparency to the user strengthen Nic's idea about "breaking out of the norm" and "creating inspiration for realizing something typically thought of as impossible."

H: I agree that the bookBot and other technologies in Hunt Library are pretty interesting and make the building a showcase for modern technology. To that end, it seems as though the building has become more of a tourist attraction than an actual library. I think partly this is because it is so new, and I'm sure this will change over time, but right now it seems as though it is in conflict with the intended use. The newness of it will only last for so long, and the real test of how this library responds to the environment might only be able to be seen in 30 or 40 years. This could be the nature of design in general today and it's a great challenge for us to consider how that shapes our roles as designers.

IMG 01 - 09 *The Hunt Perspective.* Nghia "Andy" Tran.

The best case scenario is to create a design that allows for a new thought or experience for the viewer of which they can evaluate and process as is appropriate for them. – Nicolas Rader



IDEO and Human Centered Design

danny stillion

Danny Stillion is a Design Director and Associate Partner at IDEO, a global design firm. Here Stillion discusses human centered design and how the field is shifting the realities of the users. He also touches on the role of empathy in design and why it's important not only for his specific field, but for design in general.

Our work at IDEO deeply involves the shaping, framing and reflecting of reality. We believe that shaping reality is manifest in much of the work we do. For example, our design work is shaping the way folks are protected as consumers and will aid many as they enroll for health insurance moving forward. We shape interactions for contexts as diverse as operating room procedures and new learning environments for children. Our environment work has shaped how students experience spaces at universities and how wounded warriors returning home from duty are empowered through creating new types of thoughtfully designed homes. Framing reality happens through our human-centered design work. It takes place in a variety of human-centered research approaches we apply on projects carried out at IDEO. Recently, framing reality has even been happening online through forums such as our OpenIDEO offering. Questions and challenges addressing everything from, "How might we inspire and enable communities to take more initiative in making their local environments better?" to, "How might we better connect food production and consumption?" are framed up for contribution from a wide audience through OpenIDEO's innovation phases. Finally, reflecting reality is something that our work has always entailed as we strive to consider three key lenses of innovation in all our work. These lenses include a business lens that explores what is viable from an economic perspective, a technology lens that explores what is feasible in terms of technological innovation and a desirability lens that considers people's needs and aspirations.

As a broader section of humanity experiences both high-end and insight-driven design for emerging markets, design sensibilities are increasing. Consumers and those shepherding brands are becoming more aware of the value of human-centered design. This potentially will lead to a "virtuous cycle" in which society, through becoming more aware of the value of design and requiring it in goods and services, benefits increasingly from design excellence. As a result of valuing design, consumers are willing to pay more

for effective design. This will ultimately lead to another key in sustaining the virtuous cycle of design excellence; a broader global understanding and motivation to truly invest in human-centered design education informed by design thinking.

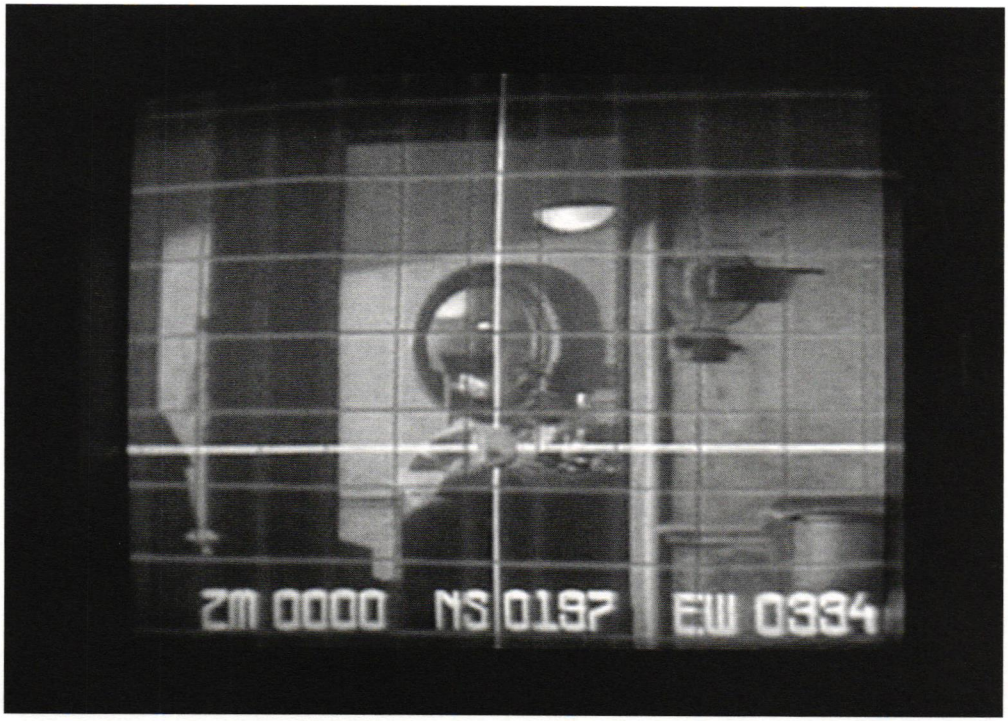
Regarding the role that technology is playing in shaping our reality, it is essential for designers to understand the opportunities that appropriate technologies bring to the design process. Having an affinity for understanding the possibilities technology brings to any challenge is critical in reaching truly innovative solutions. Working alongside enlightened, technically-oriented colleagues who are more inclined to say empowering things such as, "If you do this, it opens up these options" versus, "You can't do this and that won't be possible because..." is key to teams uncovering new design solutions.

The role that design has played in informing science fiction, and vice versa, must also be noted regarding the interplay of how technology and design have and are continuing to shape our reality. Seminal films like "2001: A Space Odyssey," "Bladerunner," "Minority Report," "Avatar" and even "Iron Man" are heavily influenced by industrial design and interaction design. Infused with visionary experiences, devices, forms of transportation and environmental design, each has served a key role in helping us be more thoughtful about the type of reality we each want to contribute to bringing to fruition. Works like these leave strong impressions of aspirational means through which the human race will overcome challenges through technology as well as cautionary tales in terms of what an over-reliance on technology might bring. In "Bladerunner," the main character Decker carries out a private investigation by navigating spatially through a photographic image. Today we routinely explore our planet using Google Earth and have panoramic street views to aid in our exploration. Glimpses of iPad-like devices can be seen used by the crew of the Discovery and the Enterprise. In fact, Captain Picard carries several electronic slates in "Star Trek, The Next Generation." One was about the size of the original iPad. A second was about the size of the recently released iPad Mini. This timeless desire to have powerful, mobile, connected digital devices that are easy to interact with has been illustrated in so many science fiction films. From companies emerging on Kickstarter to established firms like Apple, those that recognize deep human needs and aspirations and align their product and service offerings to these through design thinking will surely benefit from doing so. IDEO has, in fact, done its share of visualizing or shaping devices of this nature as well whether through future vision projects like the one done for Businessweek or through work we have done for Kobo and others in the e-reader space.

Our work at IDEO stems from real empathy with a client's intended users or audience. We draw inspiration from spending time with extreme users. We often design for them and with them early in our process by bringing provocations in the form of design artifacts to the conversation earlier in the design process.

For me personally, the futurist Syd Mead had a profound affect on my reality as a designer. Discovering his inspirational futuristic illustrations at an early age got me interested in illustration and I was always fascinated by how he balanced humanism and technology in his visions of the future. ▪

IMG 01 Enhance Button. *Blade Runner.* Warner Bros. Productions



IMG 02 PADD, Personal Access Display Device *Star Trek: The Next Generation.* CBS Television.


COUNCIL
PROUDLY
PRESENTS

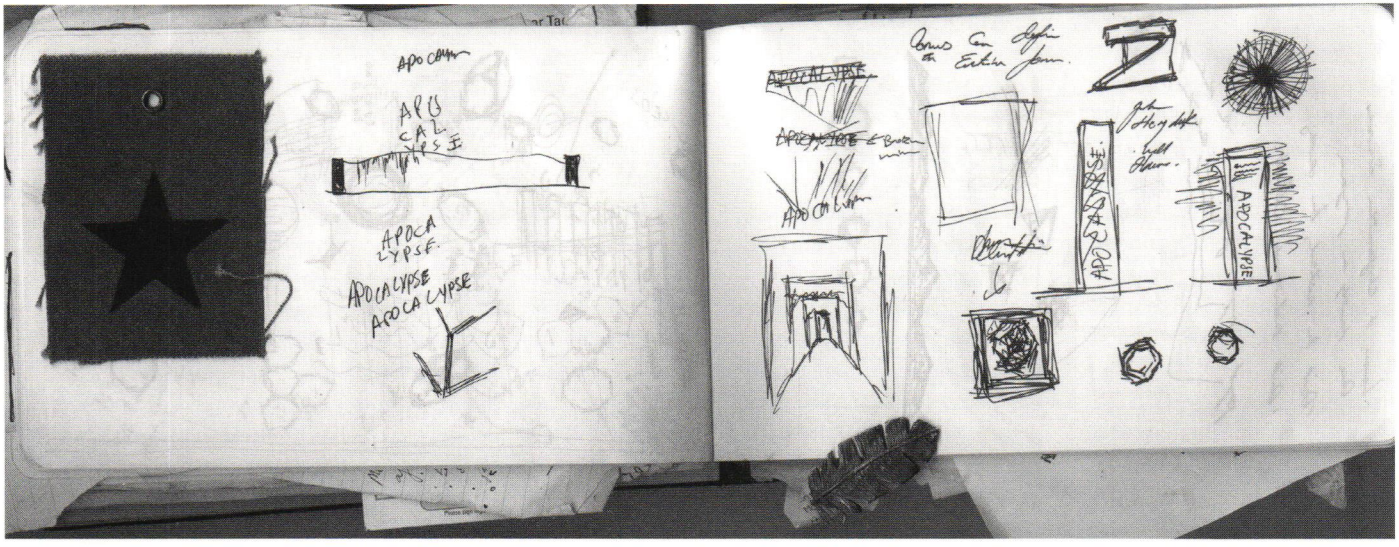
Between the Gap

stephen killian

Stephen Killian is a junior in Architecture within the College of Design at NCSU. As head organizer of the annual Halloween Bash, *Killian created a rich story, designing every artifact to fit within the context of the theme* Apocalypse. *Here he writes about his process, highlighting details and obstacles he encountered and overcame, and how they influenced the overall experience.*

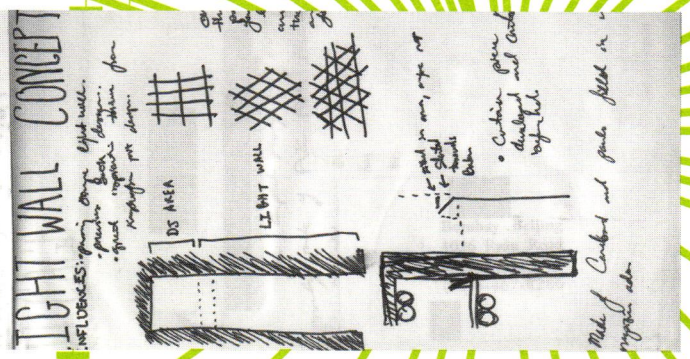
For many fields in the realm of creation, what is physically possible does not provide a barrier in the least to what the imagination can conjure. Novels, films and even live theater conquer a diminishing number of obstacles in what is not only possible, but also plausible.

The 2012 Halloween Design Bash (aka *The Bash*) presented me with a series of complications and necessary modifications. Within the first few weeks of designing the event, I knew I would have to organize it differently than others have in the past. The notion of a 'theme' and a 'concept' were extremely different and would have to be treated as such. I would decide upon the concept of *The Bash* months in advance, but the theme would be based on public input, which would ultimately label and form the event.



IMG 01 *Sketch Book.* Stephen Killian.

IMG 02-4 *Sketch Book*. Stephen Killian.



Often, acknowledged influence comes from the same genre—architects influence architecture, musicians influence music, chefs influence cuisine. Ideally, influence should be derived from anything the creator feels is most pertinent to his or her work, regardless of form. For *The Bash*, I found two primary influences—Kanye West's *Glow in the Dark Tour* with scenic design by Es Devlin and M83's album *Hurry Up, We're Dreaming*.

Both sources of inspiration hold the notion of *telling a story* at their core—a feat often reserved for novels, films, and theater. Yet today, the overlap of what is technologically possible and socially plausible provides an opening for alternative meanings to be culturally acceptable. It was through the influence of these two pieces that I began to sculpt the story I wanted to tell with *The Bash*.

As sophomores, students in the School of Architecture at NCSU are required to take an intense two-week "boot camp" in which they learn to draft and draw at a basic level through the study of the multi-leveled space between two distinct buildings in the College of Design. Known as the "Pit," this space is where *The Bash* has also been held since its inception. As a result of this class, I knew every detail of the space and I envisioned the concept as a massive installation that would exist within it for a few hours. Each piece would fit seamlessly into the punctures and perforations of the bricks that envelope the space. There would be six twenty foot tall "light walls" that would fill the portico, each able to open and close. The DJs would play mercifully from the second floor to the public on the first and the twenty foot square "kiva" would serve as a pre-show room where guests would be briefed on the mission for which they voted. Special effects would transform this already notable space into an incredible one, and this became the core of the concept. I worked tirelessly to create an alternative realm, suggesting a mission to be completed, yet never disclosed. After the *Apocalypse* theme was chosen, the tickets were designed as draft letters, informing guests that they were being drafted into the "United States Apocalypse Recovery Armed Forces." They would be branded upon their entrance and informed that their spastic movements (also known as dancing) would help to generate energy to raise the fallen sun. Disc jockeys were merely entertainment and the entire event would take place within an arena. I dreamt of a world in which 'ensigns' would lose themselves in a fit of passion and finally break free from the ropes of their ordinary existence. I developed detail upon detail of *The Bash*, articulating the smells, the sights and the sounds I wanted guests to experience.

Unfortunately, the realities of design development often remind us of what is physically possible. People are unreliable or do not share the same vision. Budgets are small. Weather is random at best. Guests don't share the same enthusiasm. As the event drew nearer, ideas had to change. For a number of unforeseen reasons, we were forced to move the event from the Pit to a nearby parking deck. Hours of work and thought

were seemingly thrown away as we met with officials at the last minute. The immense space swallowed what we had created. It was within this experience that I discovered holding steadfast to one's aspirations is the thought of an impoverished mind. What one wants cannot be what one gets. Should this ever be the case—should the ability to create any alternate reality become reality—all dedication and aspiration would cease to exist. It is of grave importance that the ability to create anything with perfection remains a distant dream. The notion of a perfect implementation of one's vision must itself remain an alternate, unreachable reality. One must suspend their disbelief concerning what is possible to create what is phenomenal. Even if the result is less than imagined, there is a distinct possibility that it will remain incredible.

Within what we aspire to and what we become there exists a gap. It is between the thin, but brutal, lines of this gap that we discover who we are. In the space separating these two notions we find what drives us, what inspires us, and above all, what we fear.

Fear is an intoxicating perception that can blind us from what we can achieve. Like ropes, it wraps around one's heart, throat and mind, choking until nothing but a corpse of conviction exists. Multiple times I feared that what I desired for this event could no longer become a reality. I feared that what I dreamt and promised would in fact be a malnourished disarray of shattered expectations and ambitions. Fear is a lack of faith that one's expectations will never align with reality. Throughout the design process for *The Bash*, I felt the ropes of fear knotting around me and pulling me back to what is possible and plausible.

