

## Mass Intimacy: Consumer Design by and for Dividuals by Keith Peiffer

The instrumentalization of data is a powerful, generative force that manages contemporary society by shaping the various environments we encounter every day. The Kroger Company, the largest grocery store chain in the United States (second only to Walmart in volume and sales among general retailers), owes much of its market dominance to this technocratic paradigm of administration by data.<sup>1</sup> Both the retail store and the datacentre are critical components in the architectural infrastructure of Kroger, enabling comprehensive and effective consumer modulation. While architecture is necessary to facilitate control, it is not the architect who determines the character and quality of the infrastructure of these highly calibrated retail environments; rather, consumer data is the designer of the Kroger Company's architecture.

### Administration by Data

According to Paul Virilio and Benjamin Bratton, "the production of logistical space as a Modern administration horizon" began in 1790 with the French Army of Engineers.<sup>2</sup> From its beginnings as a military innovation, "administration-by-calculation" has ascended, 200 years later, to a dominant place in everyday life.<sup>3</sup> In our contemporary control society, this managerial paradigm has extended from the military to businesses seeking to modulate consumer behaviour.<sup>4</sup>

Electronic data is the medium through which embodied people are instrumentalized by corporations. Acting through an elaborate apparatus, the big-box grocery store chain capitalizes on the body as spatially extended cyborg—a body of both "bits and atoms"<sup>5</sup>—by desubjectifying individuals in order to reconstruct them as members of a consumer subject group.<sup>6</sup> Rendered as bits of data, individuals become "dividuals" that are aggregated into abstract groups called samples and markets.<sup>7</sup>

Marketing is an "instrument of social control" designed to specifically target these consumer subjects and spur on consumption.<sup>8</sup> It has been joined with consumer data in the field of predictive analytics, where data is collected and analyzed to gain insights into the identities of consumers; such insights form the basis for the effective marketing of consumer products. The data-mining firm Dunnhumby, in conjunction with the Kroger Company, has developed a proprietary approach to predictive analytics that strives to deliver the personal connection of a mom-and-pop store while operating with the efficiency of a global big-box retailer. This approach has been called "mass intimacy."

The Kroger Company relies on the "honesty and...immediacy"<sup>9</sup> of consumer data to "get to know" its 42 million shoppers.<sup>10</sup> To achieve intimacy on such a massive scale, Kroger collects as much data as possible; the analysis of such transactional data is replacing the friendly banter between shopper and local shopkeeper, who recognizes the faces, and concerns, of his or her most frequent customers.

Mass intimacy does not concern itself with issues of privacy. Unlike paper currency transactions, credit card-based consumption makes anonymity impossible, as each swipe of the card is correlated to a specific consumer subject. The consumer is uniquely identified by the 16-digit passcode detected through a barium ferrite strip embedded in a 3¼-by-2¼-inch piece of plastic. Since they are linked to a specific consumer, the particulars of each transaction—time of day, frequency, type of items, location of purchase, etc.—achieve greater significance. By looking at the transaction patterns of consumers over time, Dunnhumby identifies important trends and preferences of consumption. Notably, retailers like Kroger have crafted especially innovative modes of data collection that conceal the specific instances of this surveillance while simultaneously reframing them as a service to their customers.

