The Disobedience of Design, (vol. Radical Thinkers in Design)

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Book Reviews

Bruce Brown

The Book of Cal's by Cal Swann (First published 2022, York Publishing Service), ISBN 978-0-646-86237-8, hardback, (color illustrated, $44.40), (black/white, $21.65), 254 pages.

Like its author, *The Book of Cal's* is a beguiling and authoritative read that spans fifty years of design practice and design education from 1951–2001. Written by someone who was there, it gives witness to both profound technological changes that were reshaping human communication and the ways we might educate ourselves.

Swann's book charts its way through five decades of change, starting in the 1950s—that time of hope just after World War II, which ushered in a golden age of design. Each one of the five decades that Swann charts is framed by the following themes: 1) craft-based design ideas and the British print tradition, 2) a shift to modernism and the impact of the Swiss International Style, 3) the emergence of design research along with the integration of social and inter-disciplinary practices, 4) post-modernism and the introduction of computer-based systems, and 5) the advent of smart networks and the incorporation of art schools within new universities.

Beyond its working structure, *The Book of Cal's* also narrates the odyssey of a self-professed modest man shouldering working class baggage—a jobbing designer who, nevertheless, was a few good strides ahead of the field throughout these five decades of change. As Swann rightly observes "most art history books tell us about the heroes … the big narrative from up high" (p.5, par.3). But mine, he says, "is a curate's egg that might be good in parts" but, hopefully, will carve out a place "for the average bloke to be recorded along the way" (p.3, par.4).

But Swann's book is not a slight book, nor can it be discounted simply as a personal memoir (though that may have been its genesis). While it is an account of the "ordinary, lived-in experience of a commonplace working life" (p.4, par.2) it is the account of a life caught up amid dramatic change through which society was re-visualized and design education began to change.

In the latter case Swann was always in the vanguard.

For these reasons alone it is an important account—a veritable odyssey that lays bare some of the threads connecting different facets of this increasingly complex world and an eventful personal life—from medieval manuscripts (such as the *Book of Kells*) to Post-modern design; from the heaviness of metal type to the lightness of virtual typography; from the jobbing typographer to the man of letters; from the path of artisan to scholar through design practice into design research; and, from personal crisis to a new home, via Liverpool 8, onto Australia's Sunshine Coast.

The book's title stems from two incidents in Swann's early life. First, a childhood friend and jazz partner, Carl Reilly, who, when first meeting Swann in high school at Swann's age of eleven, coined the phrase "Book of Cal's." Second, and many years later, a postcard Swann received from Ken Garland who, on seeing the *Book of Kells* in Dublin, wrote that this experience might have compelled him to "give up graphic design." He goes on to say, "no way can we arrest 1,200 years of declining standards" then adds, "we've been going downhill for 900 years." Finally, Garland instructs Swann to "tell everyone they're just wasting their time" (p.3, par.3). What seems to have resonated with Swann is this example of a lettering tradition located within a humanist ethos—that is, an art of illumination, designed to shed light.

These may be some of the reasons that prompted Swann to invest most of his professional career in bridging the gap between design practice and design education. Indeed, throughout a long career, Swann succeeded in keeping one foot on each side of this creative stream, delivering a steady flow of ideas and insights.

On one side, Swann continued to produce exemplary graphic and typographic designs of which *The Book of Cal's* contains abundant examples. Because these were always of their time, they reflect how, after World War II, British design stood at the intersection of three international crosscurrents. First, the Silver Goblet tradition of British Typography advocated by Stanley Morrison, Beatrice Ward, and others. Second, the introduction of European approaches to design such as the asymmetrical typography of Jan Tschicold and the

Swiss Style of Karl Gerstner, Josef Müller-Brockmann, and others. Third, the arrival of American approaches to language and type through designers such as Alan Fletcher, Bob Gill, Lou Dorfsman, and Herb Lubalin.

On the other side of this stream, and not long after graduating from Leicester College of Art in 1956 with a National Diploma in Design for Typography, Swann started to build a parallel career in design education. This was shaped early on through an encounter with Harry Thubron when Swann was teaching part-time classes in Leicester. Of this encounter he says "Thubron was the new guru in art education…and was running a radical foundation course at Leeds College of Art" (p.21, par.2). The excitement Thubron generated in students was largely due to his application of Continental approaches to a still stuffy tradition of crafts-based vocationalism. At this important juncture, Swann decided to move on to full-time teaching posts at the Manchester Regional College of Art (1960–62) followed by the London College of Printing (1962–63) and Plymouth College of Art (1963–64) before returning to teach in Manchester (1966–70). During this time, he produced the much-lauded book "Techniques of Typography"[1] which, alongside Ken Garland's *Graphics Handbook*,[2] is still considered, of its time, to be a beacon of informative design.

