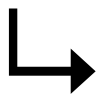


Conversations²



ON BUREAUCRACY:

A CONVERSATION WITH

ZEYNEP
ÇELİK
ALEXANDER

Melis Uğurlu:

In your recent research on the Larkin Administration Building, as well as the Kew Herbarium, you point out that the unit of data has a longer history than we presume and that phenomena such as the paper technologies of the 18th century, the botanical research of the early 20th century, and modern office-management systems all directly precede today's regime of big data. How does this longer history change our understanding of data and its relationship with architecture?

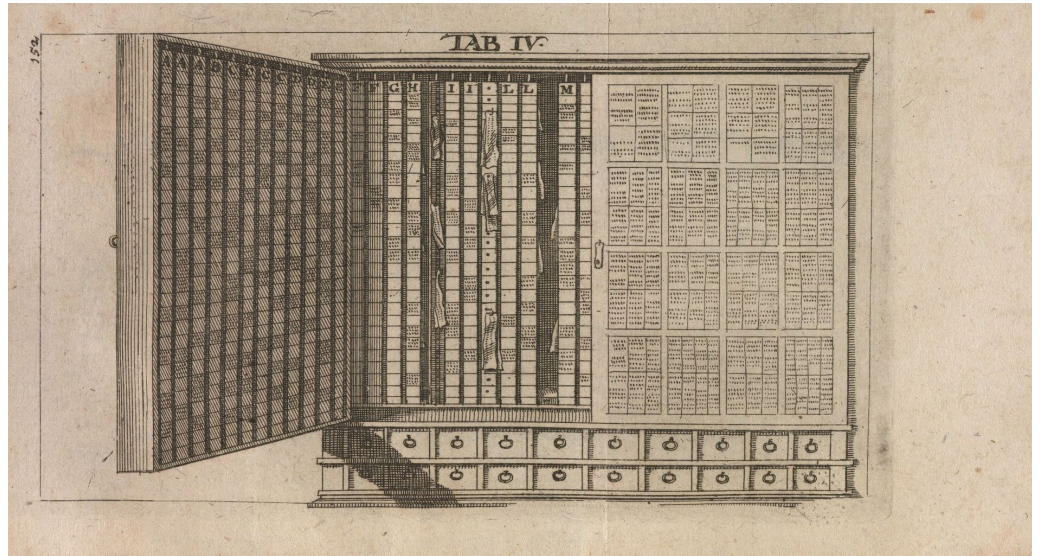
Zeynep Çelik Alexander:

Both in scholarship and popular media, the emergence of regimes of big data is frequently associated with the rise of electronic computing. That's the narrative we're given over and over again. Sometimes the argument is that our current status of information overload can be compared to the overload that occurred when moveable type was invented in the early modern period—for example, by the historian Ann Blair in her compelling book *Too Much To Know*.¹ While I welcome any attempt at historicization, I want to push back against such accounts, because these lines of thought make the predictable argument that there was a technological inevitability to the emergence of these epistemic regimes—the idea that the moveable type or the internet were the causes for the information overload that followed. I'm much more convinced by scholarship that argues that the rise of quantification in modernity had something to do with administrative and governmental forces—I'm using “governmental” in the Foucauldian sense here. I'm thinking especially of the work of the historian Theodore Porter, who has made a convincing case for the centrality of “technologies of trust” in modernity.² According to Porter, quantification—and,

1 Ann Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven, CT: Yale University Press, 2011).

2 Theodore Porter, *The Rise of Statistical Thinking: 1820-1900* (Princeton, NJ: Princeton University Press, 2011); Theodore Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, NJ: Princeton University Press, 1996).

one could add, the emergence of data—cannot simply be seen as a technological or scientific necessity, but rather should be understood as a condition required by new regimes of governmentality, forms of governing in which power had to be mediated through modern forms of bureaucracy. Architecture, I argue, has played an important role in this history both by making bureaucracy possible and by serving as its limit condition.



From Vincent Placcius, *De arte excerpenti: Vom Gelahrten Buchhalten* (Stockholm/Hamburg, 1689).