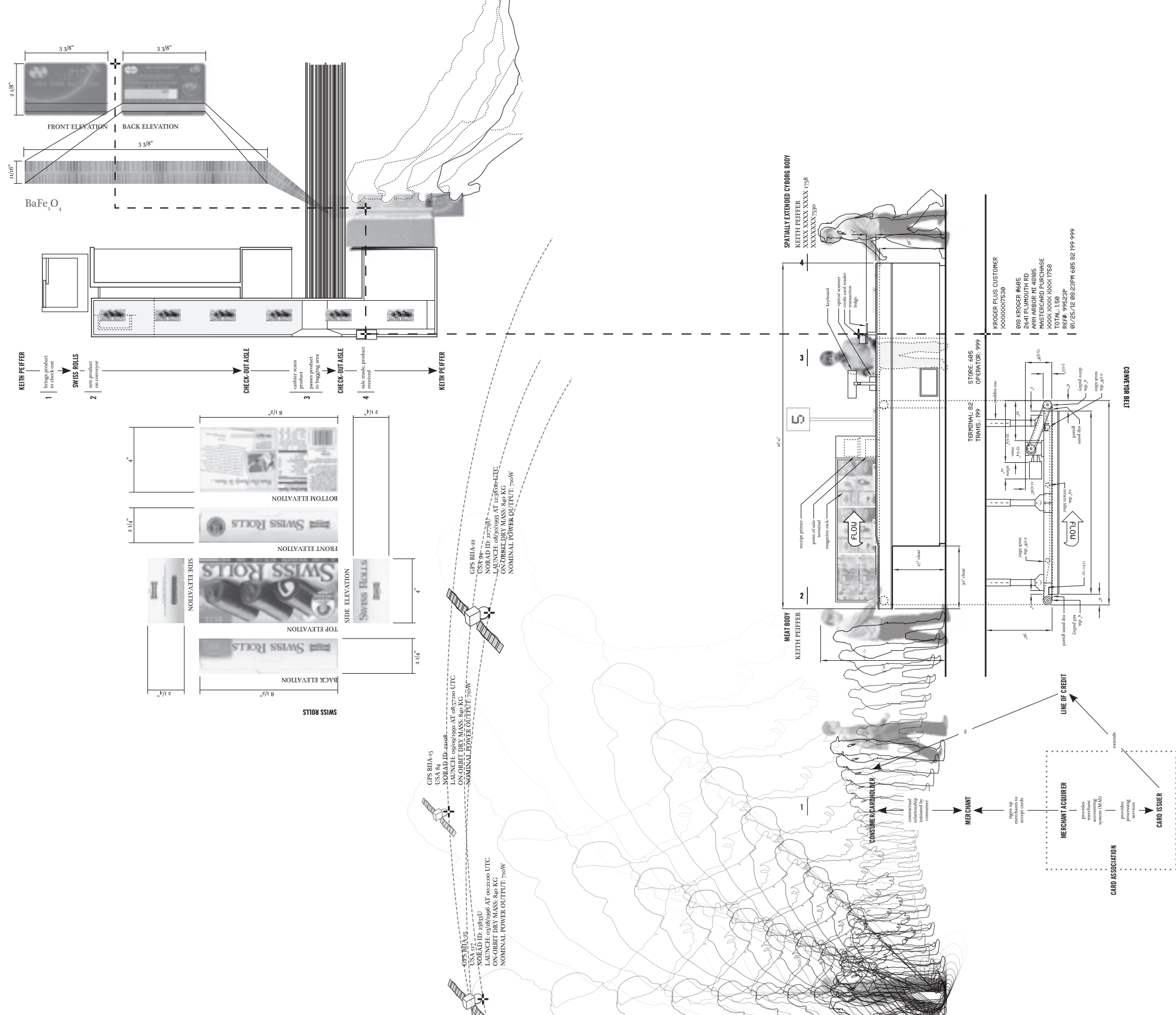
As William Burroughs suggested in his influential essay on control societies, effective control is a delicate balance of trying to achieve as much influence as possible without resorting to complete authoritarianism, which could lead to a rejection of the system of control.<sup>11</sup> Seamless, unnoticeable tracking is key; information regarding 40 billion purchases in Kroger stores during four billion unique shopping trips is collected through point-of-sale equipment, credit card terminals, and Kroger Plus loyalty cards in an opaque process of which most people are unaware.

By analyzing this data of dividuals, Dunnhumby and Kroger have derived seven main sample groups; these are broad shopper segments with titles like "budget," "family-focused," and "watching the waistline."<sup>12</sup> Strategic "persuasions and concessions"<sup>13</sup> are directed toward these group subjects that encourage consumers to comply with control because it *appears* mutually beneficial. For example, Dunnhumby and Kroger have developed the Loyal Customer Mailer (LCM) coupon program as "truly a one-to-one communications vehicle—delivering 9.5 million unique versions to 9.5 million customers several times throughout the year."<sup>14</sup> The LCM is tailored from customer data to offer coupons that are relevant and personalized to each shopper, achieving a peculiar intimacy between customer and corporation. Coupon redemption rates and returns on investments in coupons have risen rapidly since the introduction of the LCM in 2005.<sup>15</sup>

### A Container for a Body

Despite the prominence of data, architecture remains significant for big data corporations like Kroger; in fact, it is critical for the achievement of an optimal LCM interplay. Local retail stores, corporate headquarters, distribution centres, manufacturing facilities, and datacentres are all material instantiations of the immaterial data body that modulates the consumer. Collectively, the architecture of the Kroger Company is the site of \$82 billion in sales per year. To move people, products, and money on such a massive scale, in such a short time, Kroger's designs act more as conduit than container, blurring the lines between infrastructure and architecture.<sup>16</sup> For example, Store #605 in Ann Arbor, Michigan and Datacenter101 in Columbus, Ohio, both serve as channels for flows, but these two different types of architecture perform in very different ways.

Store #605 evinces an architecture designed especially for the flow of corporeal bodies. Sensor-activated automatic sliding doors respond to the approach of the human body to regulate the movement of people in and out of the architectural enclosure. Its exterior envelope and building systems offer a dry, well-lit, and well-tempered environment





for comfortable accommodation of the physical body. With many products that meet basic human needs, the commodities themselves also directly impact the physical body and its relative health, influencing weight, cholesterol levels, energy levels, caffeine levels, arterial clogging, etc.