The suspension of disbelief should never be relied upon in a final product of design or creation. However, in the creation of that work, it is critical. Without it, a substantial experience within the miniscule realm of reality would no longer exist. What we aspire to create should always be considered overbearing and unrealistic. To dream within reality is to allow oneself to live within the ropes of fear. While we must dwell within the gap, we must continuously attempt to break the lines that create it. ▪


assume an alternate persona
based on a blend of fiction
and fact

Altered Egos

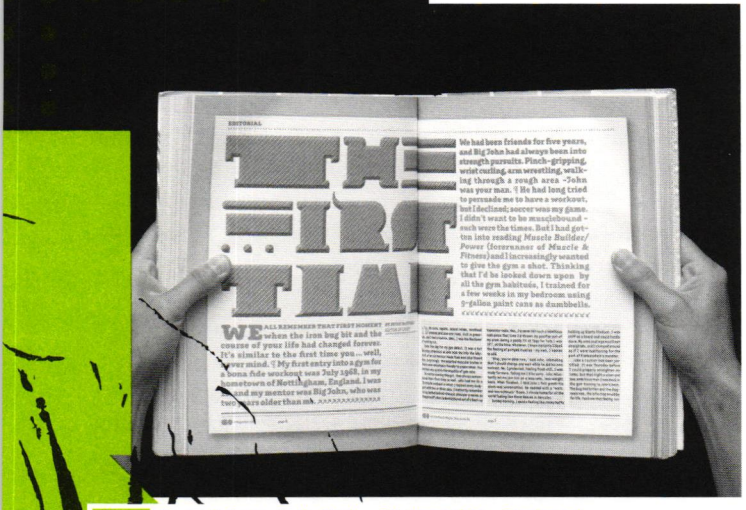
silas munro

Silas Munro is the principle of From the Desk of, *a graphic design studio based in Miami, Florida. He is currently Chair of the MFA Program in Graphic Design at Vermont College of Fine Arts. He's been published in* GOOD, Novum, SpeakUp, *and by the* Walker Design *blog. For the past five years, Munro has studied the concept of the* Alter Ego, *giving students the opportunity to design their own alter ego based on fact and fiction.*

Do you recognize the name Candy Apple? The Fifth Banana? Maybe tough guy Jan Buffman? BoarMan BongDestroyer? What about sweet Jane Doe? The prolific William Guest? If none else, certainly the honorable Dr. Hermann Pütterschein? You might be more apt to know these names if you had been given a graphic design assignment called *Alter Ego* or known one of my students who'd completed it. Each of the above is a *nom de design* of a graphic designer, some quite well known.[1] The project has shifted and evolved with each iteration over the last five years I've been teaching it, but the core prompt remains the same: *Design an Alter Ego. Use graphic design to discover and assume an alternate persona based on a blend of fiction and fact.*

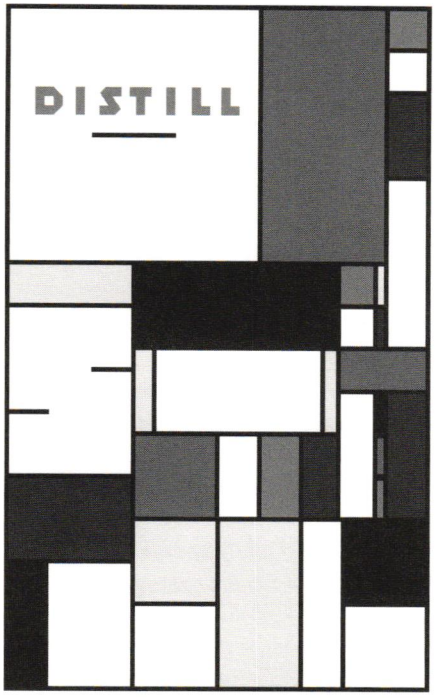
Alter Ego started as a spin off from my Master's Thesis, *Poly-Mode*[2], in which I proposed the idea that designers can create a mutable system of strategies and frameworks to form a cohesive design identity. I sought to build a unique practice that is identifiable but not homogenous, singular but never exclusionary. I know this to be possible, but this wasn't always the case. In the fall of 2007, I was mid-way through my own graduate experience and I was lost. My main struggle was defining a conceptual and formal agenda of my own. Michael Worthington, my mentor at the time, wrote, "the work was truly excellent, but was also slightly anonymous. For the next year it is less of a case of Silas making good work and more of a case of Silas asking himself what kind of work he wants to make, what kind of issues he wants to deal with, and this might be an initially less productive period ... it will certainly involve taking more risks and stepping into uncharted territory."[3] For me, risk came in the form of writing fiction. This writing became a key tool of inquiry before producing visual proof (albeit speculatively) of a design methodology that could be my own.

Poly-Mode took the form of a bound sequence of four publications, one for each of four fictionalized personas that I

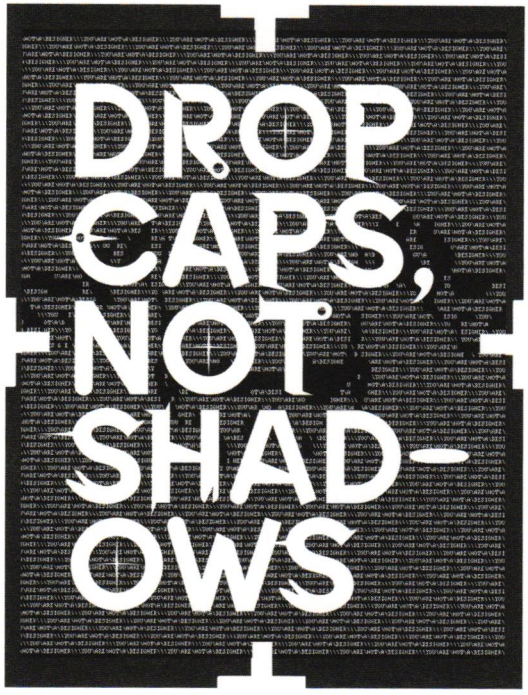


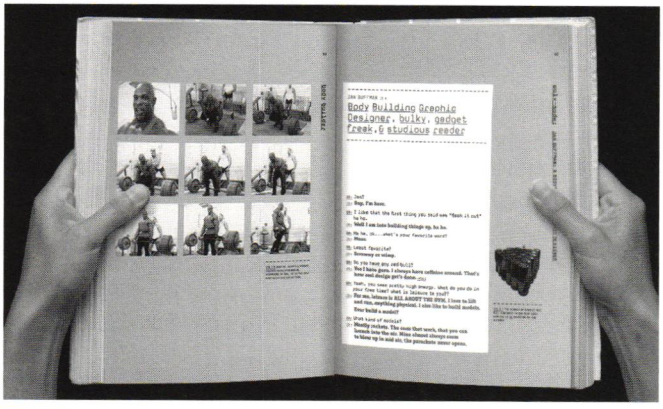
IMG 01 Spread from *Poly-Mode*, GO Magazine. Designed by Jan Buffman AKA N. Silas Munro, CalArts, 2008.

IMG 02 Distill Poster, Lee Stevens
AKA Stephen Lee, CalArts, 2008.



IMG 03 Gradients are for Lazy Sods Poster, Johnny Bravo
AKA Christopher Morabito, CalArts, 2008.





IMG 04 Spread from Poly-Mode, GO Magazine. Designed
by Jan Buffman AKA N Silas Munro, CalArts, 2008.

queer, and philosophical alter egos was borne the aforementioned bodybuilder, Jan Buffman. a self-described "brawniac" graphic designer and gadget freak who was art directing a sci-fi weight-lifting magazine. Another persona, Parabola Munabi, was a biracial, utopian graphic designer hailing from an archetypal planned community. He explored duality in a publication about his hometown, Reston, VA. Each publication was accompanied by a mock interview with the imagined designer. Thanks to iChat, pre-written questions and my classmate, Colleen Corcoran, I was able to form an "inside the designer's studio" where I cross-examined these parts of myself. I found this act of fictive, self-generated form making to be incredibly fruitful in deconstructing design processes. I actively chose it to become part of my pedagogy. It works well for designers questioning how their personal voice fits into the universal practice of graphic design.[4]

The work represented alongside this text was done by graduate students in programs across North America, save for a band of undergraduate students that I worked with during a design residency at NC State. *Alter Ego* has become effective for graduate students who are questioning their own formal explorations. The brief does not seem particularly crazy from my point of view as

an educator, but that is not how students see it at first. Even the most open-minded tend to be skeptical of the assignment. Their brows furrow and ask: "What the #$*! does fiction have to do with graphic design?" To a graduate student who has enrolled in a "serious" program, within the often self-"serious" discipline of graphic design, assuming an adopted persona seems to lack rigor. I counter that we live in a co-creationist, transdisciplinary world that demands multiplicity. A light-hearted exploration provides space to build critical empathy they can foster with their audiences. Why are we wanting to be graphic designers in the first place? And what kind of design do we hope to practice? How does this graduate degree support or augment that aim? What could our profession look like in response?

Despite initial doubts, my students and I have witnessed remarkably insightful evolutions of character (fictitious and factual). Along the way, other educators engendered significant improvements to *Alter Ego*. I name these people and places with a deeper purpose than promotion: I hope to map them in the complex fluctuating life of this project, one that is, in a word, rhizomatic. In a rhizome, each node supports the lateral structure. Each alter ego has helped to build this larger, collective design story. Just as every designer learns to form the narrative of their practice from the bottom up, one project at a time.[5]

Alter Ego was first assigned in 2008 at CalArts as the final project for a class of PMFAs—students who come to design with no previous training and spend a focused, preliminary year of formal and conceptual training before embarking on the standard, two-year MFA track—under the auspice of Mr. Worthington, for whom I was a teaching assistant. This class boasted a mix of students from backgrounds as diverse and wide-ranging as philosophy, biology, film-making and literature and proved to be an ideal test group for my nascent brief. Their newly conditioned training allowed them to suspend disbelief and come at their practice more imaginatively and openly. The aforementioned Ms. Doe, a serial killer graphic designer otherwise known as Hyejin Lee, created patterns for other graphic designers to use. What first seemed to be organic fruit blooms were actually vicious monsters hiding in the flora. Duy-Khuong's transgendered, iconoclastic graphic-diva, Mz. Indosheen Extravaganza wrote in zher/hiz [sic] Manifesto for Fabulousness: "Be obsessed with that which is Liminal—without category, without place, in transition, in between, and never resolving completely to one or the other. Remember your social

IMG 05 Altered Egos Installation, Teddy AKA Teresa Cunningham, NC State, 2009.

IMG 07 Inside the Designer's Studio with Jan Buffman, Otter AKA Emma Sherwood-Forest, MICA, 2012.

IMG 08 VAL Collection, VAL, AKA Richard Blake, MICA, 2012.

position, sexuality, and cultural baggage are always present in your thinking. They are your scabs. Pick at them because they will always remain." The imagined personas speculated on future paths for the individual designer. Taken collectively, they form a rhizome of many potential directions for the alter ego.

Before I knew it, in the spring of 2009, former Design Chairs at North Carolina State, Santiago Piedrafita and Denise Gonzales Crisp, allowed me to adapt the brief to their program. In a junior studio called *Form as Mode of Thought*, students tackled *Alter Ego* alongside other formal investigations from a systems perspective. This was cultivated as an alternative to other pedegogical approaches that have prefaced pure intuition and process for process' sake. Under the additional guidance of Meredith Davis and Martha Scotford, I was able to pilot an untested studio woven into a new undergraduate curriculum that was questioning many long-held beliefs about design education.[6] The students offered up new ways of thinking about making via a thrilling dialogue of what they made and how they reflected on that making.

Teddy AKA Teresa Cunningham said this about the process: "I have been made drastically aware of my crutches, my comfort zones, and my limiting tendencies. And I'm finally able to look past the mindset of the girl who said two weeks ago, 'I think good design must be planned and organized. Or it's ugly.' " Teresa entered the studio as a very rigid designer. She was forever putting boxes and limits in her designs. This over-rigidity stifled and blocked her work. By conceiving of the imaginary Teddy, an open and rebellious persona, she came to a new freedom and freed the restrictive side of her self. This sounds like a catch-22 and Teresa's classmate Jamie Wolfe addressed the implicit contradiction of having an *Alter Ego*:

While I said I hated Sachi, I really don't. I think we need each other. I'd go out with her and get a glass of wine. I think she could be a good, opposites attract, friend for me. But really, do you want to know the most hysterical, most fantastic part of this experience? Sachi Chudasama is Jamie Wolfe. I made all her decisions. All this talk about hating her and how different her process is than "mine"? That was me I was talking about.

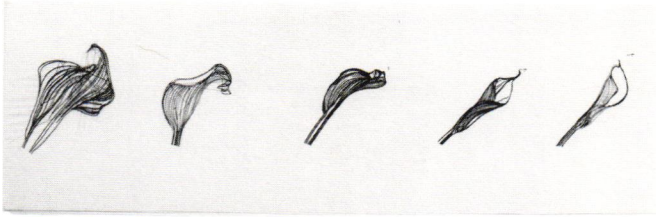
Jamie had a practice that was more Teddy than Teresa. With *Alter Ego* she gave mindful structure to her work and showed me how adaptable the project could be.

And so the rhizome of *Alter Ego* was growing. The lateral insights of my colleagues and the bottom-up explorations of my students offered more evidence that fiction could be freeing to graphic designers. In 2010, York University students advised by Michael Longford and Angela Norwood created more alter egos and built critical confidence. Most recently, two classes of graduate students that I co-taught with Jennifer Cole Philips at MICA in 2011 and 2012 added more growth to the project. Projects made became more complex, nuanced, and formally sophisticated. With longer timelines and the aid of two instructors, the fictions generated read more like fact. Studies were deconstructed into pieces. Deft attention to production quality made for life-like embodiments of what had been gestures. Pieces morphed to systems of work. These were potent, powerful totems that felt all very real. The MICA students even improvised video interviews with their personas with guts and remarkable grace.

Other than giving me the chance to feel humbled to work with them, what do students in programs as diverse as CalArts and MICA have in common? All of the students were at a pivotal point in their formal training, whether at the start of the semester

IMG 09 Odds & Ends for the Rogue Taxidermist, Cynthia Mortimer AKA Jackie Littman, MICA, 2012.

IMG 10 Bursting and Blooming, Marie Jacqard, AKA Hong Wei, MICA, 2012.



or the end of the year or joining a completely new discipline, or breaking down learned methodologies. They were at school at a time for re-defining and re-designing their practice (and likely themselves in the process).

Alter Ego is a useful case study for anyone at a crossroads in their design practice. I know this as an educator and firsthand as a student. Usually graphic design pedagogy asks students to imagine their work in response to a fictive outside world. A "real world." *Alter Ego* emulates the process of graphic design but more pointedly asks questions of the maker. By turning the standard design brief inward, the graphic designer is able to uncover heretofore unrealized internal tendencies and predilections that re-illuminate form making for the individual. By donning a playful mask, students can find the presence of the maker within the complex archive of our contemporary life. They are free to deploy form + fiction to design who they know into someone that they want to know better: a potential future self. ▪

References

(1) For an excellent piece connecting fictive personas to critical design discourse see Gonazles-Crisp, Denise, "Discourse This," *Design and Culture*, Vol. 1 (London: Berg, 2009)

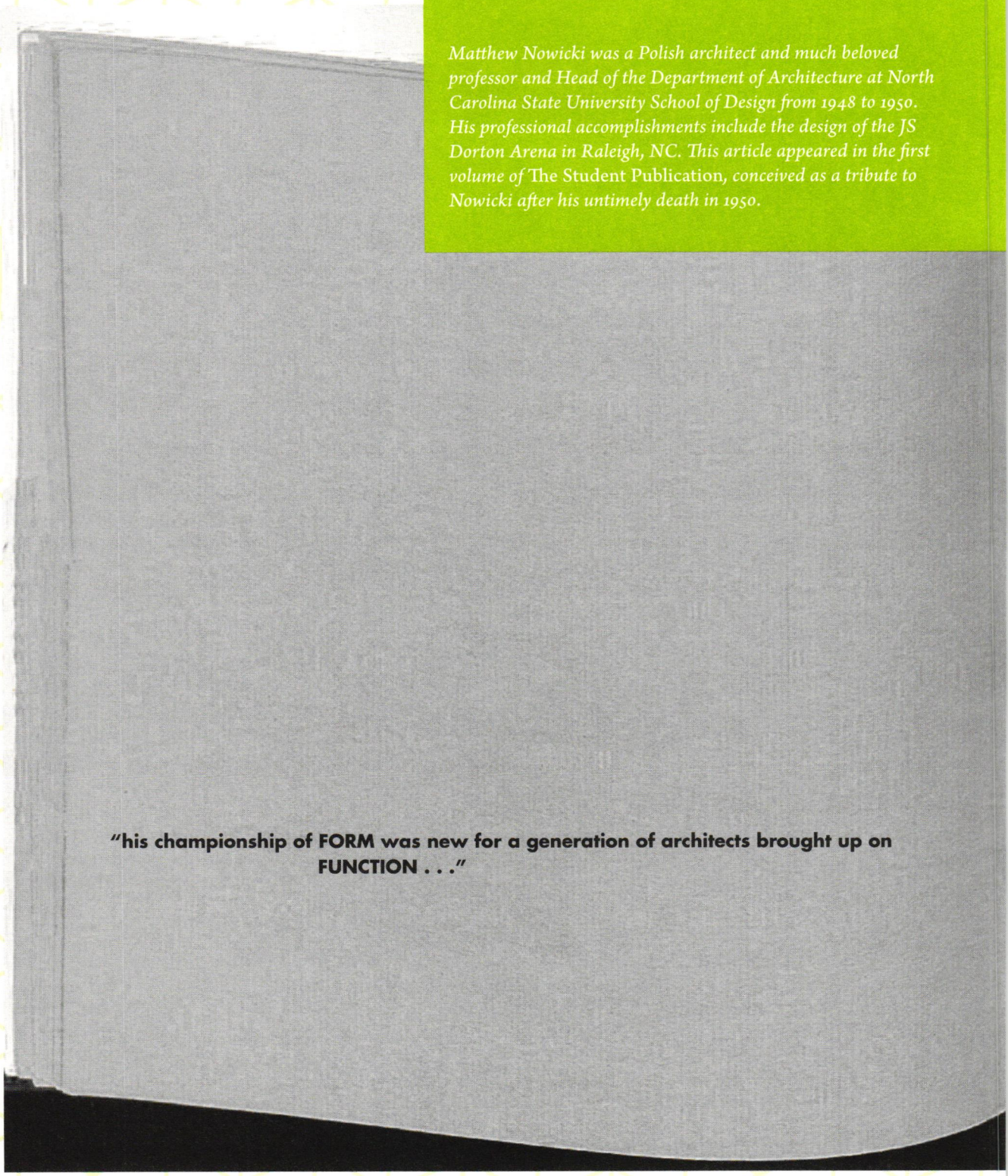
(2) N Silas Munro, *Poly-Mode*, MFA in Graphic Design Thesis. Document, (California Institute of the Arts, Valencia: 2008). Advisors included: Andrew Blauvelt, Edward Fella, Jon Sueda, Louise Sandhaus, Lorraine Wild and Michael Worthington and countless peers in my program.

