

## Introduction

One of the reasons for the current popularity of design is that design methods are useful for structuring and amplifying creativity, and creativity is valued in contemporary society. In fact, design is so pervasive, it is fair to say that design has become an institution in the twenty-first century (Lee 2020). In some respects, we might take that to be a good thing. After all, a basic premise of design is that the products and services designers make should be of value to people. Orienting design around concepts such as empathy seems, at least on the surface, to be beneficial. But the relentless pursuit of innovation, the uncritical embrace of the new and novel, and the treatment of all problems as design problems can produce a kind of cultural imperialism. Claiming design as a universal method is appealing to many people and organizations precisely because it can be used to assert authority and dominion.

Design *does* offer ways of thinking and doing that can be oriented toward imagining and making worlds that are more just, sustainable, and democratic. But the profession of design tends to be oriented toward other contexts, with other commitments. Those are the contexts and commitments of free-market capitalism, which have come to infuse not only industry but also much of government and civil society. In this book I will offer a perspective on thinking and doing design otherwise. What I mean by this is thinking and doing design in different ways than are typical; it's still design, but it's not the prevailing ways of talking about and doing design. In particular, my interest is how design might work as a mode of democratic inquiry into diverse civics. In such a practice designing is, at one and the same time, a way of participating in anticipatory worlds through making and an endeavor through which to reflect on the conditions that might

make those worlds possible, desirable, or not. Designing becomes a way to care, together, for our collective futures.

In this book I tell stories that help us theorize how practitioners and scholars might contribute to democracy through what I call design experiments in civics. Like other forms of democracy “in the small,” (Binder et al. 2015; Ehn 2017) the projects in these pages are socially and culturally situated, both because of when and where they happened and because of who I am. They occurred in a particular place over a span of time: a city in the southern United States in the early part of the twenty-first century. They are set, in part, within academia. And they unfold in relation to existing practices and discourses of design. While my arguments about design and democracy gradually develop throughout this book, it is worthwhile to introduce some of these contexts before delving into the particulars in following chapters.

### **A Confluence of Design Otherwise**

First and foremost, this work is situated in existing practices and discourses of design. Of particular interest is the potential that exists in the confluence of critical and speculative, social and participatory design. When these modes of designing swirl together, there is a possibility of emergent practices that blend imaginative making and politics toward engaged inquiry (Sanders and Stappers 2008, 2012).

Since the early 2000s, critical and speculative practices have become increasingly common in design. These practices were not new when they came to the fore, but they were novel, outside of familiar ways of doing design at the time. And that was part of the point: to offer another perspective on what the objects of design, designers, and the field of design might be doing. Much of what we today call critical and speculative design is often traced to the work of Tony Dunne and Fiona Raby (Dunne 2008; Dunne and Raby 2001, 2013). Over a series of books and projects they articulated a field of practice. Within those texts, Dunne and Raby make clear that critical and speculative design is not a break from design; rather, critical and speculative design draws together histories and practices of making that span art and design. As Dunne and Raby note, contemporary speculative design can be traced farther back to the radical design of the 1960s and 1970s and the work of collectives and studios such as Archigram, Superstudio, Global Tools, and

Archizoom (Coles and Rossi 2013). What is often overlooked is the political aspirations of those collectives and studios (Elflin 2016).

One distinctive quality of critical and speculative design is that it casts the designer as an author of sorts, capable of and responsible for producing content as well as form, or perhaps more accurately, producing content through form. When making in the mode of critical and speculative design, the designer is just as much engaged in storytelling as they are in rendering materials. Coupled with the notion of the designer as author, critical and speculative design is distinctive because it remains as a concept. Usually, concepts are steps in the design process toward a product or service that is ultimately realized through mass production and use. But in critical and speculative design, the concept is enough; the valuation of design is found in expressivity of that concept and its capacity to incite consideration.

