

On piecing together the complex puzzle of art

Industrial designer Rebecca Murdock discusses the necessity of connection and collaboration, applying science to the creative process, and being accountable to yourself.

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As told to Yang Shi, 2348 words.

Tags: [Design](#), [Art](#), [Collaboration](#), [Success](#), [Process](#), [Production](#), [Failure](#), [Inspiration](#).

Tell me about what you do.

I'm an industrial designer who assists artists in conceptualizing their artworks. An artist may provide a physical mock-up, render or even simply an idea and my role is to help them translate that into a tangible object. I use a variety of design tools such as CAD modeling, rapid prototyping and augmented reality to design and fabricate an artist's piece, whether it be cast, milled or laser-cut metal, carved wood, molded or thermoformed polymer, or other materials. It requires me to simultaneously use my technical and communication skills, which is always a stimulating challenge. It's an unusual niche for a designer to find themselves in.

Most people, when they walk into a museum or gallery, assume that the artworks were made by the artist alone, which isn't always the case. When international artists have reached a certain level of financial stability and demand for their work by galleries and collectors, they cannot produce all their work alone. Often, they don't have the time or an artwork or element of an artwork may be outside their technical repertoire, and will ask specialists to help produce their piece. It is very common for established artists who work with sculpture, installation and other hand-made elements to seek out assistants whom they direct in executing their artwork. I enjoy being a part of this collaborative and specialized process.

I like to use analogies related to iconic companies to help people understand that it's normal for an artist to seek help in producing their works. I ask them: "Did you judge Steve Jobs for not coding any of the iOS himself?" Or: "Do you assume a director designs all the films' costumes themselves?"

The answer is of course no; we understand that the of power one vision, from the project's leader, is being able to execute a consistent message, iconography or concept across the many different mediums that a project requires. Not to compare or minimize art to product, but once an artist reaches an established level in their careers, in which high production of their artworks is necessary, there are similarities to becoming a brand. In other words, when an artist runs their own team and studio, they may become a sort of creative director and are responsible for executing the vision of their work alongside many collaborators. In many ways, they also become their studio's spokesperson and business developer. It's a very interesting dynamic to have witnessed and have been a part of at many points in my career.

How or when did you realize you would become an industrial designer?

I have always been interested in many different things: art, design, cinema and music. But because I have

consumed and studied these in my free time as hobbies, I thought maybe it would be useful to study a skill difficult to learn on your own. I love understanding how systems work, so I decided to go into Pure and Applied Science. I am also very interested in philosophy and saw a correlation between them. For me, the common denominator between art, philosophy and science is the desire to understand how things work—a curiosity. Mathematicians can be artists and artists can be researchers.

Ultimately, I was drawn to industrial design because it creates the possibility to merge ideologies with practicality and utility in everyday life. For me, this is art. However, after initially working for companies that singularly mass-produce objects (predominantly desk jobs) for a few years, I quickly understood this sphere of industrial design was not for me. I needed to be hands-on and I really wanted to experiment. Melding design and the art world really helped me explore my creativity on a multidisciplinary and experimental level more than pure industrial design, I would say. I was lucky enough to fall into contemporary art where experimentation, innovation and technical knowledge were encouraged and necessary to excel.

I've been fortunate to work with many artists on large-scale sculptural and immersive multimedia artworks, even monuments and public artworks, as with the Montreal-based artist [Rafael Lozano-Hemmer](#) and in my current role at [Urban Art Projects](#) (UAP) in New York City. I especially love designing public art because it lets me problem-solve and push the boundaries for projects for a public audience who can experience the piece in their everyday life, rather than paying to visit a museum to appreciate an artwork. It would be naive to say these artworks don't contribute or participate in a capitalist society because they do. But, it's one of the few instances left in a public societal setting where you don't need to consume to think or feel.

What is your favorite part of technical design?

Working as an industrial designer in contemporary art is, as you can imagine, a niche sector. For designers who like to get their hands dirty and prefer working on projects each with their own unique challenges and innovation possibilities, it's an environment in which you can thrive. Experimental and multidisciplinary art is inevitably chaotic. It's very fast-paced and rigorous. You become a guide and give structure to an artist's practice, so it requires some level of organization and stamina.

I think it's really exciting to use the latest visualization tools and hardware as much as software for fabricating artworks. Lately, I have been using the HoloLens 2 to assist artists in visualizing their artworks as well as with our incredible team of fabricators at UAP for when they need to verify that our sculpture's geometry and placement are exactly like the maquette the artist initially provided us with. Working in contemporary art also provides an amazing opportunity to bring together specialists from various fields and personal networks, from creative coders to fabricators, to help problem-solve specific aspects of a project.

What's your creative process?

It might sound a bit dry, but I think my way of thinking is heavily influenced by my science background. I like applying what I would define as a scientific methodology to my work, my design briefs and timelines, in other words, the empirical method. This allows me to apply an overarching rule: *never assume*. It's all about having an idea, a hypothesis, and then through experimentation and systematic observation arriving at a discovery or a confirmation of your initial beliefs. It's the opposite of speculation and therefore, lets the "truth" overcome our ingrained biases. While many assume art is a purely creative field, this thinking allows me to problem-solve difficult and detail-oriented projects.