(3) Michael Worthington, *Mentor's Spring Report* (California Institute of the Arts, Valencia: 2007)

(4) This is adapted from a phrase by Segun Olude, GD MFA candidate at Vermont College of Fine Arts: "What is Personal is Universal." (Transcribed, Vermont: October, 2012)

(5) Rhizomatic is a non-hierarchical philosophical concept that allows for multiple entry and exit points in looking at the world. It's a French word play on the botanical term for a mass of underground roots that grow horizontally as apposed to vertically. See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, (University of Minnesota Press: 1987)

(6) Davis, Meredith "Toto, I've Got a Feeling We're Not in Kansas Anymore..." *Interactions*, September/October (New York: ACM, 2008)



Matthew Nowicki was a Polish architect and much beloved professor and Head of the Department of Architecture at North Carolina State University School of Design from 1948 to 1950. His professional accomplishments include the design of the JS Dorton Arena in Raleigh, NC. This article appeared in the first volume of The Student Publication, *conceived as a tribute to Nowicki after his untimely death in 1950.*

"his championship of FORM was new for a generation of architects brought up on FUNCTION . . ."

ON EXACTITUDE AND FLEXIBILITY

Matthew Nowicki

Sometime ago our design became a style. No matter how ingeniously we dodge the unpleasant issue, it comes at us with full force in thousands of creations of the contemporary designer. Our design is a style, with all the restrictions, disciplines, limitations and blessings that we usually associate with the term. A style in the similarities between designs differing basically in the purpose of their use and destination, subordinating to its demands a refrigerator or a motor car, a factory or a museum. A style which perhaps follows sales, quoting Edgar Kaufman, just as form followed function in the words of Greenough and Renaissance architecture in the work of Palladia followed its antique models. A style as pronounced, as defined, more limited perhaps, and as legitimate for our times as the style of Renaissance has been in its days.

In the growing maturity and self-consciousness of our century, we cannot avoid the recognition of this fact, and we have to realize what it stands for. We can no longer avoid this term "style" simply because it brings to our minds unpleasant memories. We cannot keep on pretending that we solve our problems without a precedent in form. We have to realize that, in the overwhelming majority of modern design, form follows **form** and not **function**. And even when a form results from a functional analysis, this analysis follows a pattern that leads to a discovery of the same function, whether in a factory or a museum. Approached in a certain way an answer to every architectural problem is a flexible space with no reason why one flexible space should be different from another, and many practical reasons why they should be alike.

In saying all this, I am not an advocate of diversity in design for its own sake. Such a diversity is just confirming the rule of regimentation that always is the result of a style. The more one attempts to escape one's period, the more a part of it one becomes. The constructive diversity that provides strength to an expanding and virile civilization comes through a creative sensitivity to the eternally changing circumstance where "every opportunity stands alone."

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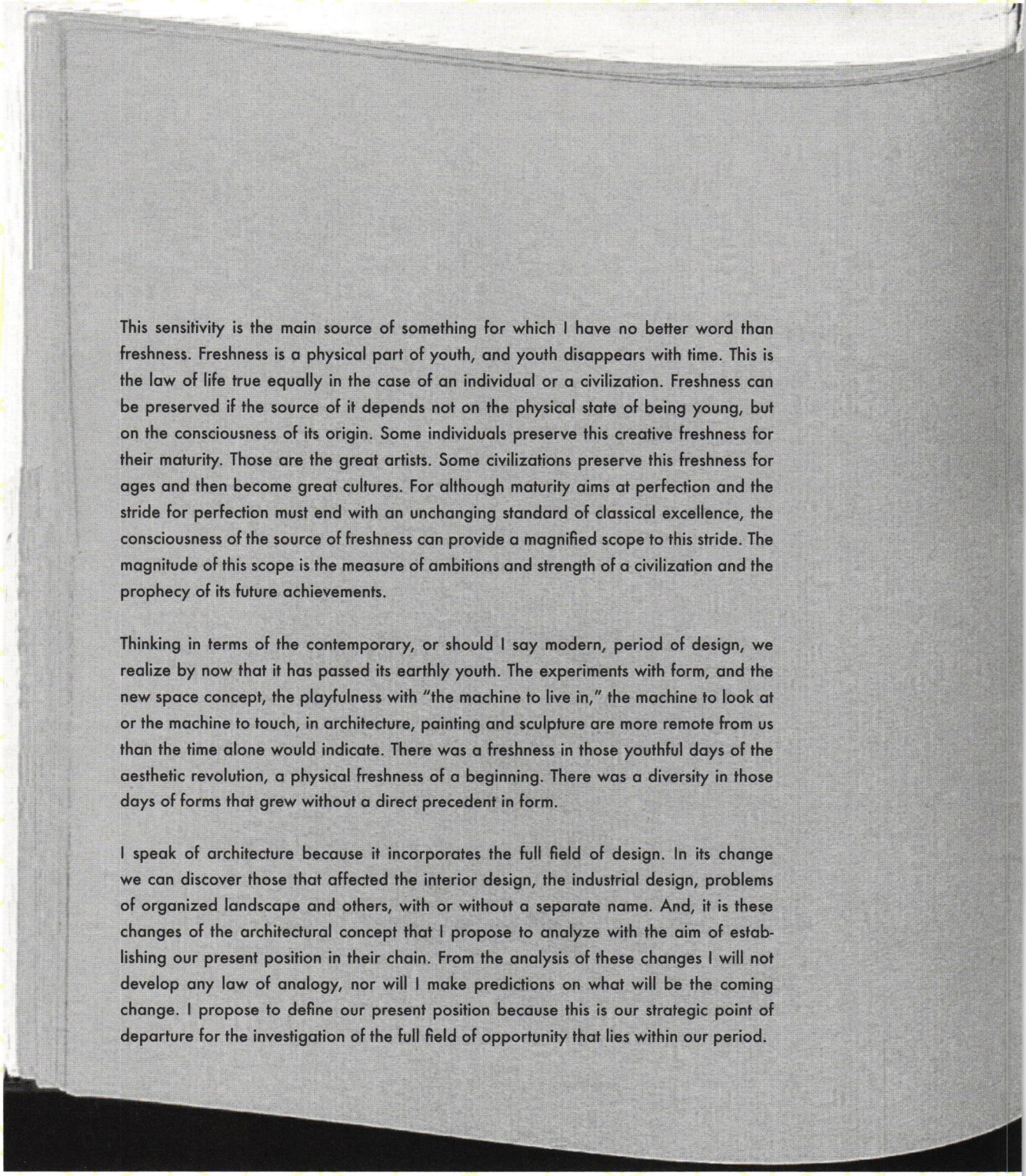
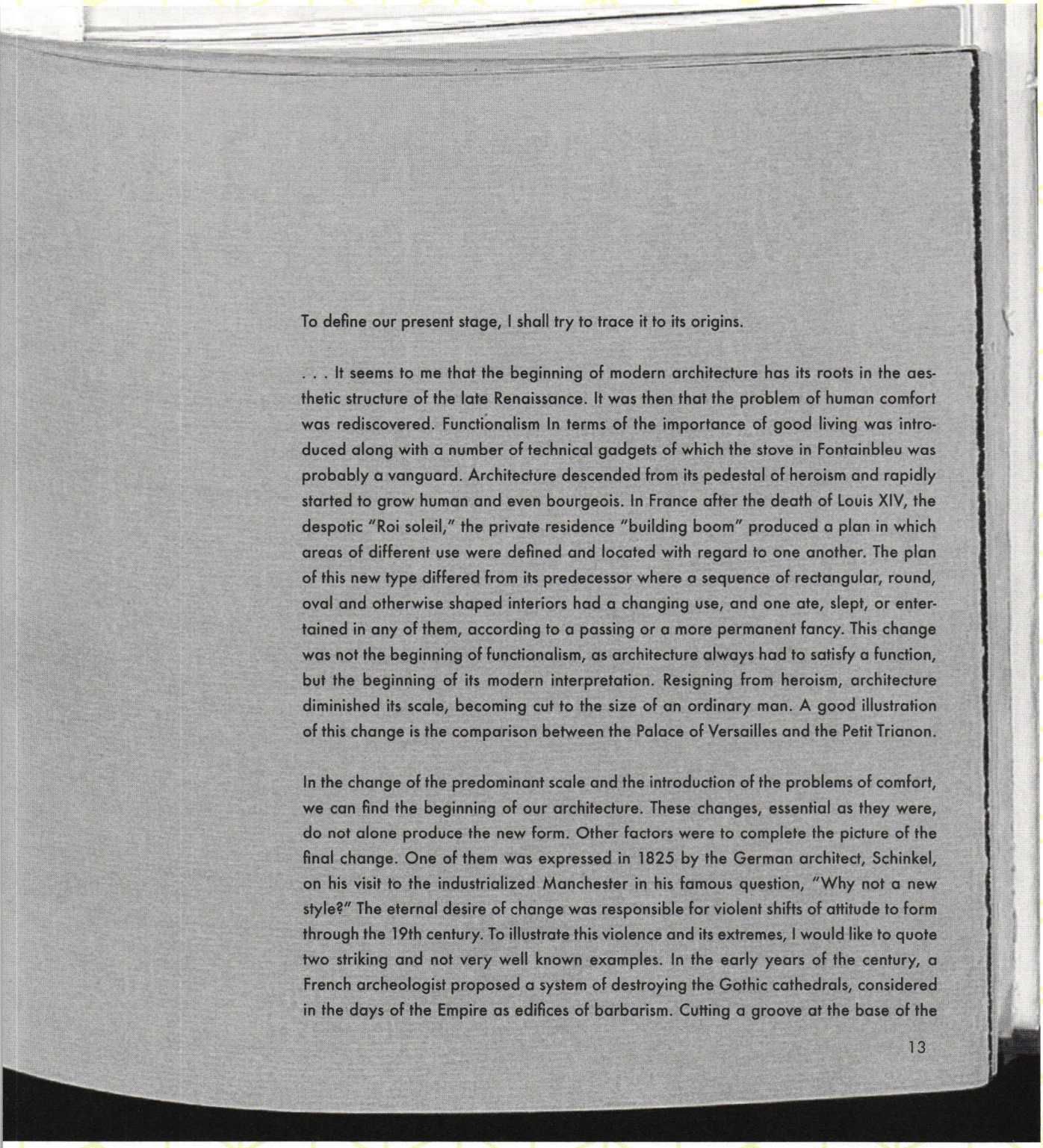


This sensitivity is the main source of something for which I have no better word than freshness. Freshness is a physical part of youth, and youth disappears with time. This is the law of life true equally in the case of an individual or a civilization. Freshness can be preserved if the source of it depends not on the physical state of being young, but on the consciousness of its origin. Some individuals preserve this creative freshness for their maturity. Those are the great artists. Some civilizations preserve this freshness for ages and then become great cultures. For although maturity aims at perfection and the stride for perfection must end with an unchanging standard of classical excellence, the consciousness of the source of freshness can provide a magnified scope to this stride. The magnitude of this scope is the measure of ambitions and strength of a civilization and the prophecy of its future achievements.

Thinking in terms of the contemporary, or should I say modern, period of design, we realize by now that it has passed its earthly youth. The experiments with form, and the new space concept, the playfulness with "the machine to live in," the machine to look at or the machine to touch, in architecture, painting and sculpture are more remote from us than the time alone would indicate. There was a freshness in those youthful days of the aesthetic revolution, a physical freshness of a beginning. There was a diversity in those days of forms that grew without a direct precedent in form.

I speak of architecture because it incorporates the full field of design. In its change we can discover those that affected the interior design, the industrial design, problems of organized landscape and others, with or without a separate name. And, it is these changes of the architectural concept that I propose to analyze with the aim of establishing our present position in their chain. From the analysis of these changes I will not develop any law of analogy, nor will I make predictions on what will be the coming change. I propose to define our present position because this is our strategic point of departure for the investigation of the full field of opportunity that lies within our period.



To define our present stage, I shall try to trace it to its origins.

. . . It seems to me that the beginning of modern architecture has its roots in the aesthetic structure of the late Renaissance. It was then that the problem of human comfort was rediscovered. Functionalism In terms of the importance of good living was introduced along with a number of technical gadgets of which the stove in Fontainbleu was probably a vanguard. Architecture descended from its pedestal of heroism and rapidly started to grow human and even bourgeois. In France after the death of Louis XIV, the despotic "Roi soleil," the private residence "building boom" produced a plan in which areas of different use were defined and located with regard to one another. The plan of this new type differed from its predecessor where a sequence of rectangular, round, oval and otherwise shaped interiors had a changing use, and one ate, slept, or entertained in any of them, according to a passing or a more permanent fancy. This change was not the beginning of functionalism, as architecture always had to satisfy a function, but the beginning of its modern interpretation. Resigning from heroism, architecture diminished its scale, becoming cut to the size of an ordinary man. A good illustration of this change is the comparison between the Palace of Versailles and the Petit Trianon.

In the change of the predominant scale and the introduction of the problems of comfort, we can find the beginning of our architecture. These changes, essential as they were, do not alone produce the new form. Other factors were to complete the picture of the final change. One of them was expressed in 1825 by the German architect, Schinkel, on his visit to the industrialized Manchester in his famous question, "Why not a new style?" The eternal desire of change was responsible for violent shifts of attitude to form through the 19th century. To illustrate this violence and its extremes, I would like to quote two striking and not very well known examples. In the early years of the century, a French archeologist proposed a system of destroying the Gothic cathedrals, considered in the days of the Empire as edifices of barbarism. Cutting a groove at the base of the

limestone columns, then surrounding them with piles of wood and setting fire to them was suggested. The archeologist was convinced that under this treatment the unsavory structure would crumble "in less than ten minutes" relieving civilization of its shameful presence.

A few decades later Ruskin, paving the way for the Pre-Raphaelite movement, wrote in his *Modern Painters* that no public funds should be spent to purchase paintings later than Raphael, as the spirit of art was confined to the medieval period and replaced by the superficial technology of a craft.