Ian Erickson:

In your work on the Kew Herbarium, you describe how the architecture of the Herbarium functions as a physical limit that pushes in on a system of archiving information, which could theoretically expand infinitely.³ This analysis of the herbarium inverts the more typical disciplinary approach of looking at a given building as a discrete object and, instead, analyzes the knowledge system that the architecture is delimiting. In doing so, you pull apart the herbarium's bureaucratic system into its logistical, technological, epistemological, and political dimensions. Given the attention you have paid to these often-invisible forces affecting architecture, why is it important to understand bureaucracy in relation to architectural scholarship and how does this approach change how we look at architecture?

Z.Ç.A.:

Yes, as I said before, in many cases, architecture presents the limit condition for these claims to infinity. This claim to infinity isn't simply an Enlightenment desire to accommodate all knowledge under a single roof; it's much more insidious than that. Historians like Carl Wennerlind—a colleague at Barnard College—have made the argument, for example, that the shift from a mercantilist economy to a political economy, in the modern sense that Adam Smith understood it, had to do with a reconfiguration of ideas of finitude.⁴ So infinity isn't an innocent term there. Wennerlind has traced political economy to the Hartlib Circle, a group of individuals obsessed with the idea of alchemy in the 17th century.⁵ The point of alchemy was to convert finitude into infinity: to turn base metals into gold or silver and to tease infinitely more value out of the existing resource.

3 Zeynep Çelik Alexander, "Managing Iteration: The Modularity of the Kew Herbarium," *Iteration: Episodes in the Mediation of Art and Architecture*, ed. Robin Schuldenfrei (London: Routledge, 2020), 1–24.

4 Carl Wennerlind, *Casualties of Credit: The English Financial Revolution, 1620–1720* (Cambridge, MA: Harvard University Press, 2011).

5 *Ibid.*

The idea of infinity is very much tied, then, to the idea of an economy that isn't limited but can be infinitely expanded—as in 18th and 19th-century debates about whether an economy should stay protectionist and impose tariffs or whether it should be allowed to open up to free trade. These ideas are still alive and well today. For example, the rhetoric of today's Silicon Valley claims that while the world's resources may seem limited, through technology, it's possible—miraculously!—to provide unlimited growth. In that sense, Silicon Valley offers alchemy for the 21st century. It's important to note that infinity isn't just the romantic veneer of these epistemic regimes; it is very much part and parcel of their ideology, which, in my understanding, is tied in with the ideology of economic liberalism, especially in its most pointedly *laissez-faire* iterations.



Herbarium, Royal Botanic Gardens Kew, 1901, addition interior view. Royal Botanic Gardens Kew, Research Collection and Library, London.

What's interesting about architecture is that even though it plays a central role in facilitating this fantasy, infinity comes up against a wall, literally, in buildings. In instances such as the Kew Herbarium or the Larkin Administration Building, claims of infinite expansion are undercut when it becomes clear that there are physical limits to the interchangeability of units on which the system's claims of expansion are based. In the case of Kew, each building that makes up the complex is designed with the aspiration that it will accommodate the entirety of the botanical universe, but that assumption is proven wrong—again and again—as it becomes necessary to keep adding new buildings to the complex. In the case of Larkin, the building is designed with the assumption that it will facilitate the arrangement and rearrangement of information, as well as of labor and equipment. The analogy here is the card catalog, whose index cards one can shuffle and reshuffle. But at the end of the day, it becomes necessary to resort to a geographical arrangement of the departments with the result that reshuffling is strictly limited. So, neither the claim of infinity nor the claim of interchangeability can be realized, precisely because of the physical limits of architecture. And let me clarify here that by “architecture,” I mean not only the buildings but also the filing cabinets, shelves, and so on. Architecture, in other words, is a physical boundary that defines the limit condition of the claims of infinity and interchangeability made by the epistemic regimes of data.