Having enjoyed a decade's worth of teaching experience Swann now looked for opportunities to shape the design curriculum (this move coincided with the British government's decision to create a new string of multidisciplinary Polytechnics which incorporated the majority of the previously independent art schools). So, for the next two decades, Swann served as Head of Graphic Design at the North Staffordshire Polytechnic (1970–81), Saint Martins College of Art (1981–86), and the Liverpool Polytechnic where he also served as the Dean of the Faculty (1986–89). This was a tumultuous period for any middle manager working in British higher education and Swann is candid about his own successes and failures—a lesson for all of us. His account also records the strains felt by a traditional, and conservative, system that was now under pressure to both expand and economize. In this turbulent context, Swann published a seminal, and much-debated, paper titled *Nellie is Dead*.[3] In this he concluded that "to achieve a complete re-appraisal of design teaching, it requires the first step of deciding to do without the peripatetic studio tutor" (Swann, 1986, p.20). Many consider this attempted assassination of the atelier system to have marked a radical turning point in approaches to teaching and learning in design.

When Swann was offered a senior academic post in Australia, it was with some thought for the state of British higher education as well as affairs of the heart that he accepted this attractive offer and set off on a new chapter in the odyssey. Over the next twelve years, Swann worked as Head of the School of Design at South Australian College of Advanced Education in Adelaide (1989–96) and then as a Professor of Design at Curtin University in Perth (1996–2001). This was a period marked by more departmental politics; the publication, in 1991, of his important book on *Language & Typography*;[4] and the opportunities to implement new approaches to the delivery of learning and teaching developed over previous decades. The latter stimulated by a convergence of digital technologies and personal smartphones and shaped by what Swann observes to be, "the tyranny of distance that had beset this nation" (p.185, par.2). Here, Swann was again in the vanguard, using these new opportunities to develop distance-learning programs over a vast continent.

Throughout his time in Australia Swann continued to speak on the International conference circuit. Each time he spoke he had something new to say and, picking up the baton from his earlier role model Harry Thubron, he would often stimulate audiences through unexpected or radical interventions. For example, at an ICOGRADA conference, held at Lisbon/Porto in 1995, Swann (a self-professed modernist) talked about the indiscriminate use of typographic layering, as made possible by digital technologies, saying "the justification of such effects by claiming intellectual association with deconstruction a la Jacques Derrida— a totally dishonest borrowing of an academic framework in an attempt to add dubious theoretical credence to purely superficial visual tricks" (p.163, par.5). This, not unexpectedly, added a welcome spice of honesty to the conference mix, being met with indignation, special sessions convened to discuss the controversy and walkouts. Just the stuff a good conference should be made of and not untypical of the heat Swann's insights would generate in supporters and detractors alike. Overall his

contributions, throughout a long career, were never to be ignored or passed over without comment.

Readers of *The Book of Cal's* do not need any personal knowledge of the colorful cast of named characters that populate its pages—some are illustrious, most are unsung—but, they are universal archetypes and, in all of their human strengths and weaknesses, they exist in every department of art and design around the world. Alongside this human dimension, Swann also documents the tremendous stresses and changes that design education went through in these years, partly as a result of political will, and partly in response to a rapidly changing society. And, throughout each of these decades, he produced key works that looked to the future and challenged orthodox thinking—always being in the vanguard. Though, in *The Book of Cal's,* Swann includes references to these important works; he does not brag of their significance. Equally, individual examples of his continued engagement with professional design practice are offered with a sense of pride but modesty when set alongside the work of his own design heroes.

Overall, *The Book of Cal's* is a colorful and forthright account of a man who made a significant contribution to design education over a fifty-year career along with accompanying affairs of the heart. For supporters and detractors alike, his honesty and forthrightness would not have been so challenging had it not been so perceptive and forward-looking. One must pay due respect to the fact that Swann is a believer—he continued to work for a better future throughout a very long career and then took the time and care to produce his account of this odyssey in *The Book of Cal's.* It is a valuable account of a turbulent half-century spent at the heart of design education and, for the next generation, it is his gift to the future.