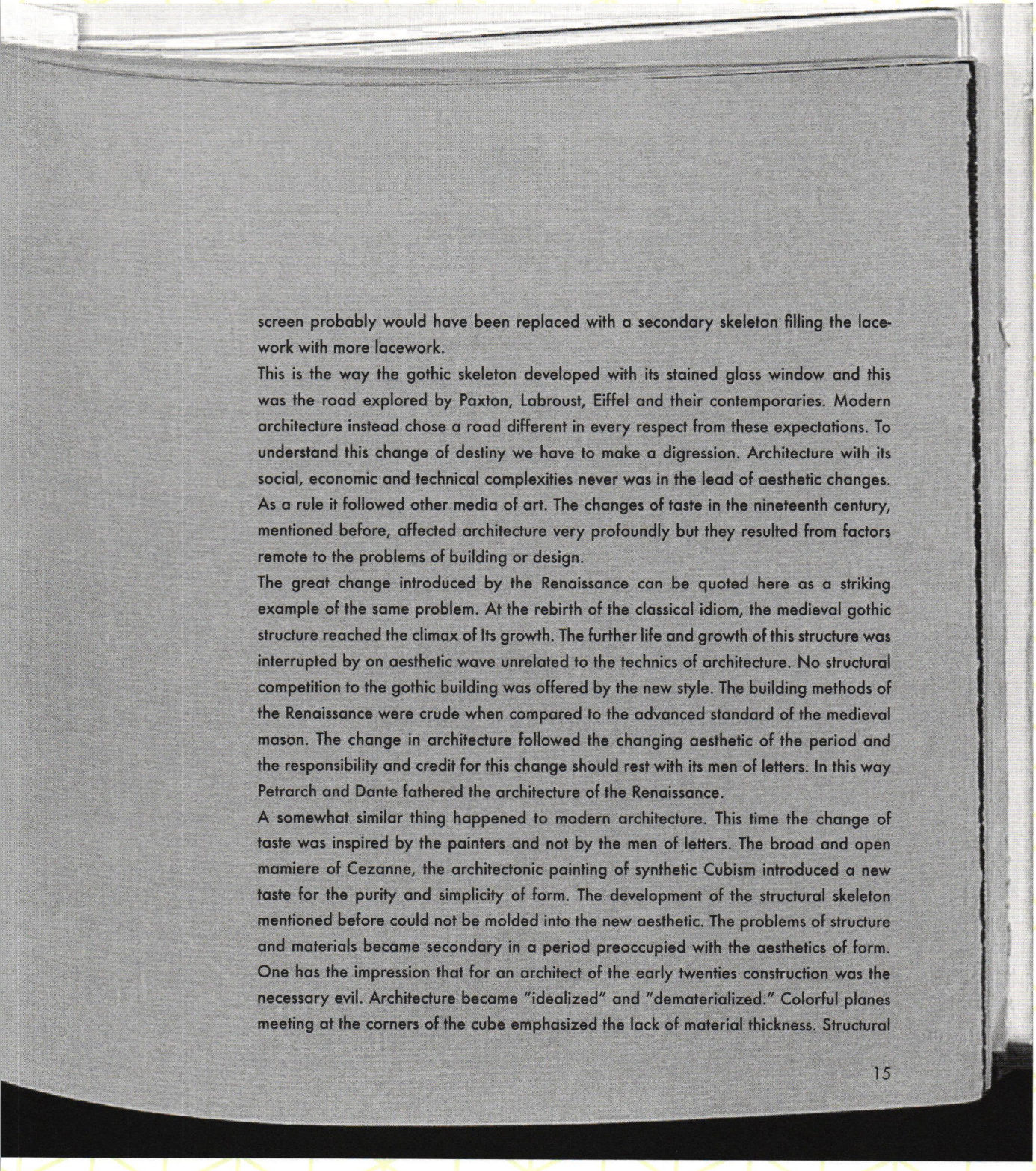
Out of these shifts of sympathies came the consciousness that some basic change in eclectic sequence is indispensable. This was the psychological background to what we call the "modern" form. And although we shudder at the word style, Schinkel's search for its new expression contributed to the birth of modern architecture perhaps as much as any other factor.

No new form of architecture could hove been created without a new structure, and the psychological receptiveness had to wait for its fulfillment until the structural possibilities ripened.

The middle of the last century with Paxton's Crystal Palace–its modular re-erection of a new site, its space concept of openness, created a new era. The following use of iron, then ferroconcrete and steel created the spine of the new frame structure, from those days on dominant in modern building.

Independence of the partitioning wall from the frame created the free plan and, thus all elements of the new architecture were present at the beginning of our century.

What would have been the characteristics of modern architecture had it followed the direction of those early days? Its form influenced strongly by the expression of structure would have been intricate and detailed. The logical development of the skeleton would have accentuated the delicate ribs dividing areas of the building into supporting and supported members. The resulting form would perhaps hove acquired the lightness and openness of lacework filled with translucent or opaque screen. In its final stage the

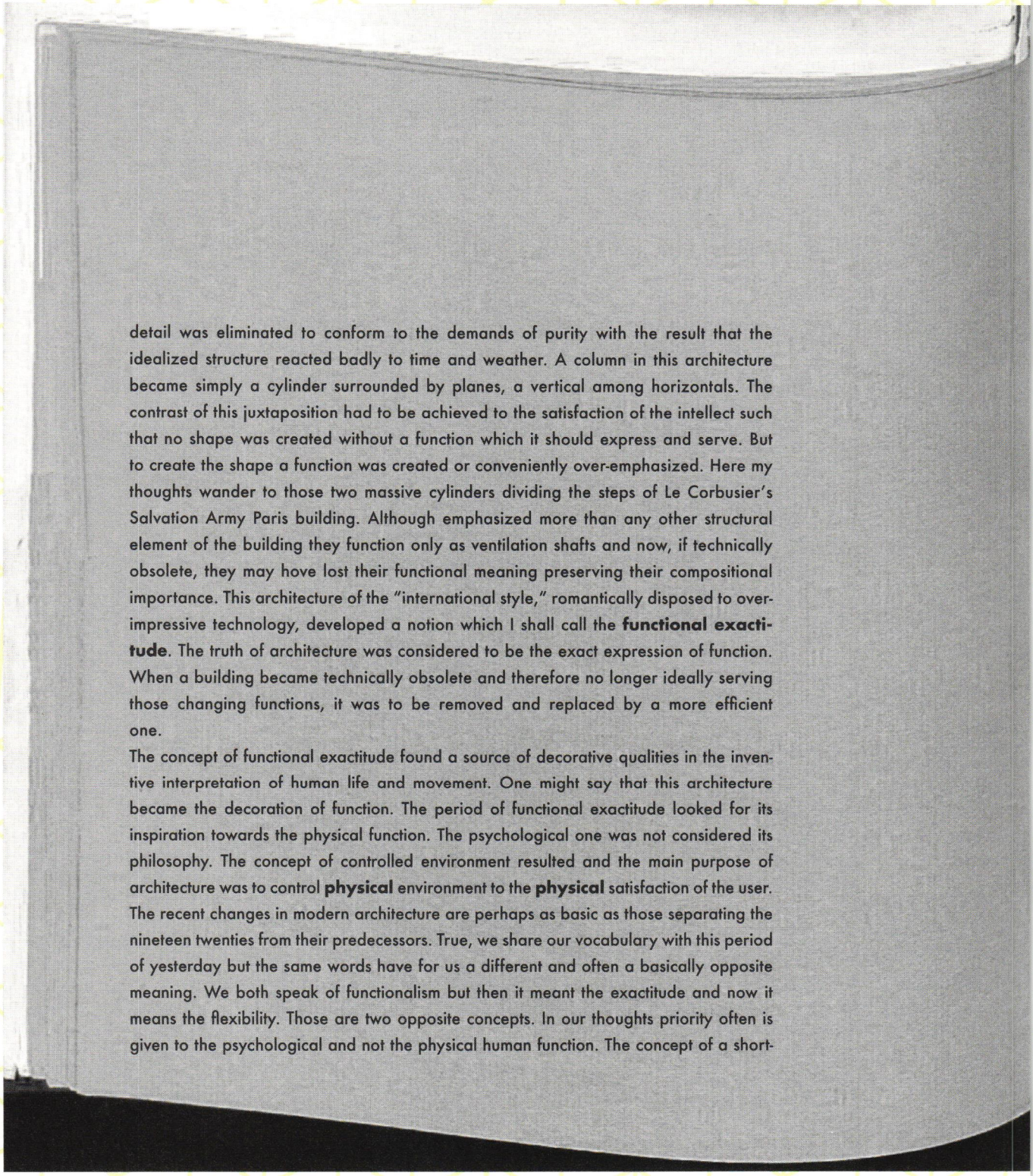


screen probably would have been replaced with a secondary skeleton filling the lace-work with more lacework.

This is the way the gothic skeleton developed with its stained glass window and this was the road explored by Paxton, Labroust, Eiffel and their contemporaries. Modern architecture instead chose a road different in every respect from these expectations. To understand this change of destiny we have to make a digression. Architecture with its social, economic and technical complexities never was in the lead of aesthetic changes. As a rule it followed other media of art. The changes of taste in the nineteenth century, mentioned before, affected architecture very profoundly but they resulted from factors remote to the problems of building or design.

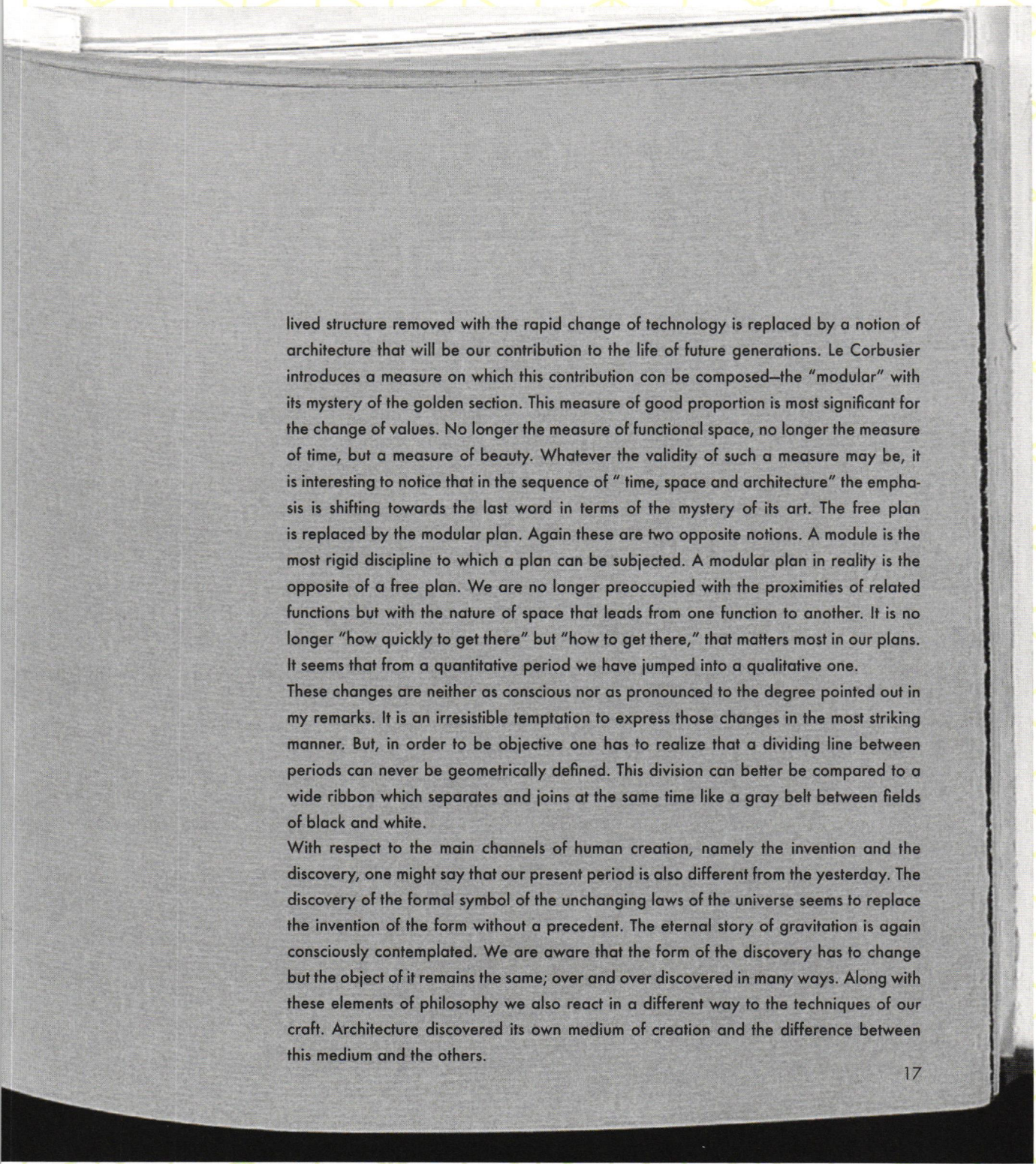
The great change introduced by the Renaissance can be quoted here as a striking example of the same problem. At the rebirth of the classical idiom, the medieval gothic structure reached the climax of Its growth. The further life and growth of this structure was interrupted by on aesthetic wave unrelated to the technics of architecture. No structural competition to the gothic building was offered by the new style. The building methods of the Renaissance were crude when compared to the advanced standard of the medieval mason. The change in architecture followed the changing aesthetic of the period and the responsibility and credit for this change should rest with its men of letters. In this way Petrarch and Dante fathered the architecture of the Renaissance.

A somewhat similar thing happened to modern architecture. This time the change of taste was inspired by the painters and not by the men of letters. The broad and open mamiere of Cezanne, the architectonic painting of synthetic Cubism introduced a new taste for the purity and simplicity of form. The development of the structural skeleton mentioned before could not be molded into the new aesthetic. The problems of structure and materials became secondary in a period preoccupied with the aesthetics of form. One has the impression that for an architect of the early twenties construction was the necessary evil. Architecture became "idealized" and "dematerialized." Colorful planes meeting at the corners of the cube emphasized the lack of material thickness. Structural



detail was eliminated to conform to the demands of purity with the result that the idealized structure reacted badly to time and weather. A column in this architecture became simply a cylinder surrounded by planes, a vertical among horizontals. The contrast of this juxtaposition had to be achieved to the satisfaction of the intellect such that no shape was created without a function which it should express and serve. But to create the shape a function was created or conveniently over-emphasized. Here my thoughts wander to those two massive cylinders dividing the steps of Le Corbusier's Salvation Army Paris building. Although emphasized more than any other structural element of the building they function only as ventilation shafts and now, if technically obsolete, they may hove lost their functional meaning preserving their compositional importance. This architecture of the "international style," romantically disposed to over-impressive technology, developed a notion which I shall call the **functional exactitude**. The truth of architecture was considered to be the exact expression of function. When a building became technically obsolete and therefore no longer ideally serving those changing functions, it was to be removed and replaced by a more efficient one.

The concept of functional exactitude found a source of decorative qualities in the inventive interpretation of human life and movement. One might say that this architecture became the decoration of function. The period of functional exactitude looked for its inspiration towards the physical function. The psychological one was not considered its philosophy. The concept of controlled environment resulted and the main purpose of architecture was to control **physical** environment to the **physical** satisfaction of the user. The recent changes in modern architecture are perhaps as basic as those separating the nineteen twenties from their predecessors. True, we share our vocabulary with this period of yesterday but the same words have for us a different and often a basically opposite meaning. We both speak of functionalism but then it meant the exactitude and now it means the flexibility. Those are two opposite concepts. In our thoughts priority often is given to the psychological and not the physical human function. The concept of a short-



lived structure removed with the rapid change of technology is replaced by a notion of architecture that will be our contribution to the life of future generations. Le Corbusier introduces a measure on which this contribution con be composed–the "modular" with its mystery of the golden section. This measure of good proportion is most significant for the change of values. No longer the measure of functional space, no longer the measure of time, but a measure of beauty. Whatever the validity of such a measure may be, it is interesting to notice that in the sequence of " time, space and architecture" the emphasis is shifting towards the last word in terms of the mystery of its art. The free plan is replaced by the modular plan. Again these are two opposite notions. A module is the most rigid discipline to which a plan can be subjected. A modular plan in reality is the opposite of a free plan. We are no longer preoccupied with the proximities of related functions but with the nature of space that leads from one function to another. It is no longer "how quickly to get there" but "how to get there," that matters most in our plans. It seems that from a quantitative period we have jumped into a qualitative one.