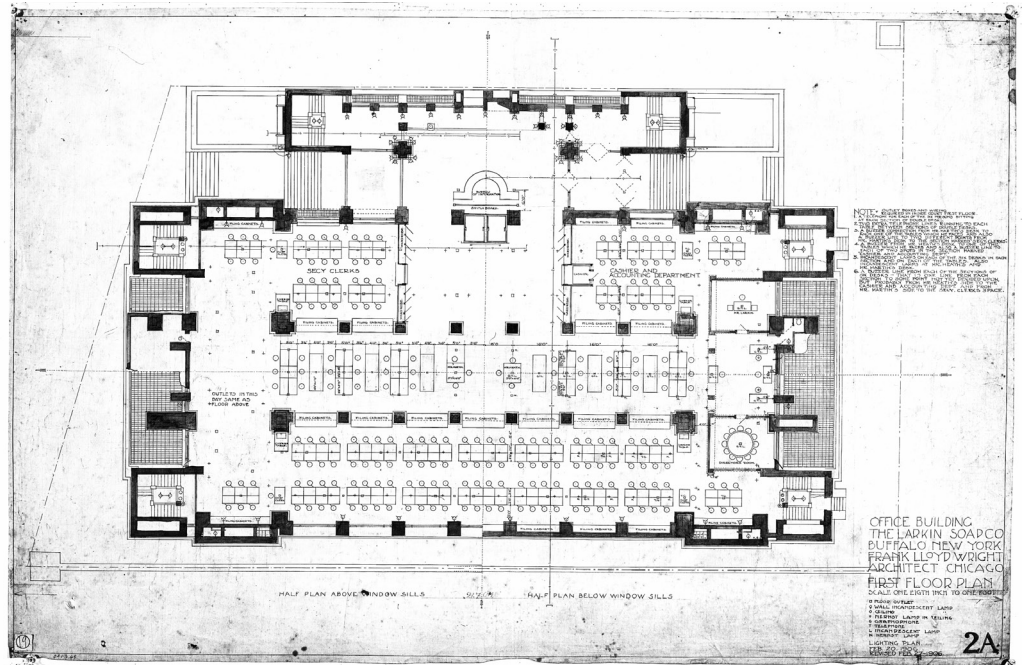
M.U.:

I'd like to draw attention to these filing cabinets, shelves, and equipment of the space. In your research on the Larkin Administration Building, you present us with a compelling relationship between the flow of paperwork and the design of space, noting that office equipment was key in directing this flow. Is it possible to think about this relationship or flow in reverse? To put it another way, has architecture ever been a measure in implementing bureaucracy or bureaucratic order?

Z.Ç.A.:

It might be worthwhile to consider the etymology of the word "bureaucracy" here. This has been noted by Ben Kafka in his book on paperwork, but also by Bruno Latour, who wrote that "the 'rationalization' granted to bureaucracy since Hegel and Weber has been attributed by mistake to the 'mind' of (Prussian) bureaucrats."⁶ Latour added: "It is all in the files themselves."⁷ Bureaucracy is not autocracy, which is the rule of one; it's not democracy, which is the rule of many; rather, it's the rule of the bureau, either a writing desk or an office space. So, bureaucracy is marked by a strange deferral of authority from humans to a space or a piece of equipment. The authority no longer rests with the monarch; it no longer rests with the people; rather, bureaucracy creates the impression that authority now emanates from equipment or space, along with the illusion that it's doing so technically, that is to say in a politically neutral manner. Already, the consideration of the etymology of the word, then, gives architecture a privileged position in considerations of bureaucracy. To put it differently, bureaucracy is a mode of governing in which desks and spaces are put in the position of running things, which of course isn't the case, but the illusion of deferral is illuminating, nonetheless. So, in that sense, yes, I would say that architecture would be the measure of this particular kind of governing and it would be a good place to look to understand how power percolates through our world.

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Frank Lloyd Wright, Larkin Administration Building, Buffalo, New York, 1903–6, plan of the main floor (0403.065, The Frank Lloyd Wright Foundation Archives [The Museum of Modern Art | Avery Architectural & Fine Arts Library, Columbia University, New York]).