1   Cal Swann, *Techniques of Typography* (London: Lund Humphries, 1969), ISBN 85331-238-9.
2   Ken Garland, *Graphics Handbook* (United Kingdom: Littlehampton Book Service, 1966), ISBN 978-0289369302.
3   Cal Swann, "Nellie is Dead," in *Designer* (March 1986): 18–20.
4   Cal Swann, *Language and Typography* (London: Lund Humphries, 1991), ISBN 978-0853315704.

Ricardo Lopez-Leon

Decolonizing Design: A Cultural Justice Guidebook by Elizabeth (Dori) Tunstall (MIT Press, 2023), hardcover, black/white illustrations ($13.83), 136 pages.

I recognize the ancestral territories of the Chichimeca Nations, who were the original custodians of the lands where the Autonomous University of Aguascalientes was established—the place where I teach and research in design. I begin this review in the same way that Dori Tunstall does in different parts of her book *Decolonizing Design* because, she insists that if we want to decolonize design, we must first ask ourselves, "Who are the indigenous peoples of [our] lands?"[1] (p.36). We must understand the land and recognize its inhabitants to undertake the process of decolonization. That is why, she says, self-preparation is fundamental to being useful in the process. It is important to recognize the original peoples of the land to identify the colonization processes. For instance, the author discusses her personal experiences working with different indigenous nations in Canada, Australia, and the United States. In these countries, she has been able to collaborate with different indigenous nations.

Tunstall's book is full of personal experiences, which she uses as examples to guide the reader in decolonizing processes. "By having you understand my experiences [...], my intention is that you will find success by refocusing your efforts on the real systemic change of decolonization" (p.72). This collage of memoirs allows the reading to feel close and easily accessible. At the same time, the author presents different conceptual frameworks that help to understand and deepen her reflections. Each chapter ends by listing key takeaways that help the reader identify possible routes to undertake the processes of decolonization, a complicated and even more challenging task since we, as designers, are inserted in the project of a modern and globalizing world.

In *Decolonizing Design*, the author addresses two myths "that we have told ourselves in design" (p.41). The first refers to the myth that a better life can be achieved through technology; the second, highlights that abandoning ethnic roots and cultural differences will homologate humanity to coexist in a better society.

Technology does represent access to a better life, but only for a few, since "better living through tech-

nology is the propaganda of the modernist project in Design"[2] (p.47). On the one hand, mass-produced technology has impacted all spheres of our daily lives[3] (Buch, 2004), but the economic benefit of mass is only for the elite. On the other hand, such mass production of technological goods impacts indigenous groups. Technological production requires large tracts of land, often displacing indigenous groups and limiting access to water to build dams and produce energy that can keep these technologies running. In addition, the production of technology perpetuates master-slave relationships by employing, under adverse conditions, many people to produce technological devices. Although the author does not mention it, I think it is also important to reflect on the waste generated by the production and consumption of technology and where this waste ends up, affecting communities in marginalized areas of cities—one of the issues addressed in the documentary Waste Land.[4] From this point of view, we can see how technology does not lead to a better life.

The second myth is to abandon differences, to forget ethnic roots, and to think that a homogeneous human being could lead to a better society. Therefore, design must abandon the promise of the modern project that "if you give up your national and ethnic identities, you might join universal humankind"[5] (p.56). The author calls for rethinking how we incorporate the Bauhaus ideology into our teaching practices, given that the iconic institution promoted a universal man but, in its conception, thought only of the white working man. What the author reveals about the reflections of the Bauhaus is the linearity of history and the discourse of a single voice of the modern project. That is why she invites us to reclaim the diverse origins of design. Decolonial studies have insisted on providing the means to promote the plurality of voices and perspectives[6] (Escobar, Mignolo). The author proposes to start from other ways of looking, such as those of the Aboriginals in Australia, and shows us how their values of respecting, knowing, caring, and sharing, can serve as an antidote to Eurocentric values.

It is important to emphasize, concerning this second myth, the practices of homogenization of the modern project, among which educational institutions, such as The Bauahus, have been protagonists. Professor Maori Linda Tuhiwai[7] reminds us that the ways of constructing and disseminating knowledge are also practices of the modern project, and educational institutions participate in the standardization of such knowledge by prioritizing particular ways of knowing and understanding that benefit the modern project and, therefore, dismissing local ways of thinking, knowing, and constructing and transmitting knowledge that are not aligned with it.