These changes are neither as conscious nor as pronounced to the degree pointed out in my remarks. It is an irresistible temptation to express those changes in the most striking manner. But, in order to be objective one has to realize that a dividing line between periods can never be geometrically defined. This division can better be compared to a wide ribbon which separates and joins at the same time like a gray belt between fields of black and white.

With respect to the main channels of human creation, namely the invention and the discovery, one might say that our present period is also different from the yesterday. The discovery of the formal symbol of the unchanging laws of the universe seems to replace the invention of the form without a precedent. The eternal story of gravitation is again consciously contemplated. We are aware that the form of the discovery has to change but the object of it remains the same; over and over discovered in many ways. Along with these elements of philosophy we also react in a different way to the techniques of our craft. Architecture discovered its own medium of creation and the difference between this medium and the others.

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Picasso writing recently about his "blue period" of 1912 and several years later said that he discovered late the difference between sculpture and painting. Maturity brings a "sense of medium" and mature architecture in the some way discovered the difference between painting and the art of organizing accessible space. As a result we rely in our expression on the potentialities of materials and structure almost picking up the trend of the nineteenth century. This interest in structure and material may disclose within the building medium decorative qualities of ornament much too involved for the purist of yesterday. The symbolic meaning of a support became rediscovered and a steel column is used frankly as a symbol of structure even when it is not part of the structure itself.

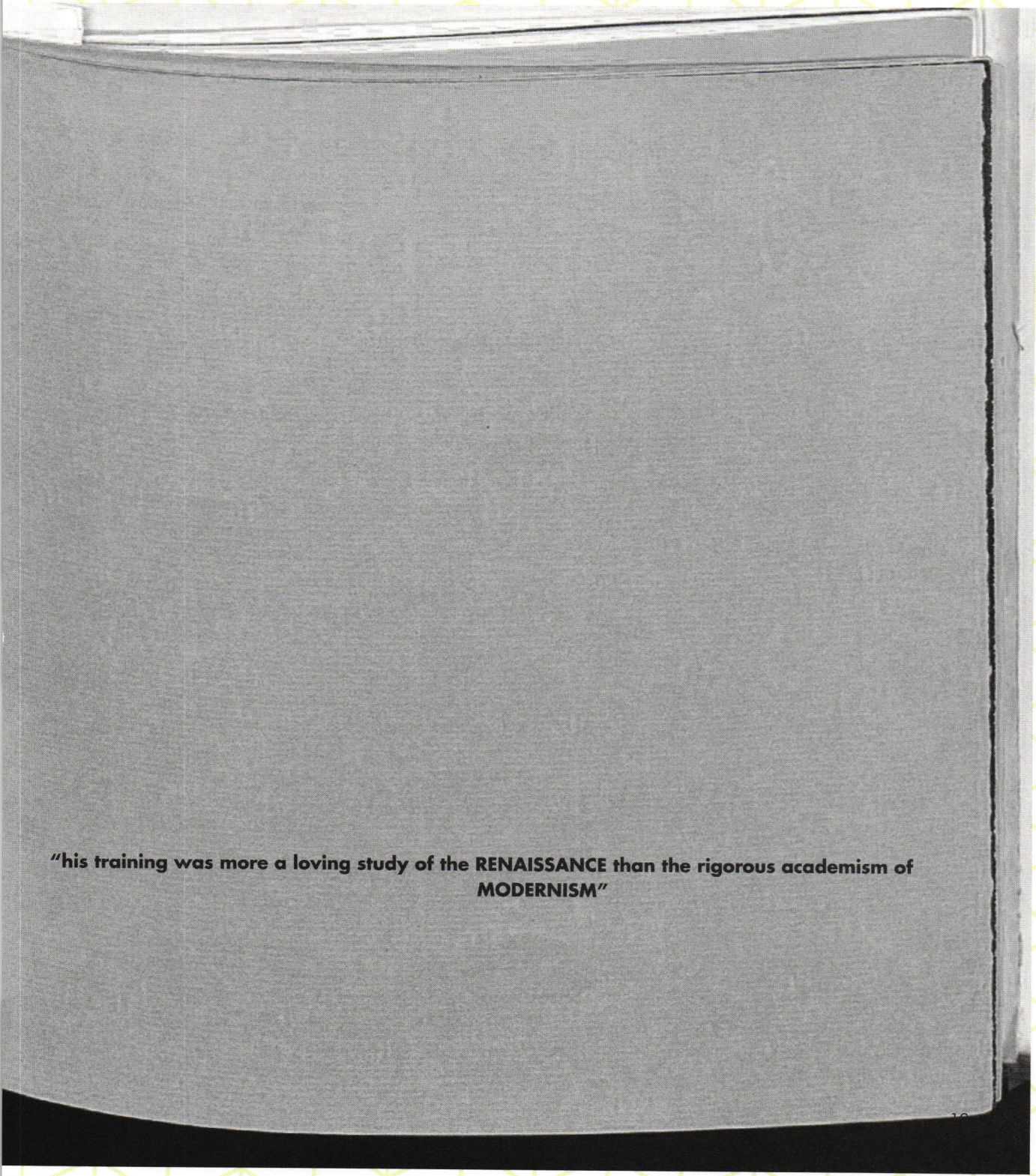
The period of functional exactitude expressed its mysterious longings for ornament in decoration of function.

This period of functional flexibility expresses them in the decoration of structure. Art tends not only to discover the truth but to exaggerate and finally to distort it. **And maybe in this distortion lies the essence of art.**

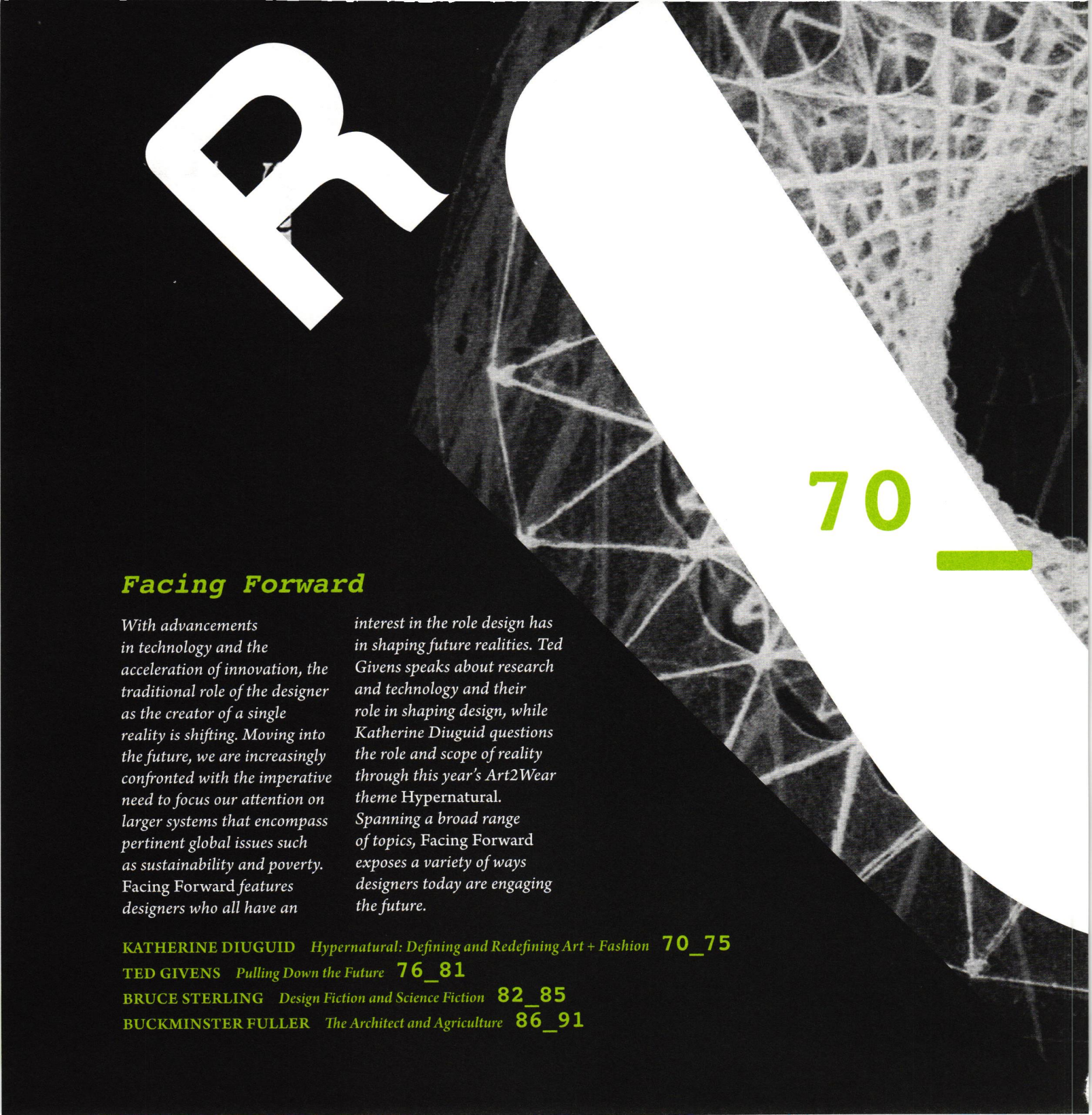
I have described our stage of the modern design as a style. Will this style repeat the sad story of other styles becoming an addition to the repertoire of a future eclecticism? The life and the decline of cultures follows an organic pattern which seems to be inevitable. But the span of life of a culture and its rebirth into another rests in the hands of the people responsible for its creation. Where is the future of modern design?

It seems to me that it depends on the constant effort of approaching every problem with the consciousness that there is no single way of solving it. "Art una-species mille." This battle cry of the Renaissance should be repeated again and again. Art may be but there are a thousand species. We must face the dangers of the crystallizing style negating its existence but trying to enrich its scope by opening new roads for investigation and future refinements.

"Form follows function" no longer satisfies ambitions aroused when form becomes judged for its universal values, but sensitivity to the minute exigencies of life remains the source of creative invention leading through the elimination of "exactitudes" to the more important and more general truth which equals beauty.



"his training was more a loving study of the RENAISSANCE than the rigorous academism of MODERNISM"



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Facing Forward

With advancements in technology and the acceleration of innovation, the traditional role of the designer as the creator of a single reality is shifting. Moving into the future, we are increasingly confronted with the imperative need to focus our attention on larger systems that encompass pertinent global issues such as sustainability and poverty. Facing Forward *features designers who all have an interest in the role design has in shaping future realities. Ted Givens speaks about research and technology and their role in shaping design, while Katherine Diuguid questions the role and scope of reality through this year's Art2Wear theme* Hypernatural. *Spanning a broad range of topics,* Facing Forward *exposes a variety of ways designers today are engaging the future.*

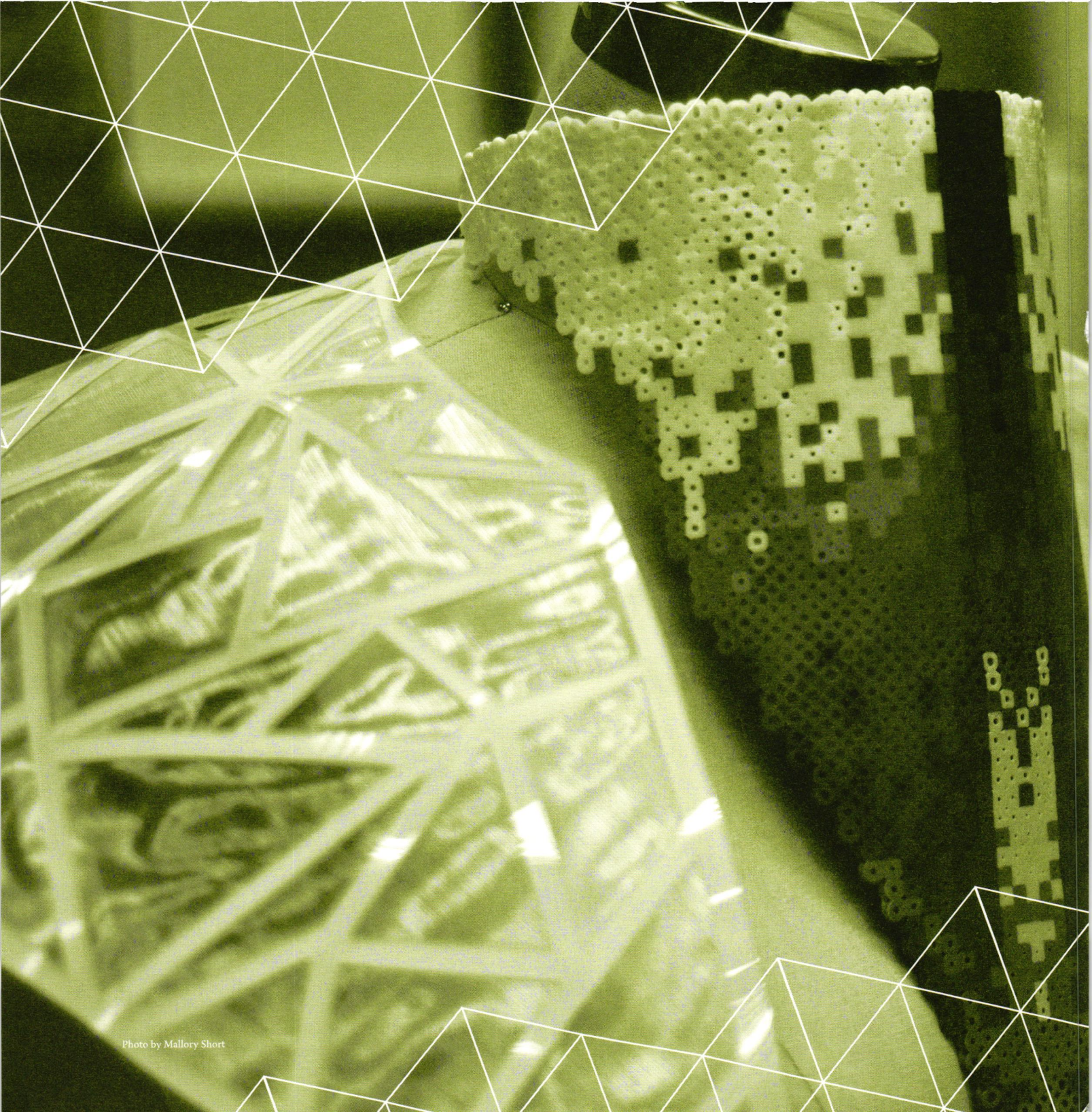
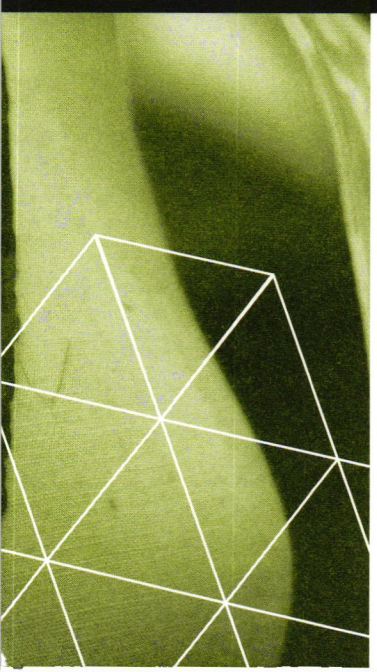


Photo by Mallory Short

Hypernatural: Defining and Redefining Art + Fashion

katherine diuguid

*Katherine Diuguid is an Assistant Professor of Art + Design at North Carolina State University in the Fibers Department. Along with Justin LeBlanc, she is the new faculty chair of Art2Wear. In this new role, Diuguid and LeBlanc have made many changes for the spring 2013 show, including devising the overarching theme—*Hypernatural. *Diuguid writes about this new theme and the future of Art2Wear as an experience in fashion and wearable art.*



Created 12 years ago by Professor Vita Plume and a handful of enthusiastic students wanting to display their wearable art on a runway, Art2Wear has grown into a student-run enterprise that attracts over 4,500 viewers each year for its spring show. As Art2Wear evolves each year to accommodate expansion and growth, the show has moved to larger venues and garnered support from many local businesses and individuals. At its core, Art2Wear serves as a venue for students to push the boundaries of what is considered "fashion" design and opens the dialogue between fashion and sculpture. It serves to ask the question, "Is this fashion or is this art, and why can't it be both?" Does presenting a piece on a body automatically define it as fashion? Does presenting garments on a runway preclude it from being viewed as art? With each collection, the students strive to tell their stories through a small collection of wearable pieces.