Much of the work of critical and speculative design in the early 2000s shared a set of themes and aesthetics. This is unsurprising, given that it emerged from a small number of schools and studios. Critiques of those shared themes and aesthetics brought to light the need to develop pluralistic practices and discourses of critical and speculative design. In particular, critiques were brought to bear on critical and speculative design as being too Western, too northern, too white, and too enmeshed in and expressive of the privilege that often accompanies design (de Oliveira and de O. Martins 2014). This debate led to an exciting articulation of critical and speculative design with postcolonial theory, feminism, and queer theory (S. Bardzell 2018; de Oliveira and de O. Martins 2019; de O. Martins and de Oliveria 2016; Sengers, Williams, and Khovanskaya 2021) along with other speculative practices and discourses, such as Afrofuturism (Harrington and Dillahunt 2021; Winchester 2018).

Since the early 2000s there has also been a renewed attention on the social capacities and potentials of design. This manifests across a range of terms such as social design, social innovation, and design for social innovation. As with critical and speculative design, this is not new to design. One common origin point for much of this work is Victor Papanek and his canonical text *Design for the Real World: Human Ecology and Social Change* (1971). Papanek was critical of design and sought to reconstruct it as a practice for the good of people, beyond market imperatives. Contemporary social design continues this impulse, employing design techniques to address a range of pressing societal issues such as education, healthcare,

justice reform, climate change, and food systems. In many ways, social design is fairly customary. Social design projects tend to use familiar techniques to address societal issues, and the outcomes of those techniques also tend to be familiar design things such as products and services, communications, and environments.

Similar to critical and speculative design, the histories and contemporary practices of social design are complicated. As design historian Allison Clarke (2021) describes, Papanek's practice was very much informed by agendas and strategies of international development. These agendas and strategies often purported to be emancipatory but in fact reproduced the hegemony of the West, grounded in the values and motives of Western nationalism and industry. Comparable histories that complicate utopian or progressive thinking have been drawn out by Fred Turner (2010) and his inquiries into the relationships between the counterculture of the 1960s and 1970s and contemporary Silicon Valley. During the early surge of social design, journalist Bruce Nussbaum questioned the commitments and impact of social design, posing the provocation "Is Humanitarian Design the New Imperialism?" (2010). Such questions about the commitments and capacities of design in relation to societal issues continue today, for instance in Mahmoud Keshavarz's (2020) scholarship exploring the limitations of design in addressing humanitarian issues such as migration and refugees.

At times, there seems to be a tension between the discourses and practices of critical and speculative, social and participatory design. At other times, and in curious ways, these discourses and practices seem to meld together. Arturo Escobar's (2018) concept of design for a pluriverse is one such example. Escobar articulates a pluriversal design that draws upon feminist and post-colonial theory, much of it from the Global South, calling for an approach to design that recognizes and strives for a multiplicity of worlds. Such a perspective is in stark contrast with the universalism that characterizes modernism and which continues to characterize much of contemporary design. Such a perspective also relies upon blending imagination with substantial and sustained commitments to politics, in order to participate in making other worlds possible. Ezio Manzini's (2015) long-standing research on design for social innovation also exemplifies an expanded practice of design, negotiating between expert and everyday practices, and the local and the global. In Manzini's work, the social is not a given but is rather a field of forms open to ongoing reinvention that design can contribute to. And design contributes

not just through the making of things but through practices of collaborative and collective sense-making and meaning-making. Another example is Daniela Rosner's (2018) concept of critical fabulations, which draws upon the work of Donna Haraway (2016). Critical fabulations become a way of telling different stories about what design has been, what it is, and what it might be. Similarly, the work of Laura Forlano (Forlano 2016, 2017; Choi, Forlano, and Kera 2020) resists simplistic categorization and offers instead a robust and exciting approach to thinking and doing design that brings the critical, speculative, and social together. Deepa Butoliya (2020) offers yet another example as she draws on Indian practices of *jugaad* to develop a notion of critical *jugaad* as "a tool for resistance, subversion, and criticality against colonial powers of oppression" and "a nonviolent critique that provokes and questions the techno-utopian imaginaries in futures discourse." In such mingling of practices and discourses, the habits, values, and commitments of design change, and along with that, so too should change how we describe and judge design.