Decolonization can be tricky, according to Tunstall, it is not enough to increase the percentage of diversity, equity, and inclusiveness in organizations, but it is also necessary to aim for real change in the company's culture. To this end, the author proposes several strategies, the first of which is not to seek the acquisition of supertokens. Dori refers to a supertoken to those profiles that, given their skills and achievements, have managed to excel: "individuals from marginalized groups whose talents are so desired by institutions that they are able to overcome their innate aversion to the individual's identities in order to have access to those talents. Former United States President Barack Obama is a supertoken."[8]

A supertoken has had to break different barriers to get to where he/she is, and the risk is that the institution may take him/her as a reference against other marginalized people, that is, if that person, who also came from a marginalized situation, could do it, why can't the others do it? Also, hiring a supertoken does not guarantee a change in organizational culture. Also, newly hired marginalized profiles must often assume the company's imposed culture and, therefore, their perspective is blurred in the organization. Hence, it is not enough to be inclusive in hiring, considering diversity, equity, and inclusion.

The strategy to cope with this impasse is to make way for people who think differently, have a different lifestyle, and come from different contexts that show diverse ways of thinking outside the mainstream. The author suggests that if outside-the-mainstream-people are in decision-making and strategic planning positions, organizations' practices and ways of thinking will change, as well as their culture from within. Reprioritizing the budget within organizations to pay off the debt we owe to Native peoples is another activity that, according to Tunstall, design could undertake. Nevertheless, due to the land we took from Indigenous peoples and its associated cost, the expense is unimaginable.

At the end of the book, the author synthesizes the key takeaways from each chapter so that we can quickly access a manual-like version, or at least a guide to topics that we can discuss in our organizations to socialize and raise awareness of the decolonial agenda. I believe that the question the author poses at the end of the book remains unanswered, or that a sketch of response is only just beginning to emerge. How can we, through design, repair the damage that design has caused? Especially if design is considered within the project of modernity, that is, a colonial tool to homogenize, replace identities, and displace ways of thinking and living. However, as emphasized in the book, to decolonize design, it is necessary first to recognize other forms of design, different and alternative to the modern one legitimized by the Bauhaus. In addition, there are other expected, but missing issues within a book about decolonizing design. For example, how can we avoid the role of design in overexploiting resources, globalization, consumption practices, and aiding international companies to bankrupt local businesses and brands? The author focuses mainly on administrative and management aspects and public policy development, which are undoubtedly part of design thinking and doing, but at the same time, a large part of our discipline has been omitted from this discussion.

Lastly and besides being throughout the book, the author highlights the importance of putting Indigenous people first, it is essential to highlight that the decolonial agenda not only involves Native peoples but also those individuals whom the systemic activities of the modern project have been marginalized. Consider, for example, rural environments without access to basic services and education, where individuals cannot excel in the established educational and professional system due to these conditions. These individuals, by the way, are not necessarily related to Indigenous communities. Therefore, one must approach the strategies outlined, as hiring clusters of native individuals in universities and companies, with caution, as suggested in the author's discourse. For marginalized individuals to be employable, they must have had access to educational systems established through colonization. Education and institutions for learning are also colonial practices, as stated by Linda Tuhiwai.[9]

Dori Tunstall's *Decolonizing Design* is a valuable starting point for initiating dialogue and reflection and examining ourselves from the decolonial perspective to observe our professional design practices and their teaching. A great step in the right direction.

1   Elizabeth (Dori) Tunstall, *Decolonizing Design: A Cultural Justice Guidebook* (Cambridge, MA: The MIT Press, 2023), 72.
2   Tunstall, *Decolonizing Design*, 47.
3   Tomas Buch, *Tecnología en la vida cotidiana* (Buenos Aires: Universidad de Buenos Aires, 2004).
4   Wasteland. *Waste Land,* directed by Lucy Walker, Karen Harley, João Jardim (2010; Rio de Janeiro, Almega Projects, 2011), DVD.
5   Tunstall, *Decolonizing Design*, 56.
6   Arturo Escobar, *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds* (Durham, NC: Duke University Press, 2018); Walter Mignolo, "Modernity and Decoloniality," in obo in *Latin American Studies*, https://www.oxfordbibliographies.com/view/document/obo-9780199766581/obo-9780199766581-0017.xml (accessed November 30, 2023).
7   Linda Tuhiwai, *Decolonizing Methodologies* (London: Perlego, 2023).
8   Tunstall, *Decolonizing Design*, 77.
9   Linda Tuhiwai, "Decolonizing Methodologies for Sustainability," March 1, 2022. Waterloo's Faculty of Environment. Waterloo, Canada. YouTube video, 1:15:49, https://www.youtube.com/watch?v=R1p8R_XQqqU&t=862s&ab_channel=Waterloo%27sFacultyofEnvironment.