Fashion: Our Definition

It is important to define "fashion" when talking about the mission and goals of Art2Wear, and sometimes it is easier first to define what it is not. Fashion is not just a garment-based, money-making industry. It also is not the development of garments that reflect the changing whims of a select few. To view fashion and garments solely as products siphons the life and historical importance out of it.

The items people have worn throughout history have been loaded with social, political and economic subtext and meanings. "Fashion" has defined individual people and eras. In our modern "anything goes" era of dressing, many people no longer have to think about the sumptuary laws (laws that attempt to regulate habits of consumption) that governed what was acceptable to wear depending on a class or role in society. But at the same time, we do not realize how much fashion touches every aspect of society. The real power of fashion is in danger of being trivialized by boxing it into small "What's Hot This Season" packages that focus only on the frivolous surface and take the real power and

meaning away. The danger in this definition is in the potential to remove fashion from art, expression and culture. Rather, I would like to propose this definition of fashion, especially as it relates to Art2Wear and what we are trying to do with this event, as a challenging and provocative cultural force.

Fashion: As a basic human need, a product or sculptural piece that interacts with the body and serves as a body covering, a cultural artifact, an artistic expression, a reflector of society, outward illustration of a person's identity (including but not limited to social class, religion, and ethnicity), starter of revolutions, economic building block.

By utilizing this definition of fashion, we open ourselves to the vast interdisciplinary facets that fashion has always had to offer. We create a richer conversation for our students by exposing them to the depth of meaning that has enshrouded "fashion" since humans began covering themselves. It also starts dialogues with other colleges and departments on our campus that would not be possible if we focused solely on the commodity aspect of garments.

By broadening our definition of "fashion," we open the possibilities of what actual pieces or products the students could create. The body and its complex curves provide a beautiful design challenge as the students consider the body as their canvas and presentation device. They use the constraints of covering the body to create the characters that help tell stories, change perceptions and provoke dialogue.

Theme

The theme of 2013 Art2Wear, *Hypernatural*, presents the question, "Where does reality begin and where does it stop?" In our digital world, many experiences are created to mimic or contort reality. Science and engineering strive to address problems in our society and "perfect" it. What makes something "natural" and what defines it as manmade? How much human interaction is allowed until an item or environment is considered "engineered" instead of "natural"? Most importantly, does how we define the item or environment change its meaning or value? We noticed this was a repeating subtext in many of the seasonal trends. As technology becomes more intrinsically influential to design and to production, the way that we are thinking about what we are designing necessarily shifts. As an organic and innately human endeavor, the intersection of the natural and the manmade provides a unique and fascinating opportunity for designers participating in Art2Wear to unpack both the visual aspects of the theme and how it affects the way that they are thinking about fashion. It encourages them to create their own definition of fashion—something that Art2Wear has always strived to do. It also challenges the students conceptually without making them feel "pinned in" or isolated to designing one specific genre of items.

Through the introduction of this theme, we wanted to challenge the students to rethink their own definition of fashion and design. We wanted to give space for experimentation, risk-taking and for the designers to be able to focus on utilizing their design thinking and processes to synthesize techniques, concepts and materials. By moving to a year-long design and planning process, the adrenaline-infused shotgun reactionary decision-making is limited. Rather, the students have time to conceptualize and develop adequately—both the lines that they are creating and the experience of the event as a showcase of these interpretations.

To fully explore this intersection of the natural and the manmade, a major part of this year's show will be the integration of work by Animation and New Media students. The real possibilities these students hold for incorporating their work as

IMG 01 "Creatures of the Deep" *Sarah Edens & Lindsey Sherrill. Photography: Ben Scott*

IMG 02 "Fractals" *Sarah Kelly. Photography: Ben Scott*

an integral and collaborative part of the show is boundless and will serve to showcase and investigate the real power of fashion and technology—not to mention how this might influence material technologies and surface design. This semester, the undergraduate students will be working with the designers for their Documentary Studio with Pat Fitzgerald and Doug Kass. Graduate students will work with Marc Russo on short animations inspired by the theme of *Hypernatural*. Even the photography of the pieces takes on a surreal and hyper-real quality through augmentation and modeling. The dialogue that the theme provokes filters throughout all facets of the production, and this is something that is really exciting to see. This collaboration will provide a total entertainment experience, and we will challenge the view to consider the theme of Hypernatural not solely in the garments within the show, but the production and experience of the event overall.

A New Year, New Faculty Advisors, New Organization

The challenge of Art2Wear has always been in the balance between the idea of the show and the reality of negotiating all of the various pieces that must ultimately coalesce to create a single experience. There are many designers, models, organizers and supporters that all have individual ideas, processes, and perspectives. This diversity is core to Art2Wear, but also necessitates a strong armature to allow for flexibility without chaos. Creating an organizational framework was key to this endeavor. By talking to a number of previous Student Directors and asking them what aspects benefited the most from being student-led and what aspects required more faculty involvement, we identified the areas of planning that were the most challenging and could be improved. As a result, a number of changes were made to help Art2Wear and the students it represents continue to grow and prosper over the years. With each decision we have made, we first and foremost considered how to help the students create more refined work and how the event itself would display their talent through a cohesive and immersive event. The student-centered aspect of Art2Wear is critical to its success.

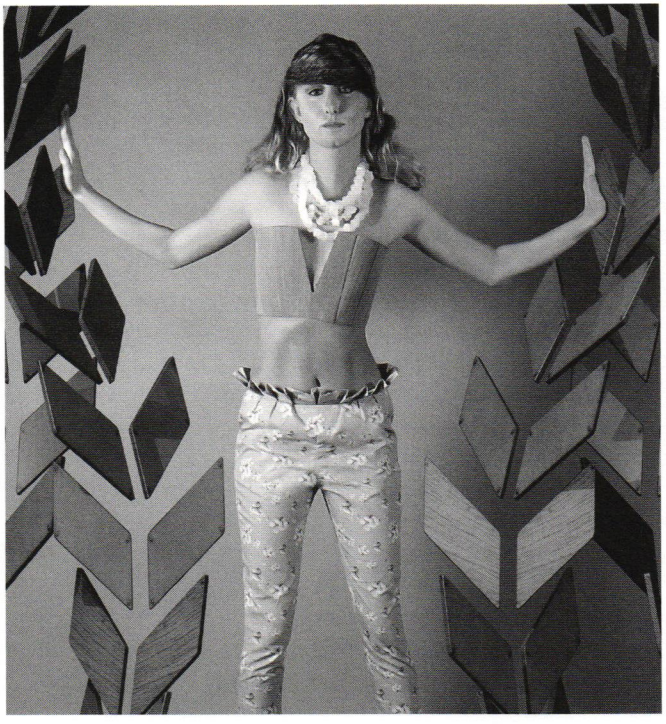
As a result, the organization of Art2Wear was set up to mimic a corporation, with students from different specialties working in conjunction with design students so that each student gains relevant experience in their field and learns to work within a multidisciplinary team. Utilizing a new Board of Advisors from the industry and the design community to guide the show helped provide a link to the professional design community. An organizational chart was created to provide a clear structure for reporting and responsibilities and to help focus students in specific fields to serve in specialized roles. Once the students graduate, most of them will be working in companies where they must work with individuals who are not designers. They will be working with teams of people with different specialties and focuses with a goal of generating the best product possible to market on time and within cost. For this reason, it was important that Art2Wear reflect a multi-disciplinary work module, as to bring the maximum real world learning opportunity to the organization and to the students. By allowing the designers to focus on designing, the business majors to focus on marketing and public relations, and so forth, we enable the students to focus their time and energy on the aspects they are most driven to act on.

New Events

As we celebrate our 12th year, two new events were developed on the Art2Wear calendar—an Art2Wear Lecture Series and the Art2Wear VIP Backstage Reception. These events have been added to create a richer experience for the students and the College of Design (and greater design) community by gaining more exposure among industry professionals. In the most straightforward way, the lectures create networking opportunities

IMG 03 "Subcultures" *Brittney Tabron. Photography: Ben Scott*

IMG 04 "Wood and Cotton" *Sarah Cannon. Photography: Ben Scott*



for the students, but they also provoke students to see the diversity of perspectives that exist in the field as a way to position and define their own approach. These events create a connection to the professional design community and draw on the extensive knowledge within this community, exposing students to current industry perspectives.

The Art2Wear Lecture series is a wonderful opportunity for students to gain access to professionals in many fields that touch the fashion industry. We have a number of professionals that have graciously volunteered their time to present presentations via Skype or in person to share their experiences within the design industry. Field leaders like Kate Ancketill of GDR Creative, Tim Allen, Rachel Chow of Speedo, and Natalie Chanin of Alabama Chanin create and redefine a more rounded vision of fashion within our educational community.

The Art2Wear VIP Backstage Reception will be held immediately following the Runway Show. It will complement the Runway Show by allowing the pieces to be viewed much closer and in a mixture of "in movement" and static poses. This will allow guests to see the details that were previously not visible due to the distance from the runway. It will also provide the designers an opportunity to speak to guests about their designs and concepts, ideally provoking a dialogue and helping to reframe the language of fashion in an intimate way.

As the event and the program surrounding the event continue to grow, we hope that they will provoke a campus-wide conversation that uses the medium of fashion as a springboard to create exciting collaborations and discussions. ▪


drawn to the very edge of what is possible

Pulling Down the Future

ted givens

Ted Givens is a visionary, award-winning architect and founding partner at Hong Kong-based firm 10 Design. Conceived as an environment that would allow for an intense focus on design and research, Givens writes about how rough visionary thoughts move into reality—tied to client and context.

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As a designer, I often find myself drawn to the very edge of what is possible. Actually, I have always hovered close to that thin boundary even as a student and have no real desire to move away from it. There is an ever-present, clearly defined block of reason defining what is impossible. That weight of impossibility is filled with an unlimited series of excuses and can be quite exhausting, but with a small shift in logic and a slightly subversive attitude, the future can be brought into reality and carved into tangible substance. At 10, we use research as a mechanism to help pull abstract thoughts into reality. What often starts as a vaporous idea inevitably finds a firm seat in reason. We examine and explore alternate concepts in parallel with our projects.

I have recently been exploring and developing the concept of "Beyond Neutrality" as a core concept for design and architecture. The idea centers on the notion that newly created buildings must go beyond themselves through acts of supererogation* to help tackle the dearth of ineffective systems and existing construction. Buildings have to be more than neutral, taking an active stance engaging their surroundings. Tied to this idea of *beyond neutrality* is a focus on context, in particular in relation to the probability of natural disaster. Buildings are often clogged into floodplains and high-risk areas making them all the more prone to damage and unnecessary destruction. The most salient victims of improper development are the urban poor. It is our hope that some of the concepts we are developing can first be implemented at the lowest income levels to form a trickle up cycle. Often what we are trying to describe or explore is at the edge of what is possible. There are a flood of new technological ideas that will help shift the balance towards a more ecologically responsible architecture. However, a certain amount of caution must be tied in with this technological innovation. A blind faith in technology is an invitation for disappointment and unexpected complications. We try to balance the mutually "liberating and enslaving" aspects of technological progress with an equal focus on simple tested passive solar ideas.

*going above and beyond what is defined for the project

IMG 01 Galaxy Yabao project in Shenzhen China designed by 10 Design.

And so the research becomes a place where we can investigate ideas of superogation and *beyond neutrality* in a collaborative and practical way. In this way it also becomes a balance between site, technology, and culture. At 10, we use a collaborative design approach to explore ideas involving a vibrant mixture of architects, scientists, students, artists, and engineers. Ideas can be sparked by a new technology, a current project brief, or a random conversation. To increase the frequency of dynamic exchanges of ideas we host a number of events in our office. Every four months we hold an art exhibit in the office. We have recently been giving a series of lectures on the topic from Shanghai to Brazil. The lectures provide a great mechanism for sharing ideas with like-minded thinkers and other architects.

We try to leave the creative gates open as long as we can to see what drifts out of the unintelligible mass of raw ideas. Often when we start a new research project we have very little idea about how the concepts work or if they are even possible. But once you start to apply a rational approach and precision, most ideas turn out to be quite logical. For example, we are designing a series of sculptures along a bridge in Chengdu that are designed to clean the air and will be run by kinetic energy. The sculptures are tensile clad objects covered in a series of photocatalytic nano-coatings and filled with a layer of carbon nano-tubes to purify the air of bacteria, pollution, and dust. Since the cleaning reaction is photocatalytic, triggered by light, there are a set of UV lights that turn on at night keeping the air cleaning reaction happening 24 hours a day. A set of kinetic strips in the road will power the lights so the entire system is off the grid. We are currently in the SD development phase of the project, but the original ideas came directly out of the intersection of several research projects. As we developed the research project, we connected with a series of scientists and manufacturers who helped us implement the ideas. Sometimes we find there are existing solutions to what we are trying to achieve and occasionally we realize what we need does not yet exist. We are starting to develop some of our own sustainable products with a set of researchers in Asia.

Another project that grew directly out of our research is a new 550,000 square meter university master plan south of Xiamen, China. We are currently designing 11 of the campus buildings that will finish phases 1 and 2 of construction early next year with an additional 20 buildings to follow in phase 3. By this time next year there will be 3000 students on campus. The campus is

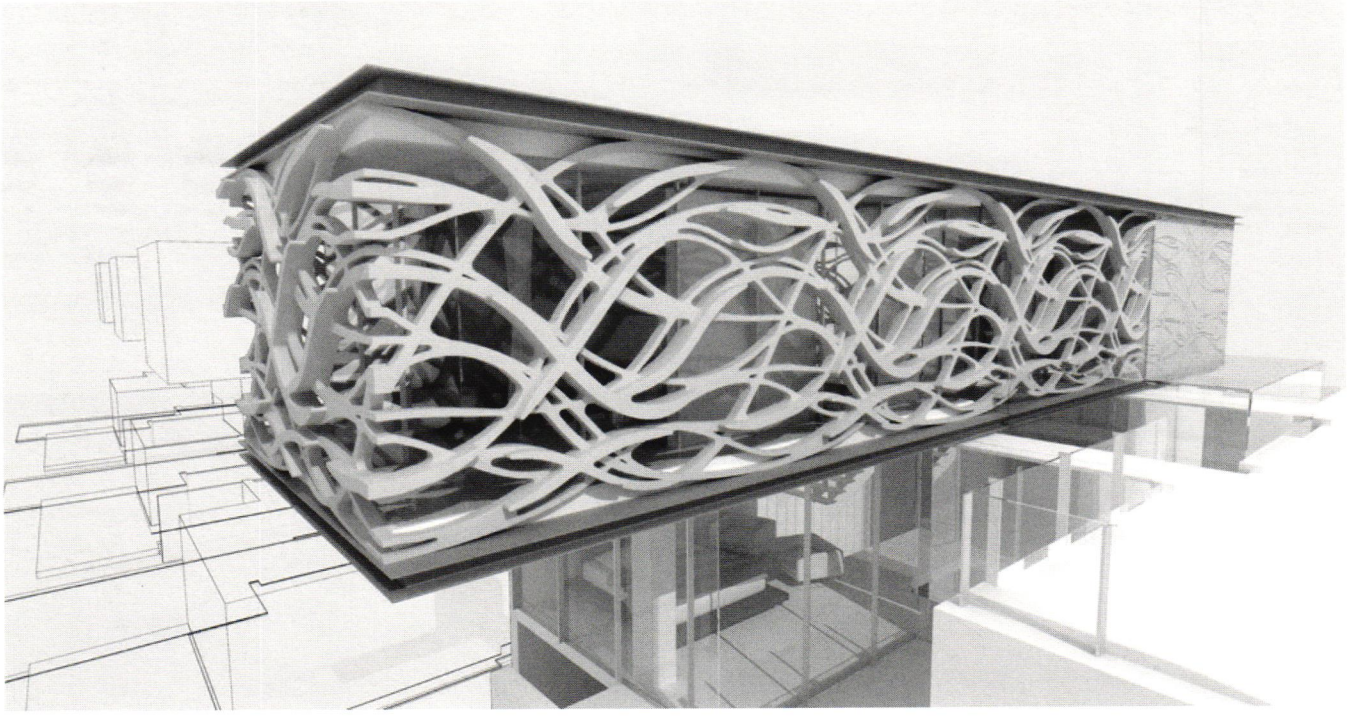
IMG 02 The Fujian Professional Photonic Technical College designed by 10 Design, Anticipated completion by 2013, Client: Ching Fu Group

bound by an assortment of new ideas ranging from self-healing concrete to memory alloys. The university is intended to be a regional showcase for new sustainable technologies. We are utilizing the same nano-coatings from the Chengdu sculptures to neutralize air-pollution on both the facades and under UV lights inside the below grade parking structures. We are working with a company based out of Manila to test the coatings. What attracted the client to 10 in the first place was research we were conducting on algae air filtration systems. The campus administration building will test using algae tubes to purify air in below grade parking structures. One square meter of algae can produce as much oxygen as 100 square meters of mature forest. In addition to producing oxygen, protein is created that can be used for organic fertilizer. The campus is set in a beautiful natural setting that is connected by three rivers. All the rivers are preserved and set the basic campus diagram. The result is a radial campus plan defined by nature infused new innovation green concepts and advanced technology.