Participatory design offers an additional site of discourse and practice in which criticality, speculation, and politics meld together. Contemporary participatory design exceeds its original charter—collaborating with workers in the design of systems that structure their labor—to embrace discovering and expressing alternate presents and futures with a range of publics (Simonsen and Robertson 2012). What is particularly compelling about such work is that it retains a commitment to democratic conditions and experiences, while also recognizing that such conditions and experiences should be discovered anew through imaginative and collaborative making. We can also find connections between participatory design and design justice. What is notable about design justice, particularly as elaborated by Sasha Costanza-Chock (2020), is the commitment to communities and social movements. Design justice also questions the presumed authority of the designer. Rather than placing the agency of invention and action in the hands of designers, design justice privileges those who are most affected by the products of design and recognizes the existing creativity of people and institutions who do not necessarily call themselves designers. This approach echoes aspects of participatory design as it was initially envisioned, and then broadens and enriches those values and practices with contemporary theory and in the context of activism and advocacy. One particularly moving aspect of design justice is the breadth of theory and

issues attended to. Costanza-Chock and others engaging in design justice draw from and combine Black feminism, queer theory, and disability studies to articulate perspectives that are boldly intersectional.

Across this range of approaches, there is a shared belief that the creative capacities of design can enable us to imagine and act in the world differently and can be used to propagate possibilities for engaging pressing social and political conditions. Furthermore, what is common across these practices and discourses is that, in varied ways, they are all experimental practices: they all involve forms of inquiry through making and use. The concept of design experiments in civics that I develop throughout this book is situated within these practices and discourses of design.

At the same time, it is important to acknowledge the shortcomings of design, in both intent and outcome, and how design can work *against* discovering and expressing alternate presents and futures, thwarting the making of other worlds. Lilly Irani's (2019) concept of entrepreneurial citizenship is crucial in this regard. Through her scholarship, Irani details how discourses and practices of design transform social and political conditions into opportunities to be capitalized upon through innovation. As Irani compellingly and thoroughly argues, "The function of entrepreneurial citizenship is to subsume hope and dissatisfaction, redirecting potential political contestation into economic productivity and experiment" (2019, 22). Throughout this inquiry, I wrestle with how not to fall into this trap, this tendency of design to reproduce and reinforce the status quo (Julier and Kimbell 2019), to assimilate and monetize difference, all the while claiming to be in some way empowering. Can an experimental practice of design contribute to other values and demonstrate other commitments? Rather than "foreclosing the slow work of democracy across difference" (2019, 22), as Irani notes design often does, can we articulate a practice of design that contributes to the resources and capacities needed for the often uncomfortable work of democracy?

### **An Engaged Practice-Based Research**

The basis of this book is a series of projects, but I did not initially set out to assemble these projects into a book. Rather, I was interested in exploring design that straddled the critical and speculative, the social and participatory; I was interested in exploring—through reflective practice—how to

think and do design as democratic inquiry. These projects developed from relationships with people, institutions, and ideas. They included organizing workshops to elicit participation in writing scenarios for so-called smart cities, collaborating with a collective that aims to address food insecurity, and assisting a resident in his use of data to advocate for resources for his neighborhood. Across these contexts and issues, three ideas united these projects: a commitment to those I was working with, the idea of design as inquiry, and a desire to support local activism. What I was attempting to do in each of these projects, individually and collectively, was articulate a practice of design that was engaged, imaginative, and political.

And yet, throughout these projects, what I encountered time and again were the complications and limitations of design. This included the inappropriateness of many methods and principles to community settings, the lack of frameworks and theories to account for the ad hoc qualities of this work, and the ambiguity of effect these projects had. This book emerged from struggling with projects that were fragile, partial, and compromised—characteristics that did not align with the standard discourses of design. But rather than trying to ignore those complications and limitations or write them out of the stories I told, I chose to accept those complications and limitations as the conditions and qualities of this work. In doing so, I wanted to find a different way of describing and appreciating practices of design. Rather than assert the authority of design—or, for that matter, democracy—I wanted to attend to its tenuousness. This casts design in a much different light from the heroic stories of innovation we have become accustomed to.