Fernando Secomandi

The Disobedience of Design, (vol. Radical Thinkers in Design), by Gui Bonsiepe (Bloomsbury, London: Bloomsbury Visual Arts, 2022) (hardcover $107, paperback $34.95, Kindle $31.45, Ebook $25.16); b/w and color illustrations, 480 pages (Book Review).

In this remarkable collection of works on Gui Bonsiepe's lifelong contribution to the field of design, Lara Penin and the editors of the series "Radical Thinkers in Design," with the assistance of Bonsiepe himself and other notable contributors, bring together more than forty articles originally written in four different languages and published in various countries over the last six decades. In accomplishing this challenging task, they deliver the most comprehensive and up-to-date single volume containing Bonsiepe's work currently available in any language.

I agree with the editors on the relevance, if not necessity, of such work as designers must increasingly attend, today, to the political and environmental crises that continue to affect our globe. Unfortunately, Bonsiepe's ideas have remained poorly discussed in many anglophone academic circles. *The Disobedience of*

Design is set to redress this lack of recognition that is so disheartening for the design field. In yet another sense, the book can greatly benefit researchers from peripheral locations of academic production, particularly in Latin American countries, who pursue their careers while reading and writing mostly in English. After this publication, they should no longer feel the need to excuse themselves or others for citing or forgetting to cite Bonsiepe.

In the introduction to the volume, Bonsiepe suggests his overall achievements are not the complete story but "building blocks of a future project theory to be developed."[1] The four-part book structure, organized in a thematic and nonchronological basis, captures well what these building blocks might be. The sections are titled "Thinking Design," "Design in the 'Periphery,'" "Design, Visuality, Cognition," and "Design and Development/Projects." Each section contains three subsections opened with an original *festschrift* piece by an invited researcher. All of Bonsiepe's reprints are preceded by contemporary commentaries by him. Knowledgeable readers might miss a preferred text here and there or question some selections. I, for instance, missed some texts from Bonsiepe's Chilean period that most vividly capture his socialist and revolutionary tendencies.[2] Also, I wonder if the review of Victor Papanek's book portrays Bonsiepe's critical style at its best. But these are minor remarks compared to the volume's main achievement: to give readers sufficient resources for engaging with his main ideas and understanding how they have developed or remained unchanged throughout the years. This realization is supported by contextual information added by invited researchers who display deep familiarity, and often proximity, with the author in question.

As expected from a publication whose primary purpose is to honor Bonsiepe, the overall tone of editors and guests is welcoming and congratulatory. At the same time, the volume would not feel entirely truthful if it did not reflect, on Bonsiepe himself, the critical stance he consistently maintained while thinking and practicing design. This is indeed achieved across the book, in subtle ways, when Penin reveals her preoccupation with issues of gender and racial discrimination that are mostly absent in Bonsiepe's writings,[3] when Constantin Boym hints at the possible elitism of his aesthetic judgment,[4] when Eden Medina shows design decisions to have been biased by gender considerations,[5] and when Marcos Martins and Zoy Anastassakis more fiercely question the industrial rationality of Bonsiepe's modernity.[6]

Following the same line, this review could not end satisfactorily if it did not seek to constructively challenge some aspect of Bonsiepe's *oeuvre*, too. And the issue that I find most problematic, after returning to his collected works, relates to a hostile confrontation with *otherness* of his modern design project. This gets most pronounced in the negative appraisal of the traditional "crafts design" of the African/Native American cultures of Latin American countries (see, particularly, "Design in the 'Periphery'").[7] In local searches for national design identities that could stem from preindustrial production, Bonsiepe finds only provincialism and nostalgia. In praises for the inherent aesthetic and symbolic qualities of such productions, he cautions against the romanticization of poverty and the alienation of workers. For the unresolved question of how the periphery should develop autonomously through design, he favors "European Modernism" in contrast to "American Consumerism" and "Appropriate Technology." But how can the periphery self-emancipate if it must stay other-oriented toward issues and pathways pre-established by the central countries?

Throughout the book, I find no appreciative line by Bonsiepe about alternative design approaches that do not align with his own critical industrialist rationality. If the Ulm School of Design, where he got his training, can be criticized for its *furor teutonicus*,[8] then its best expression in Bonsiepe would be the disregard for the Indigenous-making practices he enters into contact with at the periphery. The potential danger of naturalizing this cannot be overstated, for it is not that, according to him, design should be modernized by evolving on an industrial basis, but that outside of *industrial design* there can be no rationality for emancipation and, therefore, no future for peripheral countries.