An outgrowth of the campus plan is an architecture studio I am teaching at HKU. The studio is designing a sustainable HQ building for the shipping building company that is the client for our Xiamen University. The HKU studio focuses on sustainable research and the students' projects are required to produce their own energy and clean either the air or water. We are working with a knowledge transfer network in the UK to help identify new technologies ranging from graphene purification membranes to using salt as a structural element. The studios provide an open-ended chance to tackle new ideas. Both the students and our office benefit from the creative exchange. I am still wrestling with a project I started back in my graduate studies at Sci-ARC for the design of a tornado-proof house. After 10 years and multiple versions of the project, we are currently talking with our shipping company about building a prototype on a farm in the US. The idea for the project was to make use of natural forces and treat storms and forces of nature as probabilities, not accidents. Some of the HKU students are taking up the same disaster proof concepts and are testing using typhoons as a source of power.

Tied to education, last year 10 sponsored a competition called "Re-Thinking Shanghai" with a global group of sponsors including NCSU, University of Kentucky, HKU, Tongji, Technical University of Sydney and publishers such as Evolo and Mark to help push a sustainable dialog in China. The competition was for

IMG 03 India House designed by 10 Design.

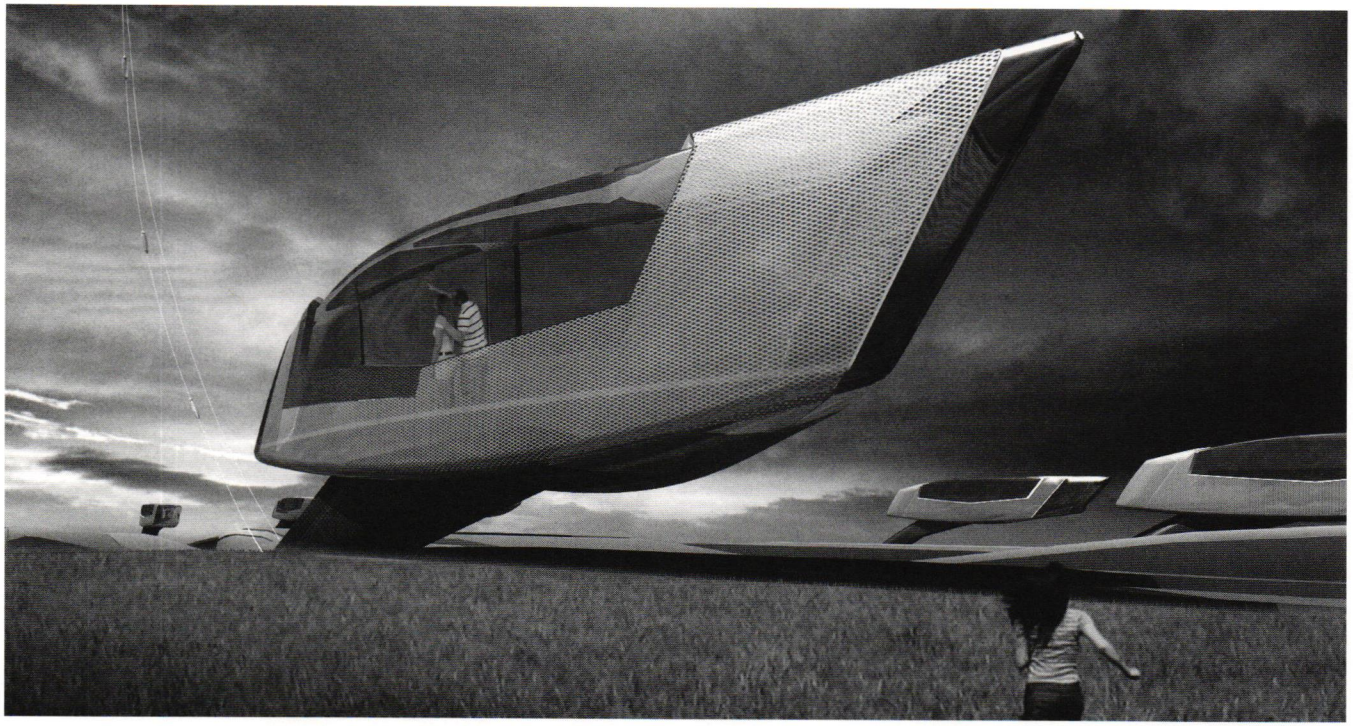


a sustainable intervention along the Suzhou Creek. We chose to locate the competition in China because there would be a strong interest from the government and a good chance that some of the ideas would be implemented. About 1300 people registered for the competition from over 100 countries. There were over 200 entries with a dynamic range of solutions. The competition proved to be a great mechanism to strike up a debate about sustainable concepts. There was a design charrette with the Hong Kong AIA the day after the awards ceremony that brought together a group of over 300 government officials, developers, architects, and students to test implementing some of the ideas on a real site being developed in Shanghai. The best conversation was with a university professor who was certain all of the ideas were utterly impossible. After a long debate we asked him how he would have responded if he had been asked 100 years ago if metal boxes would be flying through the air? He then agreed all the ideas would be possible within 100 years. We find ourselves engaged in interesting conversations all the time. Another memorable moment was with a Hong Kong developer that would use the air cleaning technologies if we could quantify that we would only be cleaning the air for his building. We are trying to shift away from this outmoded attitude and highlight that we are all in this together.

A project we are just starting is for a famine resistant house. The idea was sparked after a recent lecture at USP and at NUTAU 2012 in Sao Paulo Brazil. One area that has been in the news recently due to a number of killings, Paraisopolis, was a key point of inspiration. It's hard to imagine 160,000 people living on top of each other in self-made huts directly beside luxury residential towers. The most powerful and striking image of the trip was a new road sitting in between a beautiful and spacious green cemetery on one side and the dust covered burning slum housing on the other. There is something a bit off when the dead have better housing than the living. The goals for the house are for it to purify air, water and waste, produce food, resist natural disaster, and grow itself over a very thin titanium-infused steel frame.

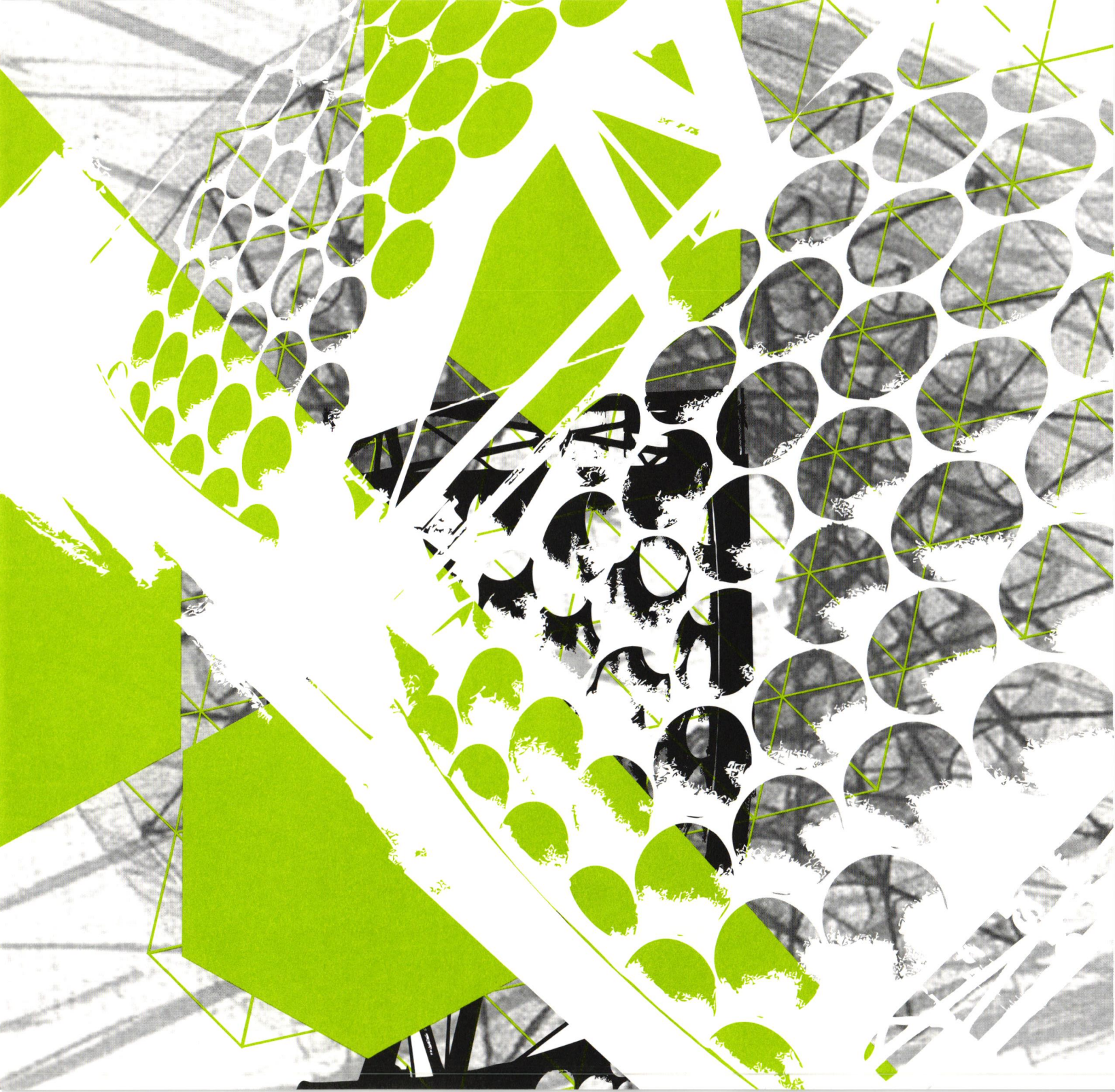
A large number of sustainable concepts and technologies are much closer to actualization than anyone realizes. There is a revolutionizing set of ideas on the verge of release. But due to intensive research necessary in the development of these new products and technologies and the clients general unwillingness to pay for it, the fundamental issue slowing the arrival of these new ideas is the expense.

IMG 04 Tornado House designed by 10 Design.
Rendering by Trey Tyler



As designers, bridging this gap through our own investment and implementation is the key. One of our goals should be to help bring these ideas to fruition through research, built work, and active community dialog and conversation.

Best to end with a quote from my most influential NCSU professor, Dr. John Reuer's favorite book by Le Corbusier, *When the Cathedrals Were White*,"In short, a battle is raging and no stabilizing treaty is in sight. One foot is stuck in the thick clay of the past looked upon as a reassuring truth, the other foot is in the air, looking for a place and way to set itself down" (LeCorbusier, 1947). ▪



Design Fiction and Science Fiction

bruce sterling

Bruce Sterling is a well-known science fiction author, blogger and organizer who helped define the Cyberpunk movement. Sterling is well known for his neologisms, some of which, like slipstream, have been incorporated into our common lexicon. In 2005, Sterling became "visionary in residence" at the Art Center College of Design in Pasadena, California, and in September 2007 he moved to Turin, Italy. He also travels the world extensively giving speeches and attending conferences. Sterling's humorous and insightful essay focuses on the attraction and pitfalls of design fiction.

I'm a science fiction writer, and I admire design because of its differences from my own craft. Design is attentive to the user and engaged with the grain of the material. Science fiction doesn't have any "users." Being fiction, it has an audience. The grain of the material is a major stumbling block in science fiction's native pop metaphysics. So design does certain useful things that science fiction can't.

Try asking specific, detailed, practical questions about a transcendent wonderment. It's like salting a snail—the science fiction genre will instantly recoil into its stony house of subculture. How does a great sci-fi wonderment integrate itself into the texture of daily life? How is it used, maintained, manufactured, stored, shipped, and scrapped? Nothing pops the space-balloon of "cognitive estrangement" quite like figuring out its business model.

Why would anybody spend a lot of time carefully designing objects and services that don't yet exist—or that can't possibly exist? There are niches where this activity has gone on for years now—props in science fiction movies, especially the so-called "diegetic prototype"—but they're just props. They're generally there to dress up a set, like the costumes do. They affect reality about as often as a movie costume becomes a real-life fashion fad. That is to say, sometimes, but not on purpose.

Design fiction has some purpose. As "fiction" goes, "Design fiction" isn't all that entertaining. It doesn't narrate and it doesn't have plots, dramatic conflicts, a narrative arc, a climax or a denouement. "Design fiction" that's too funny, too entertaining, isn't design; it's all sizzle, no sausage.

As a form of entertainment, design fiction's worst weakness is that design isn't fiction, and therefore lacks a natural audience. Design has users, not viewers. Who'd watch a movie consisting entirely of props? That's just not "cinema."

As science fiction has grown older, this has become quite a large technosocial arena—the ever-growing world of the formerly-imagined.

Design fictions lack an accepted way of introducing themselves to interested people—the design-fiction shelf at the bookstore, the design-fiction room in the gallery. These showcases don't as yet exist. So design fictions commonly appear without an invite as jokes, parodies, pranks, provocations, interventions, or mute critiques. Their largest medium to date has been Internet videos, where they scrape out an unpaid existence among the cat jokes.

If they are too convincing, then design fictions become hoaxes, wicked deceits, acts of cruelty by fraudsters. At the other extreme, if they're blatantly absurd, then they seem like trained ingenuity perversely wasted on thin air.

So, it's indeed a dodgy territory. However, so is the landscape between science fiction and "things that are no longer science fiction." As science fiction has grown older, this has become quite a large technosocial arena—the ever-growing world of the formerly-imagined.

Objects and services drift out of the lab and into public view all the time. Nobody is in charge of this perilous transition, from the formerly-visionary to the everyday here and now. Nobody has the duty of removing the bubblepack of sci-fi wonderment. There's no check-list for de-fictionalizing a real thing. There's no coming-of-age ceremony where we can say that a speculative product has matured and become an everyday citizen of our material reality.

Design fiction is one area where one can deliberately play with this large and interesting problem. You can do something about it—make something that lives there. "Design is a method of action," as Charles Eames used to say. Design fiction isn't storytelling, it's an activity.

A science fiction story written by five authors is a farrago. However, a design-fictional object visibly improves when it's created by a multidisciplinary team. Design fiction brainstorming can be a very illuminating workshop experience even when no designed object results. To create a design fiction is to engage in a strategy session. It's a constructive discussion of constraints and possibilities. The most brilliant design fiction objects live right on the membrane of possibility, skating along gracefully on the tension of disbelief, like water-striders.

Authorial fantasies are private dreams deliberately published but the boundaries between conjectural and actual belong to everyone. What's far out, what's hype, what's real?

Those boundaries are socially constructed, as anyone who's ever lost a patent lawsuit can tell you. Alexander Graham Bell invented the telephone. Bell spent years in court proving that fact repeatedly, and yet is still challenged about it. Furthermore, when people say the word "phone," now they generally mean a mobile lozenge in their pocket—a digital device with only the most tenuous, historical connection to the Bell wire-and-diaphragm contraption. So where's the "real" phone? The real phone isn't a patent drawing, it's a consensus.