6 Ben Kafka, *The Demon of Writing: Powers and Failures of Paperwork* (New York, NY: Zone Books, 2012).

7 Bruno Latour, "Visualization and Cognition: Thinking with Eyes and Hands," *Knowledge and Society: Studies in the Sociology of Culture Past and Present* 6 (1986), 28.

I.E.:

I was pleased that you brought up the historian of science Theodore Porter earlier because I'm very interested in the way that you frame bureaucracy as a "moral technology," in the sense that Porter has used the phrase, in your work on the Kew Herbarium. If bureaucracy is truly a moral technology, I think it brings up several secondary questions with which we must investigate that morality, such as, whose morals, on whose behalf, with whose power, for what purpose, etc.? Keeping these questions in mind, why is this moral framing of bureaucracy important for architecture and how far can we extend it? Are all instances of bureaucracy moralizing? Do architecture's own specific bureaucracies like contracts, order forms, licensing exams, etc., all carry with them a moral dimension?

Z.Ç.A.:

That's a great question. I wouldn't say all architecture serves that moralizing role. One could argue that historically speaking, it was at a certain Enlightenment moment when architecture took on that role in the West. To put it simply, at that particular moment, architecture became a technology that mediates ethical relationships. Porter talks about the moral technologies used by experts in the 19th century—experts such as accountants for example, who on the one hand were in the position to cook the books, so to speak, to benefit their clients, and on the other, were making these rather moral claims to being professionals who stood for the common good. This goes back to why I like to focus on the history of bureaucracy. Thinkers like Max Weber theorized bureaucracy as the sign of rationality in modernity precisely because of the way in which it sets up a political system where power is no longer in the hands of one, but rather in the hands of many.⁸ How do you do this? You set up rules and ask that everyone follow those rules. In that sense, you could say that bureaucracy is a regime of rule-following. The transparency and the public availability of those rules, however, is another matter; so is the question of whether or not everyone is in a position to follow them. Clearly not, but it's important for bureaucracy to produce that effect. In that sense, the dullness of bureaucracy is necessary.

Now, having said that, this isn't a universal condition. I would say, it was from the late 18th century onwards in the West, when architecture started offering its expertise as a moral technology of sorts and playing a more explicitly political role. It's precisely in this period that we identify with the rise of architectural modernity that architects start offering their expertise to mediate between the various stakeholders: the clients of the project, other technocrats like engineers, who also offer their expertise, developers, as well as workers and the users of architecture. This is how I was taught professional practice when I was in architecture school that architects work in the name of that elusive thing called "the public" and that an architect is supposed to be the professional, whose expertise should speak on behalf of those who aren't present at the table. In other words, architectural expertise becomes a moral technology at the moment in history when architecture takes it upon itself to benefit society at large. This wasn't a possible proposition, say in the 17th century, when architects would work for the Pope or a monarch in the West; it became a possibility only when the client changed to the so-called public.

I.E.:

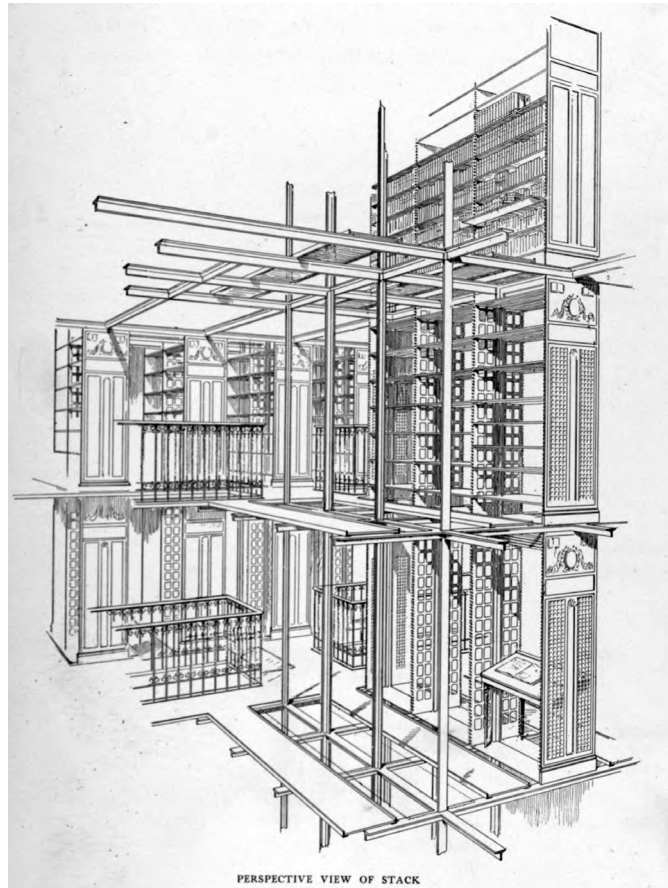
I want to transition from this conversation about bureaucracy and moral technology to what enforcing a set of standards and values allows, which is the classification of things once they're forced into a uniform format. When you describe the standard formatting of botanical specimens in the Kew Herbarium, you refer to that mode of knowledge collection and production as "homogenous empiricism." Homogenous empiricism is structured in such a way as to be immune to the theory organizing it, meaning that the method of cataloging information is decoupled from the information's future interpretation. What's the

8 Max Weber, *Economy and Society: An Outline of Interpretive Sociology* (New York: Bedminster Press, 1922 [1968]).

significance of this way of structuring information independent of an ordering system and what tensions exist between that way of structuring information and the ordering systems that are then overlaid upon it?

Z.Ç.A.:

Let me use the example of library systems, with which readers might be more familiar than they are with herbaria. It used to be, before the rise of modern systems of classification in the West, that you'd have a library with alcoves. One alcove would be dedicated to philosophy, the next one to the arts, the next to astronomy, and so on. Under this model, if you ran out of space in one section, the entire system was thrown off. Such rigid systems are sometimes called "absolute systems." The other extreme is the so-called "relative system." For example, the Library of Congress System or the Dewey Decimal Systems are relative systems, where there's no absolute anchor or core to the collection; it can always be expanded to colonize the next shelf over and so on. But all of this still needs a new architecture—a new kind of stacks made possible at the end of the 19th century by the Snead book stack system in the United States—and new indexing technologies that served as algorithms or sorts for the whole enterprise. In the Kew Herbarium, the index is the Linnaean system in the mind of the botanists. In the case of the Library of Congress, the index is arranged according to subject, geography, and so on—first, in card catalogs and later, in online catalogs like MARC.⁹



Section and plan of the north stacks at the new Library of Congress. From Snead and Company Iron Works, *Library Planning: Bookstacks and Shelving* (Jersey City, NJ: Snead & Co. Iron Works, 1908), 23–24.

9 Zeynep Çelik Alexander, "Stacks, Shelves, and the Law: Restructuring the Library of Congress," *Grey Room* 82 (Winter 2021): 6–29.

I.E.:

I'm also thinking about the support systems that allowed the Kew Herbarium to exist. The Herbarium was surrounded and supported by massive logistical networks, shipping relays, communication routes, global labor forces, and other management techniques in the service of the empire. One can see your analysis of these systems as related to a kind of emerging material sensibility in architecture in which scholars are beginning to look very seriously at supply chains, material flows, logistics, and bureaucracies that support those things. Why is it valuable to look at architecture in this way and why, particularly, do you think this emerging sensibility is happening now?