In the foreword of Bonsiepe's "*A 'tecnologia' da tecnologia*,"[9] not included in the present volume, the anthropologist and then elected vice-governor of the Rio de Janeiro State, Darcy Ribeiro, gets close to the heart of this matter. Reflecting on his extensive time spent among Indigenous tribes in Brazil, Ribeiro hints

at a possible alternative to Bonsiepe's truth—anticipating what Martins and Anastassakis also do in this volume. He notes how every Indigenous person is not only a user but also a skilled maker of things, as exemplified by the overzealous labor a woman will employ in the weaving of a simple basket to carry cassava. For Ribeiro, such effort is only so because she sees herself to be fully represented in the output of her work. When finished, the basket will become part of the village's *tralha* ("stuff"), an unassuming collection of useful things whose beauty is to reveal, for the whole community, the authorship and virtuosity of their human makers, thereby stimulating the makers to create ever more beautiful things.

In an unexpected turn, Ribeiro suggests Bonsiepe's ambition is to similarly create *tralha de índio* ("indigenous stuff"). This is a generous way of inviting readers to appreciate a comparable commitment to perfection and social accountability in Bonsiepe's approach to industrial design. Being intended as the presentation of a book where that approach will be distanced from non-industrial modes of production, Ribeiro is expressing here an eye-opening sense of ironic humor. It is doubtful, however, whether Bonsiepe ever changed his position, as he reiterated charges against crafts design up to a few years ago.[10] In a 2019 interview, he conceded that the earlier perspective on development through industrialization might have been naïve and that he could have paid closer attention to the voices of social groups locally affected by his designs.[11] Would that be sufficient to vindicate his design rationality?

The point I am getting at with this short reflection is the *incompleteness* of Bonsiepe's dialectical movement. It hinges on a European Enlightenment project, channeled through an Ulmian version of design modernism, that seeks to ascertain itself *in* the other while not fully recognizing the other as constitutive of *itself*.

What, then, should be made of Bonsiepe's building blocks for a future design project? For me, and possibly those who contributed to the volume, this unfinished project is nothing short of monumental. It consolidates a critical approach to professional design filled with hope for social emancipation that is still rarely matched today. This is not to say that all parts of the edification are agreeable or must be carried out

to completion according to the original plan. Should these parts be demolished, reformed? Bonsiepe's own gesture towards reparation, above, remains thus far "cosmetic" improvements to the modernism he helped to project.

A better way forward might be to accept these building blocks as evidence of a radical modernist past that stands out ahead of us in many ways, praising its most genuine motivations and realizations without negating the imperfections. These can be taken as vulnerabilities that allow for the careful interweaving of alternative design approaches to strengthen and dignify the resulting piece. After all, maybe in our communal future, as Ribeiro fantasized, we will all be back to be "Indians like those of the cassava baskets, of the shameless desire for beauty and the most daring joy for life."[12]

1   Guy Bonsiepe, *The Disobedience of Design*, ed. Lara Penin, Radical Thinkers in Design (London: Bloomsbury Visual Arts, 2022), xxi.

2   For example, Gui Bonsiepe, "Vivisección del diseño industrial" ["Vivisection of Industrial Design"], *INTEC: Revista del Comité de Investigaciones Tecnológicas de Chile* [INTEC: Journal of the Chilean Technological Research Committee] 2, no. 6 (1972): 43–64. The importance of such publications is well documented in Chilean and Argentinian design scholarship, e.g., *Objetos para transformar el mundo: trayectorias del arte concreto-invención, Argentina y Chile, 1940–1970: la Escuela de Arquitectura de Valparaíso y las teorías del diseño para la periferia* [Objects to Transform the World: Trajectories of Concrete Art-Invention, Argentina and Chile, 1940-1970: The School of Architecture of Valparaíso and Theories of Design for the Periphery], (Buenos Aires: Universidad Nacional de Quilmes, 2011), 374–413; Hugo Palmarola, "Productos y socialismo: diseño industrial estatal en Chile" [Products and Socialism: State Industrial Design in Chile], in *1973. La vida cotidiana de un año crucial [1973. The Daily Life of a Crucial Year]*, ed. Claudio Rolle (Santiago de Chile: Editorial Planeta, 2003), 225–95; David Maulén de los Reyes, "Vi/vi/Sec/Tion of Industrial Design. Gui Bonsiepe and the Formulation of the Interface Concept. INTEC Chile 1972. Document of the Beginning of a Paradigm Shift in the Interaction Design Disciplines," *AI & Society* 37, no. 3 (September 1, 2022): 1115–29, https://doi.org/10.1007/s00146-021-01345-3.