The work of these projects constitutes a mode of practice-based research, grounded in collaborations with communities. Throughout this book I use the terms “we” and “us.” The “we” and “us” refers to those involved in these projects. That includes me and also an array of students, research staff, residents, organizers, advocates, activists, and government workers. While I will develop the interpretations that follow, this is not my work alone. These projects were and are collective affairs, and it is important to acknowledge that. Describing this work as collective and collaborative, attending to the labor of all involved, is part of what needs to be done to counter those stories that mythologize the individual maker and valorize the presumed expertise of the professional designer. The “we” and “us” also refers to those who are interested in the scholarly practice and study of design. And that is yet another way this work is situated.

Throughout this book I advocate for a reserved perspective on design. The projects in this book reveal numerous roles for designers in contemporary political life that benefit equity and justice. That is, I believe that people who design—who may or may not be formally recognized as designers—can aid the ongoing contestation and renewal that characterizes democracy. But I also believe those contributions are limited. By acknowledging the influence of design as limited, I hope to offer a theorization of design that recognizes how designers might aspire to participate in democracy, while remaining self-effacing about the effects of that participation. This does not mean such design is useless or token. Rather, I merely seek to recognize that such design is often modest. When we look to the realm of social and political action, the significance of design is difficult to discern, and its agencies are a challenge to untangle. This is true across the many modes of design practice. While there is evidence that support claims that critical and speculative design can prompt reflection, and that social and participatory design can increase the agency of those it engages, just as often the outcome of such work is a fog of affect and effect. Rather than disputing the ambiguity of design's effects, I accept its incompleteness and indeterminacy as a starting point for investigation. Indeed, questioning the efficacies of social and political design opens other interpretations and pathways.

While I do argue that the effects of social and political design are incomplete and indeterminate, I am not arguing for a rote instrumentalism or functionality that would make design seem to be more definite, to bring about certainty and closure. I am resistant to the idea that design should be operative and convenient in the ways we often expect of design.

It is notable, but perhaps not surprising, that so many of the practices and discourses of design that motivate this book are connected to academia. One reason may be that academia offers distinctive opportunities for inquiry. Without a doubt, the work described herein is academic, situated within academic institutions. Often, the term "academic" is wielded in a dismissive manner, as in "that's just academic." I take that to mean that whatever is being labeled as academic is seen as distanced, theoretical, or hypothetical. When the term is used so dismissively, whatever is labeled "academic" is often compared to industry. Many in government and civil society similarly deride academic pursuits as lacking. Throughout the projects that make up this book there were moments when the design work was dismissed as academic by people in government and civil society. Municipal



employees, public officials, and foundation and philanthropy officers often wanted answers and solutions that fit their existing ideologies, agendas, and commitments. In these contexts, labeling work as academic cast it as hindering established modes of governmentality. In our contemporary condition in the United States, the role of government is increasingly managerial and fiduciary. It is focused on optimizing services and improving the capacity to manage capital. Accordingly, government and civil society often dismiss academic work because it does not meet their immediate needs to maintain the status quo of governing. I have no problem with that. In fact, I'll go further: it is often ethically appropriate and morally important to do design that does not align with the status quo of governing, or for that matter, with industry. It is a responsibility of academic designers to ask questions and pursue lines of thinking and doing that are at odds with our standard forms of government and governmentality and that are at odds with free-market ideologies. This is particularly true of work that seeks to support democracy beyond its current instantiations and institutions.