Z.Ç.A.:

Yes, this has been called the "material turn," but also goes under a number of different names. I have to admit that I'm somewhat skeptical of these particular claims to materiality for several reasons. First of all, it seems to me—and this is really on the level of simple observation—that the more one talks about materiality or materialism, in an attempt to get rid of all metaphysics, the more metaphysics seems to creep in. Take the case of art history: the more that art historians talk about the materiality of the artwork—and, again, I'm really observing this almost as an anthropologist of sorts—the more they seem to want to put art up on a pedestal as an autonomous object that seems to have a markedly different materiality than everything else in the world. Second, the desire to follow circulation flows can easily surrender to the very ideological position of liberalism that this circulatory system—frequently imagined as an organism of sorts—is also a self-regulating one. So, for those two reasons, putting too much emphasis on material flows may be a dangerous position. I know that in my work, I frequently stress circulation as well, but I hope I also make it clear that these materials didn't flow very well at all. I'm realizing now that the rise of enterprises like the Kew Herbarium coincides with the strengthening of *laissez-faire* attitudes. When networks were allowed to get looser in general, it seems, storehouses of information were needed to regulate them to make sure that the system functioned properly. This isn't to say that the Kew Herbarium functioned well at all; its homogenous empiricism wasn't that homogenous. We're not talking here about a well-oiled machine that efficiently brought things from South America to England or from England to India, etc.; the whole thing is better described as a comedy of errors. Plants died, ships sank, plantations failed to produce the desired crops. Even when things seemed to work, markets crashed. These were serious impediments to the flow, frictions in the system. The system produced more friction than flow.

M.U.:

Before we end, I'd like to talk a little bit about the discussion of objectivity and subjectivity through the widely assumed objective nature of numbers, data, and facts that are put into question by Mary Poovey in *The History of the Modern Fact*, where she argues for their interpretive nature: even though numbers are objective, they still embody theoretical assumptions about what should be counted.¹⁰ And the application of this observation can be expanded: any data that's collected presents a statement about the particular areas or conditions that were looked at to collect it, and any rule, regulation, or standard reveals the values and assumptions of those who have created it. Similarly, the absence of certain data or rule also communicates a message.

In the introduction of *Raw Data is an Oxymoron*, Lisa Gitelman and Virginia Jackson offer a fitting analogy to explain and understand all of this. They draw a parallel between photographic image and data, pointing out that, similar to how photography is about framing, selecting, and choosing where to stand and shoot, thus rendering it subjective, data should also be understood in terms of framing or being framed.¹¹ Ultimately, it's said that data requires our participation,

10 Mary Poovey, *The History of Modern Fact* (Chicago: University of Chicago Press, 1998).

11 Lisa Gitelman and Virginia Jackson, ed., *Raw Data is an Oxymoron* (Cambridge, MA: MIT Press, 2013).

which introduces subjectivity to it. To refer to Lorraine Daston and Peter Galison, the history of objectivity turns out to be inescapably the history of the subjectivity of the self.¹² So, to apply all of this to architecture, how do we see subjectivity disguised as objectivity within our discipline?

Z.Ç.A.:

Yes, you're absolutely right that things are made objective through regimes of data in ways that seem to block out subjectivity as we understand the term in everyday language. And Mary Poovey is a very important reference point here. Poovey tells the story of the modern fact through double-entry bookkeeping: I record something, you record something. It's objective as a moral technology—to use Porter's term—because we can compare them and reach a consensus. I would add to your list of very important references Michel Foucault's insight that liberalism is a particular form of governing that disavows itself—that is, the masquerading of the objective in the name of the subjective might be precisely the point.¹³ He's talking about the moment at which the idea of freedom—in the sense that you're allowed to say whatever you think—and freedom as in free trade come together. If the whole point is that you're free, you're allowed subjectivity in the name of objectivity. This masquerading of objectivity in the name of subjectivity and vice versa is part and parcel of what Foucault defined as the rise of liberalism in modernity. It doesn't suffice, then, to criticize the fact that there's an ideology to data; we also need to understand that data is posing as objective to serve subjective needs.

12 Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2007).

13 Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979* (New York: Palgrave Macmillan, 2008).

About the author

Zeynep Çelik Alexander is an architectural historian. She teaches histories and theories of architecture since the Enlightenment at Columbia University's Department of Art History and Archaeology. She is the author of *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design* (University of Chicago Press, 2017) and co-editor (with John May) of *Design Technics: Archaeologies of Architectural Practice* (University of Minnesota Press, 2020).