3   Bonsiepe, *The Disobedience of Design*, xiv.

4   Ibid., 320.

5   Ibid., 413.

6   Ibid., 415–22.

7   Ibid., 103–210.

8   Ibid., 17.

9   Darcy Ribeiro "Apresentação," in *A "tecnologia" da tecnologia* [The "Technology" of Technology], Gui Bonsiepe (São Paulo: Edgard Blücher, 1983).

10 *The Disobedience of Design*, 169–78.

11 Ibid., 350.

12 Darcy Ribeiro "Apresentação" [Presentation].

Tania Allen

Autographic Design: The Matter of Data in a Self-Inscribing World by Dietmar Offenhuber. MIT Press (2023), color and b/w illustrated, 296 pages, paperback, $40 (Book Review).

For those working or studying the field of data visualization, and especially looking at the limitations inherent in data collection, transformation, and communication, Dietmar Offenhuber's new book, *Autographic Design: The Matter of Data in a Self-Inscribing World*, offers a relevant and novel approach to thinking about the way that we understand, interact with, and ultimately communicate the significance of data-driven phenomena. As someone who is immersed in teaching and thinking about the limitations of available data, and more particularly examining the biases, assumptions, and ethical debates that are inherent in the way that data is collected, transformed, and subsequently communicated, Offenhuber's argument and concept offers a compelling alternative to traditional forms of data collection and display, though Offenberger does not suggest they are in opposition but considers them complementary. *Autographic Design* lives within a larger landscape of critical perspectives on mapping and data visualization that hails from geography, landscape architecture, and urban planning such as Jeremy Crampton and John Krygier,[1] Johanna Drucker,[2] James Corner,[3] and J. B. Harley's[4] (some of whom are noted in the text) notions that the map (and information visualization writ large) does not merely reflect reality but actively creates it. While Offenhuber does not directly address issues of data oppression explored by Sofiya Noble in *Algorithms of Oppression* or Catherine D'Ignazio and Lauren Klein's more activist viewpoint in *Data Feminism*, it is not hard to make conceptual connections between the many contemporary texts that are questioning the methods and processes that have long been used to explain and define meaning as it influences facts and truths in contemporary society.

With a PhD in urban planning from MIT and an MS in Media Arts and Sciences from The MIT Media Lab, Offenhuber's research and practice span architecture, media studies, fine arts, and environmental design. His background and current research and practice position him well to discuss the complexity of this topic from both a theoretical and practical point of view. As Offenhuber defines it, autographic design is broken down into two parts: *auto*—defined as both of the self as well as automatic, and *graphic*—as in visual display. This definition is important to understanding the true nature of autographic design from a theoretical perspective and an operational one. Related to critical cartography—data *physicalization* and rooted at the intersection of art, design, and science—the autographic perspective "does not limit itself to designated meanings; it considers all artifacts and imperfections as sources of information, even if such information often remains opaque" (p.21). This book builds on ideas Offenhuber began exploring in his first book, *Waste is Information – Infrastructure Legibility and Governance* also published by MIT Press, including ideas of waste and garbage as information, and previous work on "physical and contextual displays" (p.22).

What makes autographic design distinct is the premise that data is material, and as such should be treated materially and understood in a material context. Unlike most data visualization strategies which decontextualize, isolate, transform, and translate data, autographic design emphasizes the transparency of data revealed in situ. In other words, to observe the collection of data simultaneously with its visual presentation.

To illustrate this point, Offenhuber returns to the sundial example, which by its very nature collects data—in this case, the positioning of the sun, based on the time of day, reflects the meaning and translation of that data." As Offenhuber argues, this is a measure of autographic design because it is clear to the viewer what is happening and why. Autographic design has a direct connection to data physicalization—an emerging field of data visualization that attempts to make visualizations physical and three-dimensional, citing evidence that these physicalizations have proven to be more understandable and accessible to viewers because they can "touch" the bar chart, presumably offering an opportunity to feel the difference in aggregated numbers or even disaggregate data (p.128). Connected to ideas of embodiment and embodied cognition, data physical-

ization and autographic design share some commonalities. Where they diverge is in the inclusion of data collection that is central to autographic design.