While I embrace the notion of “academic” as not beholden to the logics of industry or government, I reject the idea that academic work is universally distanced, inherently moot, or solely hypothetical. My position is that academic design, like all academic work, can be undertaken as a mode of engaged scholarship. The ability to be distanced from status quo forms of government, from a rote instrumentalism and functionalism that tends to define professional design, enables us to hew close to the lived experience of communities. Academic designers can take lived experiences seriously without needing to justify them in relation to market potentials or whether they adhere to formal modes of governance. One of the ways the work herein is so situated is in its closeness to the city of Atlanta.

### **Atlanta as an Ever-Emerging Smart City**

This book is grounded in a time and place: a span of five years, from 2014 to 2019, in Atlanta, Georgia, in the southeastern United States. Throughout those years, and still ongoing, calls to create the smart city reverberated through governments, the tech industry, and academia. These messages made claims about the purported civic benefits of using data for decision-making. Across sectors, smart-city champions wanted to turn Atlanta into a testbed for ubiquitous sensors, autonomous vehicles, and open-data repositories.

The standard perspective was that smart-city technologies would improve our collective lives by making government and business services faster and more seamless. But I saw other reasons why Atlanta was an important place for rethinking how democratic pluralism might evolve in an age of algorithms and data.

Atlanta is the birthplace of the civil rights movement in the United States and a majority Black city. This rich cultural history defines Atlanta's identity, even as it remains haunted by the anti-Black legacy of the Jim Crow era and the racism and classism that continue to this day. Atlanta street names are a constant reminder of those who came before and fought for civil rights. They also attest to the divisiveness of that history and its persistence: street names change along a north-south line, demarking racist histories and racial divides. Many of those divisions remain. That demarcation did not occur by accident, nor is the gentrification that is displacing historically Black communities merely a matter of chance. To this day, the state of Georgia is renowned for its political activism, and Atlanta is still home to civil rights movement leaders and organizations that influence the city, region, and nation. In the 2020 US presidential and senate elections, the state of Georgia turned from red to blue for the first time in decades—the result of the tireless work of organizers, many of them Black and many of them women. At the same time, the opportunities for economic mobility for residents of Atlanta continue to be among the worst in the United States: those who are born into poverty are likely to remain in poverty throughout their lives (Chetty et al. 2014; Opportunity Atlas 2021).

The proud histories of civil rights and activism sit uncomfortably alongside present-day realities of blatant racism, voter suppression, and rampant inequality. The questions of how to do democratic inquiry, of how to contribute to diverse civics through design, were and are influenced by these legacies and their ongoing instantiations. Atlanta itself set the tone for this work far more than I did. All that being said, I need to acknowledge I am not from Atlanta, nor am I from the South. It means something to be a Southerner. As a white man from the North, my place here will always be somewhat of an interloper. And my position as faculty in a local institute of higher education is a privileged position.

Atlanta's foray into becoming a smart city was troubled and continues to sputter. Throughout the years these projects were undertaken, Atlanta had multiple chief information officers, chief resilience officers, chief equity

officers, and two mayors. Each of these differently conceived of and shaped what a “smart Atlanta” might be. The Georgia Institute of Technology also played a role in the move toward a smart Atlanta. Several of the technology testbeds in the city were developed by Georgia Tech faculty and research scientists. In 2015, the city of Atlanta, in partnership with Georgia State University and the Georgia Institute of Technology, became part of the Metro-lab Network—a national network of municipal and university partnerships exploring and advancing the technologies and services of smart cities. This connected Atlanta and its efforts toward becoming a smart city to other cities nationally and internationally. But Atlanta’s data infrastructure remained limited and, moreover, vulnerable. In 2018, the city fell victim to a massive hack that brought down systems and services for weeks. Consultants were hired to rebuild and fortify these systems and services, though some remained offline for over a year.