In terms of innovation, you can't always make great things if you only use what you've learned through personal experience. You have biases and you need to listen, observe and communicate with other people who know more than you. [IDEO](#), the international design firm and an inspiration of mine, created and popularized a methodology of design thinking that has transcended design into business, finance, medicine, and technology, with an empirical but empathetic approach. They are an excellent resource to turn to when you need to rethink why and how you're designing. As a technical designer, you must use creativity in an organized and methodological way.

The act of organizing, categorizing, and piecing together the complex puzzle that is an art project is

surprisingly a major part of the experience of creativity. It requires a significant amount of calculating pros and cons, clear communication, simulating different scenarios and considering emotional bonds with people and respect.

How do other people or collaborators figure into your work?

A big part of my love for my job is bringing people together and using each person's unique talents to achieve the best result possible. Sometimes, what attracts me to what I do isn't always the actual product we're designing or the result; it's the connections you make with people and what you learn from them that are the most exciting. We need to avoid being siloed, and this transcends the workspace in creative fields. Like in culture and politics, staying in our echo chamber reproduces the same diluted ideas and work and blocks dialogue that leads to innovation. I think people should seek out connections with people who are at least slightly different from themselves, in work and beyond.

I know you are very curious. Where do you think this curiosity comes from? How do you explore things?

Logically, it must come from my scientific side of wanting to understand the world and why humans act the way they do. Philosophically, it might just be myself asking where opinions come from. What's the difference between gut feeling, opinion, and prejudice? I must say I dislike prejudice. I know it's inevitable because we are programmed to judge to protect ourselves from danger, which is a good thing. It gives us an evolutionary advantage. But, contrary to gut feeling, which I believe is a key to personal success, prejudice is based on appearance or shallow beliefs that we were taught. I try to avoid unconsciously listening to my own biases. That's probably why I am so curious and value a hands-on approach to life, design thinking is a scientific and empathetic way to do just that. Art and design offer critical thinking and make you reflect on why you think a certain way. I think it gives us a way to perceive life differently and allows us to ask questions we wouldn't have been taught to ask.

What was the most life-changing moment in your career? Or what's your dream?

The most life-changing moment in my career was when I designed and prototyped from start to finish my first complex media art installation and got to install it in Montreal's Contemporary Art Museum. The installation, [Sphere Packing: Bach](#) by Rafael Lozano-Hemmer, consisted of a three-meter diameter sphere that contained 1024 speakers. Each one played a different score; together, a cacophony of Bach's music within the sphere, which was a beautifully chaotic and immersive experience.

For four years, I worked for Lozano-Hemmer's studio in Montreal as his lead designer; I would design, produce and project manage the studio's large-scale projects. It allowed me to develop so many skills: how to ask the key questions to build a solid design brief, build full production budgets, develop a network of suppliers, prototype efficiently, work with new technologies, and more. On top of that, we would travel the world and spend sometimes weeks or months on end installing shows as a team. It was exciting, fast-paced and extremely demanding. I wouldn't have traded that experience for anything. It offered mentally stimulating work that was unburdened by strict rules. Almost like "art cowboys"?

I think one of the reasons why this experience was so special was the fact that my boss, the artist, trusted me and gave me the chance to profoundly develop my independence as a designer. I was 25 years old when I joined his studio and started designing and producing these massive complex installations that integrated electronics, custom software and hardware, and coding. After designing and delivering a few key projects, many across the world, I was trusted to manage the budget, the materiality, and the prototyping methodology that I think few designers at that age working at a standard design studio would ever have experienced. He was and is an amazing ally in my career and truly helped me grow.

If you could do anything else, what would you do?

Culture writer/reporter and producer. I do this in my free time as a passion and hobby. I'm obsessed with music and pop culture and it's at the core of who I am.

How do you nourish your creative side when you aren't working?

Because I work for artists as a full-time job, it is often daunting to be creative in my personal life, so when I do have time to myself, I try to work on my personal projects. I love exploring different materials and techniques, and have lately been focused on modular furniture and object design. Aluminum is infinitely recyclable, durable and locally sourced in Quebec, where I am from. Laser cutting is a cost and labor-effective method of fabrication. The fact that it is composed of three flat parts reduces packaging waste and cost whilst facilitating transportation. Generating a 2D drawing greatly simplifies the design process. The end user may assemble it without assistance or any hardware whatsoever and may disassemble it when needed.

What do you consider failure and how can you succeed?

I think the worst part of failure is feeling that you let people and/or yourself down.

Having worked outside of the norm of traditional design, I've felt like an impostor for most of my design career and I know that I am not alone. When I hang out with industrial designers who have followed a more traditional path, I realize I wouldn't have been happy or honest with myself if I had followed their same path.

I think it's fine and healthy to take a moment to let out your feelings and understand why you feel that way, and feel all the negative emotions that come with it. But you need to remember that you are accountable for your actions. At the end of the day, you are the only one that can get yourself out of a rut even if you have an amazing support system around you.

Rebecca Murdock recommends:

The Riot Grrrl movement. What started my obsession with punk, music history, and multidisciplinary female artists.

David Bowie's statement at the beginning of "Modern Love": "I know when to go out, I know when to stay in, and get things done." *Ziggy Stardust* is maybe my favorite album of all time.

Italo Disco. This movement is so camp, I can't resist. What's not to love about overlaying hi-nrg happy beats with romantic lyrics?

Prosciutto. I try to be vegetarian, but this specific cured meat keeps getting in the way.

Name

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Vocation

industrial designer

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