Trace phenomena is at the core of autographic design but is also incredibly fluid and constantly transforming, and as such Offenhuber acknowledges its difficulty to "pin down" (p.23). Chapter 1, *Traces and Modes of Tracemaking*, explores the definitions of tracemaking through a comparison to more contemporary and possibly familiar topics like data visualization and physicalization, affordances, and semiotics. It is through these traces that new dimensions and understanding of phenomena in the world can be better understood by more people. Because of the somewhat nuanced and often ephemeral nature of traces and trace collection, examples become increasingly instrumental and Offenhuber has no shortage of them. As evidence of material information, Offenhuber positions traces as "more than data, and their imperfections certify authenticity" (p.139). In contrast to traditional forms of data collection, traces are unaltered and untransformed, though they can be aggregated and used to create new traces and evidence. They are transparent forms of information that provide a counterbalance to the manipulation and opaqueness of traditional data forms and one of the most compelling arguments in the book. For example, Offenhuber notes a project he did with his students, whereby data related to sound and noise pollution (of sorts) in a Cambridge T station, was collected via physical interventions. First, students moved around the station to better understand how sound was impacted by the physical environment. Subsequently, through physical interventions (like dropping a coin or affixing noise-making materials to their shoes) students recorded the sound differentials relative to these augmentations. Offenhuber acknowledges the difficulty in fully and precisely documenting many types of projects of autographic design initiatives because they are ephemeral in nature and meant to be of a time and place that makes full documentation and explanation difficult, if not impossible, to fully convey as an experience and as experiential data.

Offenhuber offers a variety of ways that traces can be identified, collected, and visualized. In the chapter titled *Autographic Design Operations*, Offenhuber compares traditional strategies of visualization such as framing, constraining, and aggregating against the autographic perspective, which is effective in building on readers' existing knowledge. Offenhuber sets up this section as a "glossary for the following chapters," which "emphasize practices over outcomes..." (p.64). Even with this acknowledgment, the chapter sections at points feel thin, and in need of more elaboration or a continuous example to illustrate the points more fully. And because the chapters are not "strictly organized by these operations but roughly follow the four-part scheme of autographic design" (p.64) it can be difficult to connect these operations to larger issues of trace making and collection explored in later chapters, even with the keywords that Offenhuber offers at the beginning of each chapter. The following chapters explore methods of trace collection, including *Found Traces* (like the matted-down grass of a desired path), *Instrumentation* (such as using reverse graffiti techniques to reveal dust levels and air pollution in a busy city), and *Constructing Evidence* (capturing the path of the sun over several months in a single exposure). One of the strongest ideas to emerge from these chapters was the self-inscribing autographic design projects whereby the data is collected and revealed simultaneously to the public. But when Offenhuber states that "pedestrians appreciated that dustmarks made dust pollution visible" (p.100) it raises questions about the methods used for asking participants about what they actually learned. This becomes a larger issue for many of the projects, as it's clear what the artist and creator of autographic design learns about the data, but not as clear what those outside of the process might learn.

At times the language can be hard to penetrate, with terminology that might be difficult for the layperson to parse through (I found myself looking up many terms that were not fully explained in the text) and with some examples that lacked some luster in their translation from operation or performance to text, in part because of the inherently ephemeral nature of them; however, the overall premise of the book and the examples given were extraordinarily well constructed, articulated, and provocative. Key concepts from the Digital Humanities, such as Johanna Drucker's ideas that meaning in data is not given, but taken, and therefore should be re-framed as capta (that which is taken) could benefit from more elaboration as that seems a particularly critical premise to autographic design and one on which the externalization of data rests heavily

in this context. Similarly, as someone who works with non-visible and often hard-to-trace phenomena (like housing affordability), it was at points hard to transfer many of the examples given to a more human-centered and social context. Notwithstanding these possibly unavoidable limitations, *Autographic Design* offers an exciting and important contribution to the ever-expanding field of data and data-adjacent visualization, science, and explorations; and it offers compelling, surprising, and challenging methods for embracing much of the messiness inherent in better understanding data-driven phenomena.

1   Jeremy Crampton and John Krygier, *"An Introduction to Critical Cartography," International Journal for Critical Geographies (2005).*
2   Johanna Drucker, "Humanities Approaches to Graphical Display," *Digital Humanities Quarterly* (2011).
3   James Corner, *Taking Measure Across the American Landscape* (Yale University Press, 1996).
4   J. B. Harley, *The New Nature of Maps* (Johns Hopkins Press, 2001).