Today, Atlanta is nowhere near other major US cities’ use of data for municipal decision-making. The open data provided and maintained by the city of Atlanta is limited. There are no substantive and sustained municipal initiatives or offices or programs that are working to develop the data resources and capacities of city government, such as Boston’s Office of New Urban Mechanics or Los Angeles’s Innovation Team. There is, perhaps, a benefit to this. For the most part, the city has yet to move toward the kind of algorithmic automation and data surveillance that have proven so dangerous in other cities. Such conditions are important to note to make clear that the projects in this book were not undertaken under direction of existing civic enterprises. In fact, they were, for the most part, undertaken in response to or in the absence of municipal initiatives. Unlike the majority of technological testbeds and platforms being created and tested in Atlanta, these projects began with residents, with the neighborhood and community organizations of the city, within those very histories, presents, and futures of rights, activism, and inequality.

All these conditions are yet another way this inquiry is situated. Their entangled histories, relations, and aspirations are actors in the ongoing events of exploring what local democratic conditions and experiences are and might become. The projects in this inquiry emerge in relation to very particular happenings: to proposed sensor testbeds set within gentrifying neighborhoods, to collectives working to address food insecurity across the region, to residents attempting to figure out how to do the work of

neighborhood advocacy when collecting data becomes part of that work. While these conditions situate this inquiry, much of the work is intentionally positioned in response to the prevailing discourses and techniques of smart cities and standard approaches of technology-driven research and development. Rather than presuming that government or industry—or academia, for that matter—should determine what a smart Atlanta should be, these projects look to residents to craft those futures. Rather than thinking that various technologies will help the city become entrepreneurial or resilient, this work begins with the recognition that the residents of Atlanta and its local organizations are *already* creative and resourceful, and that whatever technologies are introduced should work within and amplify those existing practices and desires. Moreover, there should always be an opportunity to refuse technologies: neither technology nor design should be assumed as destiny. Instead of the refrain of positivism that characterizes so much of technology-driven research and development, throughout this book I draw from reflexive modes of the humanities and social sciences, which offer critical perspectives of technology and design. Such critical perspectives are imperative for making democracy vibrant.

### **Toward Design Experiments in Civics**

In a sense, this book is itself a design experiment. It gathers together values and experiences and orders them to produce a constellation of praxis. Another way to frame this inquiry is as aspirational design criticism. It draws together an assortment of theory and empirical accounts to consider both what is and what might be in regard to design and civics. I hope this book enriches our understanding of theories and practices of democracy as much as theories and practices of design. As Johan Redström (2017) notes, when making design theory we are constructing interpretations of design and also interpretations of something else. That “something else” is often the conditions of the work. In this case, that something else is civics and, more generally, democracy broadly construed. As such, an ambition of this inquiry is to inspire us toward thinking about and doing design differently, and also toward differently imagining our communal lives.

Throughout this book, I attempt to both describe and perform a way of thinking and doing design otherwise, inspired and informed by the work of others. Part of this is the stories I choose to tell, and part of this is *how*

I tell them. As mentioned, one characteristic of this approach is a reserved perspective on design, telling stories and theorizing in ways that eschew heroism and authority, to instead attend to the tenuousness of design and democracy. Another characteristic of this is in relation to academic discourse. It is standard in academic writing to push against something. To an extent, I'm doing just that; I'm contesting the usual narratives of design, familiar assumptions of what design achieves and how it should achieve it. At the same time, just as I'm resistant to the domineering narratives of design, I've become leery of critique that seems to presume a purity politics (Shotwell 2016). A move toward different modes of critical interpretation and engagement is emerging across the humanities and social sciences, and my approach to this inquiry is inspired by many others who are constructing a different kind of academic discourse, one that "gathers together" (see D'Ignazio and Klein 2020; Gibson-Graham 1996, 2006; Latour 2004; Liboiron 2021; Lindström and Ståhl 2014; Lury and Wakeford 2012a; Shotwell 2016). Of course, discernment and criticism are necessary. But more than pushing against something, my hope is to open design practice and discourse to other aspirations and affects. I want to articulate the potentials of design inquiry as engaged, committed, social, and political, *while also* fragile, contingent, partial, and compromised. What I've set out to do in this book is to tell and theorize stories that consider how practitioners and scholars might contribute to democracy through design in ways that are circumscribed and incomplete—and also hopeful. Design experiments in civics are one way to do so.