Objects and services are inherently unstable. They evolve and decline, they slip in and out of existence. Whole systems of production, like Communism, can crash and be composted, carrying hosts of their material objects into the dustbin of history. Material culture is surrounded by twilight zones. Design fiction is a way of acknowledging that and grappling with it directly.

So, why do it? Well, why not do it? Design fiction is a way to probe reality. What is reality and how do we distinguish it from the unreal? What is becoming real, and what has ceased to be? There's

nothing new under the sun, and yet every morning is an unforeseeable adventure. Reality is both banal and a profound mystery. There's infinity in a grain of sand, but nobody sitting in a sandbox experiences a billion infinities.

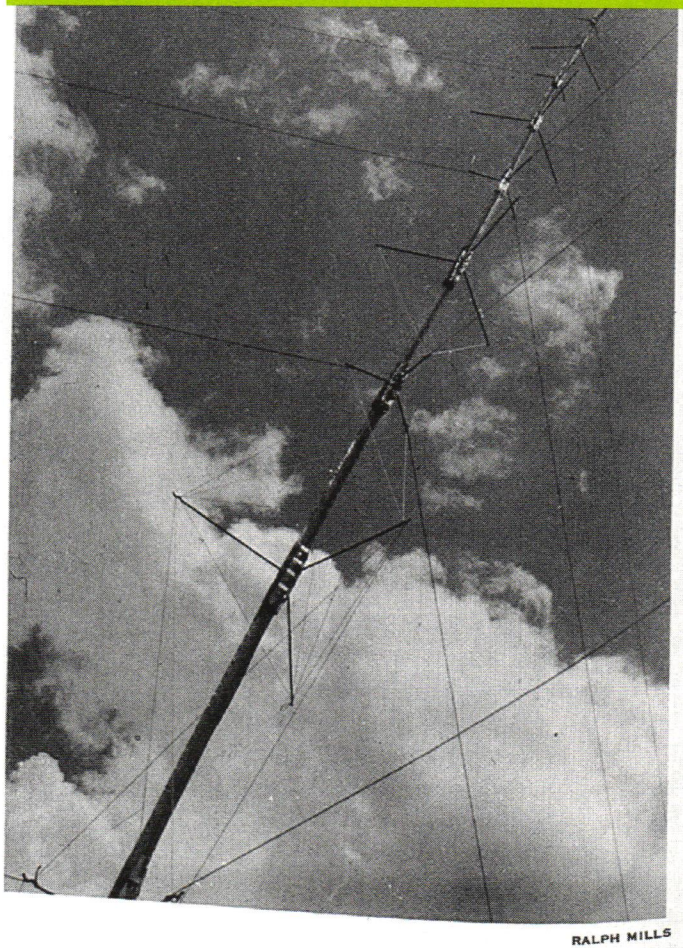
I'm a science fiction writer, so I'm used to these figure-ground paradoxes. They don't alarm me. I enjoy exploring them, experimenting with them, but an "experiment" needs some rigor and a methodology. Lazy speculation doesn't stretch the mind. Design fiction is a method of action. It's a way to bring back coherent results, share them, show them around, learn more, try better next time. It's a near future laboratory, not just a sci-fi rumpus room of hand-waving metaphysics.

My creative life is all about the elasticity of this territory. I like the arenas where the real and the unreal blend in unplannable ways; I like the fact that we lack absolutes, that our credulity is a slider bar.

Today, we're in a world where prototypes are easy to publicize; we're in a world where old boundaries between conjectural and actual are visibly breaking down; we're in a world where our progressives are fearful conservatives, while our conservatives are frothing radicals. That's how things are these days. I find that design fiction helps me in such a world. It orients me, it gives me a nifty set of rungs and pitons. Design fiction improves my life.

In the darkened haze of futurity, it's a place to camp and eat a watermelon. ▪

Buckminster Fuller was an internationally acclaimed architect and systems theorist. His concepts and ideas on architecture were influential in the early development of the College of Design at NCSU, involving students and professors in the development of his geodesic dome, the most famous of his architectural contributions. This article first appeared in Volume 3, dealing with the subject of changing agricultural technology and the role that architecture could play in agriculture.



RALPH MILLS

PROJECT FOR NORTH CAROLINA STATE COLLEGE
BY R. B. FULLER — 4 WEEKS SEMINAR

The Architect and Agriculture

When we enquire whether we may expand the function of the architect beyond his popularly recognized tasks, we are immediately confronted with the fact that his tasks have been essentially urban and suburban. Less than one per cent of America's farm building has been designed by architects. Despite the dramatic bulking of city to the human eye, the American farm building constituted, until very recently, by far the largest portion of America's building. It is unfair to the contemporary student of architecture to conclude that he is inherently excluded from structures simply because architects of recent generations have been held to function only in superficial, ornate and luxurious ways. There is an increasing acceleration of architectural penetration into the remote places. Smart glass box dwellings appear with increasing frequency in unexpectedly remote places.

This appearance is essentially an expansion of urban and suburbanism and its luxurious standards to serve urbanites in their retirement, vacationing or their secondary vocational indulgence (rich business gentlemen farmers). Present generation farmers' children return from college importing to the farm their own modern design adaptations for the new house not far from the old folks' farm house. This too is borrowed urbanism. The fact remains that except in less than one per cent of cases, farmers do not call on architects to help them plan their primary structural facilities. The farmer has been aided by the professional designers—but this professional was the engineer. The engineer was not usually employed directly by the farmer. He was employed by industry or county, state or federal government. The engineers worked not in the terms of any

one individual and the latter's idiosyncracies, ignorance and emotional deficiency patterns, as the architect has been forced to do as a consequence of direct personal patronage of his profession. The engineer designed apparatus in the terms of scientifically acquired (instrument measured) data, governing the special complex of events. characterizing the seasonal, geographical, biological, etc., differences in agricultural functions. Engineers thus came to gestate an unprecedented regenerative evolution of farm tools. Performance per man hour, continually amplified in all measurable directions of involved quantities and qualities. The conversion of natural energy income and inventory into man-preferred metabolic patterns has always constituted No. 1 function in the spontaneous priority schedule of the farmer. He didn't say it that way. He didn't have much use for words. His work tended to keep him remote from his fellow men and suspicious of unfamiliar vocabularies. Despite the engineering augmentation of his abilities—the farmer did not soon prosper. He led the chain reaction bankruptcy of 1928, when, overloaded with mortgaged capital investment in the new machinery, too large a proportion of the swelling metabolic increment of the new machinery was syphoning off through interest rates and service charges to pay for an expanding urban banking facility. Too little was known by the debt servicing farmer of the 20's regarding the complementary augmentations that could be had by large scale design mutations,—such as irrigation, flood control, water shed pooling, top soil immobilization by shelter belt growths, etc.—which valved patterns of dynamic nature to serve him with an increasingly favorable environment for his metabolic harvesting and which, unattended, had continually frustrated him in progressive waves of "hard luck" events as his new machinery involved him in ever larger patterns, the ramifications of which he was utterly ignorant. Engineers on government, state and county payrolls, whose functions related inherently to the larger patterns of resource conservation, came to his aid as the fundamental energy harvesting function essential to man's survival was reestablished.

Characteristic of the recovered agricultural equilibrium pattern throughout the late 1930s, '40s, was the picture of the farmscape nuclear grouping of structures and apparatus. Prominent in the nuclear grouping were the tools of planting, cultivating, harvesting, and distribution convoy. Large and sound barns, silos, corncribs, galvanized or aluminum grain bins, poked up above the skyline of the orchards and shade trees. The nuclear group of buildings were randomly interspersed with large insective shaped portable machines —too large to be afforded expensively housed space, accorded only the metabolic increments. Oldest and least impressive unit of the farm nucleus was and is the dwelling, so obsolete in standards as to be clearly datable as earlier than the vintage of the machinery, harvest, husbandry buildings—almost always, even now, the privy or privies 25 yards from the back door. Clearly written is the fact that the original dwelling was the bridgehead shield that made possible the presence of the farmer at the heart of the required remoteness of the acreage essential to the increment involvement minima of the increasing dependance upon the in-

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dustrialization gamut of function augmenting facilities. This acreage minima has continually advanced in the last 20 years so that, though millions more acres have been put under farming through the U.S.A., there are a million less farms now operating. This means that the same kind of merging that took place in the industrial city's corporate structures throughout the '20s and '30s was coming to characterize the economic pattern of the basic energy income harvesting of the farm. This is to say that industrialization itself which is the principle of synergy (behavior of the whole unpredicted by the behavior of any of the parts) is spreading throughout the land requiring a science strategied team work operation in shunting the energy income into a world wide distributive pattern.

With this evolution, certain changes are discernable as we enter the first years of the second half of the twentieth century. Most physically notable is the disappearance from the apple orchard and farm yard of the recumbent insective machinery that could only be used by any one farmer for small percentages of the days of the year and whose unprotected recumbent days involved accelerating deterioration by the chemical processes of unanticipated inexorable energy events of nature. As one now speeds over the farm linking super highways of the west, at average traffic cruising velocity of one mile per minute, the student of evolving pattern will note that most of that formerly recumbent machinery may now be rediscovered, as yet recumbent, but dozing between high frequency employment, on the platforms of trucks comprising army-like caravans manned by new generation enterprisers. The new dynamic pattern is one in which large mergers of farm areas are scientifically pattern rotated and conserved and are mechanized only by the tools which have sufficient employment to warrant their inhibition into the farm nucleus. The dynamically evoluting geographical pattern is constant, relative to which the accelerated mobilization of the large seasonally employed tools is variably applied. The machinery can follow the discernable geographical motion of the thermal latitudes and is temporarily augmented in its functioning by migrant harvest workers. The migrant workers will be inevitably displaced by mechanical harvesting into the metabolic stabilization channels of deep freezing, etc. as the new mobile machinery enterprise begins to demonstrate what the minimum frequency of use levels are which characterize break-even point between energy increment loss and gain. As these new control magnitudes of the dynamic processes become discernable, science and technology will become accredited, which will close the gap between the mechanical interludes, ever less effectively serviced by manual operation.

It is interesting to note that, though the philosophy of economics and government which control the lands of North America and Russia are avowedly, on both sides, in diametric opposition, the evolutionary pattern of man's fundamental dealing with nature has been unwittingly congruent in both lands. Entirely remote reporting intelligence services give unwittingly identical disclosures of the evolution, in both lands, of the merging of farm groups into new and larger scientifically managed patterns—whose high point, seasonal

functions are serviced by entirely separate personnel, moving in two differentiated groups of a) machining caravans, b) gangs of fortuitous manual task servers. This whole served by a vast high speed communication network of highwayed, bywayed, piped, wired and wireless broadcast and beamed acceleratingly energized and valved communication.

It is semantically notable that the large part played in all this energy shunting and valving evolution, by engineering, in contradistinction to the secondary superficial luxury role played by architecture, is evidenced by the fact that function "engineer" as subjective identity has an objective verb form "engineering" which may modify any special category of differentiated man tasks, whereas the subjective identity architect has only a noun form in its objective identity "architecture."

Whereas we can speak of agricultural engineering and thus conjure up a myriad of potential investigations and teleologic investigations, when we say agricultural architecture we conjure up only a review of the conscious or unconscious superficial aspects of what has been rather than what may be. We recoil spontaneously, and charge it to aesthetics, against such word invention as "architecturizing" which inherently connotes superficial tampering. Identity of the scope of the function of "architect" had, during the last half millenium, shrunk, not because of inherent limits of the function itself, but because in a large historical wave pattern it had come to be identified with the more visible aspects and results and celebrations of man's first meager victories informed shunting of inexorably dynamic energy universe into man valuable patterns of magnitudes and frequencies modularly synchronous with evolutingly favorable periodicities and magnitudes modularly characterizing and expandingly integrated and identifiable patterns of responsibly initiated man regenerative function in universe.

The two word description of the function architect-comprehensive designing—which clearly identifies his function as broad energy and knowledge resource integrator in contradistinction to the differentiatingly effective specialized functions most dramatically emphasized in contemporary historical reporting and analysis was therefore fortuitously promoted for the purpose of regaining awareness of the inherently broad function of "architect."

Comprehensive designing applied to the farm pattern takes cognizance of discernable potentials now emergent as the kaleidescopic seasonal geographic and energy patterns of yesterday are shaken away and displaced by new magnitudes, new periodicities and new associations. The modulation of the economic scheduling of increment wage distribution is evidenced in industrial trends which anticipate total life pattern involvements of the individual both as producer and consumer wherein daily and weekly and employment and employer worker involvement trends to larger inherent associative considerations involving annual and lifetime emphasis. Seemingly unreasonable hourly rates of specialists as craftsmen, tend to level off at higher

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overall standards as the crafts are inhibited within the dynamic network of industrialization. Here the differentiable tasks multiply in astronomical number as they are taken over by mechanical functioning as the task-disassociated individual emerges as a whole man again,—as a comprehensive operator of an increasingly wide variety of more controlable tasks inhibited into the mechanical complex.

Comprehensive designing discerns, for instance, that field rotation of farm land in poly-annual rather than annual cycles can be effected by geometrical controls. In the habitual preindustrial farm pattern, the brown and green chequerboard of quadrangular fallow and cultivated fields, it seemed expedient to employ every inch of the active field. To comprehensive designing it has been discernable for the last quarter century that it would be far more effective to triangulate all arable land, by installing, at laterally equidistant points at the vertexes of such a triangular grid, a pattern of adapter bases to receive vertical mechanical assemblies in the form of masts and booms. These being mechanically rotated, the circular tangential pattern would be terraced, relative to respective bases by the boom action. The land would be tilled, cultivated and harvested by the progressive mechanical functions of the booms while the mast structures would support appropriate energetic environment control means such as silos, reflectors, water channelings, atmospheric condensers, etc. The triangular base patterns would employ annually alternate vertexes, leaving fallow or in rotational cover alternate intercircle spaces and thus provide greatly accented and augmented efficiency and conservation.

A host of potentials of comprehensive designing thus applied to industrializing agriculture, bring into prominence the expanding potentials of the renascent function architect discover that the delimiting is brought about by discard of the primary assumption of broad man patronage of a scientifically competent anticipation of the family of factors systematically characterizing general and subpattern evolution and design integration.

The co-existence at Raleigh of North Carolina State College's Department of Agricultural Engineering and Department of Architecture constitutes a stimulating challenge to the initiative of the architect.
The project which I will conduct from January 19 to February 14 at the North Carolina State College, Department of Architecture, will encourage a wide inventorying of discernable potentials, processing a selected number into industrial prototyping and industrial logistics synchronization with equal emphasis on the individual and synergetic functioning of the group.

Natural collaboration with the Agricultural and Engineering departments prior, during and after the project, will take advantage of the experience gained by collaboration with the Textile School and other departments in the development of the Cotton Mill Study and will be a fundamental policy of the 1953 project.

R. B. FULLER, Visiting seminar director

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Art tends not only to discover the truth but to exaggerate and finally to distort it. And maybe in this distortion lies the essence of art.

-Matthew Nowicki

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The Student Publication began as a tribute to Matthew Nowicki after his untimely death in 1950 at the age of 40. His influence and inspiration as head of the Department of Architecture inspired the students to create *The Student Publication* in his honor, and so the first issue focused on Nowicki's contributions to the College, the University and the field. Through the process, students realized the potential and importance of such a publication and collection of voices, that they continued the effort, focusing on timely and important issues in the field and inviting some of the most important and influential designers of the day to contribute letters, projects and articles. Such luminaries included Le Corbusier, Mies Van der Rohe, Buckminster Fuller and Richard Saul Wurman.

Between 1951 and 1985, 58 issues of *The Student Publication* were developed. From 1985—2000 *The Publication* took a hiatus, but in 2000 it came back full force with the issue informally known as The Phoenix. Since then, working with an editorial advisor and committee, students have developed the theme, invited participants, curated, edited and designed 8 issues.

In 2012 *The Student Publication* was incorporated into a course on design writing, editing, curating and publishing. The 2012 team worked diligently to establish a new model for *The Publication* that includes a robust archiving plan, distribution in both print and online forms, and a strong promotional campaign that connects *The Publication* to emerging topics in design education, practice and thinking.

Publication Campaign
NC State University College of Design