In Store #605, the individual exists as a person within a body of flesh moving through time and space and is fully contained by architecture for completing certain transactions. Datacenter101, however, is evidence that a single building cannot hold the individual strolling through Store #605. While the datacentre requires a handful of people<sup>17</sup> to operate the facility, it is an architecture designed especially for the data portions of millions of bodies. Individuals linger in these spaces as individuals, thereby simultaneously occupying radically distinct spaces. Individuals traveling as radio waves or electrical pulses penetrate the architectural enclosure, although not through the typical thresholds or apertures derived from the dimensions of the physical body. This architecture is a conduit for the storage and retrieval of data.

The interior is a highly controlled environment, but it is not designed to accommodate physical comfort based on the psychometric chart; at Datacenter101, the concern is the protection and optimization of the servers. The interior layout is determined by the modules of 42-inch-deep server racks, with alternating hot and cold aisles on either side of them. Cool intake air is pulled in from the cold aisle, heated up as it moves through the servers, and discharged as hot exhaust air in the hot aisles. Aisle widths are carefully calibrated to optimize cooling and heating, and a flexible, raised-floor system allows for the efficient movement and delivery of conditioned air.<sup>18</sup> Building systems are highly redundant and reliable, rivalling the sophistication of those used in life-critical architecture like hospitals. Two separate power feeds from two different utility companies enter the building from opposite ends. An on-site diesel generator functions as the third of the “three independent power sources” and is sized to carry 100 per cent of the electrical load.<sup>19</sup>

The datacentre is a functional architecture of protection with little concern for aesthetics, as it receives very few physical visitors. Maintaining secure access to the data is of primary concern in these facilities. Datacenter101 uses “a multi-layered approach to access control” that begins with a gated entrance and includes “key card access, pin code entry, scramble pad, biometric screening, true mantrap design, and CCTV/DVR monitoring.”<sup>20</sup> At Datacenter101, the individual exists as bits of data housed in technical equipment and available for itinerant access. The individual will remain in this place until the server is decommissioned.

#### The Products of Data

In the same way that the bits and atoms of the body are inseparable, the retail store and the datacentre are inextricably linked as a conduit within a single architectural infrastructure. While it is immediately obvious that the datacentre is a product of the collection of data, the local retail store architecture of Kroger is just as much so because the insights gained from data analysis provide constant feedback into the details of the retail architecture. Ultimately, Store #605 is a packaging machine that communicates through the construction of experience, an extension of the packaging and branding of products, and continually redesigned to sell even more.<sup>21</sup> In this way, architecture becomes a tool for modulation, creating a compelling consumer experience as a form of control.

Control is a situation that is self-perpetuating, as Burroughs well knew: “Once embarked on a policy of control, the leaders must continue the policy as a matter of self-preservation.”<sup>22</sup> Big-box tectonics follow the logic of the market, while signage and branding are layered onto “blank, expressionless containers”<sup>23</sup> to create the aura and experience around the banal architecture of the warehouse. In Kroger’s architecture, production and consumption overlap within the same logic. Kroger fulfills the prophecy of Archizoom’s No-Stop City by creating, in Pier Vittorio Aureli’s words, a bad infinity “in which human associations are ruled only by the logic of economy and rendered in terms of diagrams and growth statistics.”<sup>24</sup> Like No-Stop City, Kroger’s architecture “has ensnared humanity within the logic of indefinite growth as a means of development, constantly aspiring to the new and different, and thereby forcing humanity to identically repeat its own condition.”<sup>25</sup> The consumers within Store #605 help construct this bad infinity with every swipe of their credit cards.

Shelves, barcode scanners, checkout lines, signage, floor materials, shopping carts, product packaging, credit cards, and currency are all elements of a carefully considered architecture that facilitates transaction. Many of these fall outside of the traditional purview of the architect, but they are incredibly consequential aspects of retail space and facilitate the production of consumers as subjects. Through their data collection and analysis, Kroger and Dunnhumby have accommodated combinations of mass consumers as samples (the seven shopper groups previously mentioned) by creating five store prototypes: “value,” “upmarket,” “Hispanic,” “mainstream,” and “family.”<sup>26</sup> Each one features a flexible space that can expand or contract in square footage as needed to accommodate programmatic elements. All of the special services for the store (sushi bar, Starbucks cafe, bakery, etc.), determined through data analysis, are clustered together within this space. The specific character of each store is thus evident upon entry. In this way, programmatic selection, distribution, and adjacencies are a direct result of demographic and transactional data.

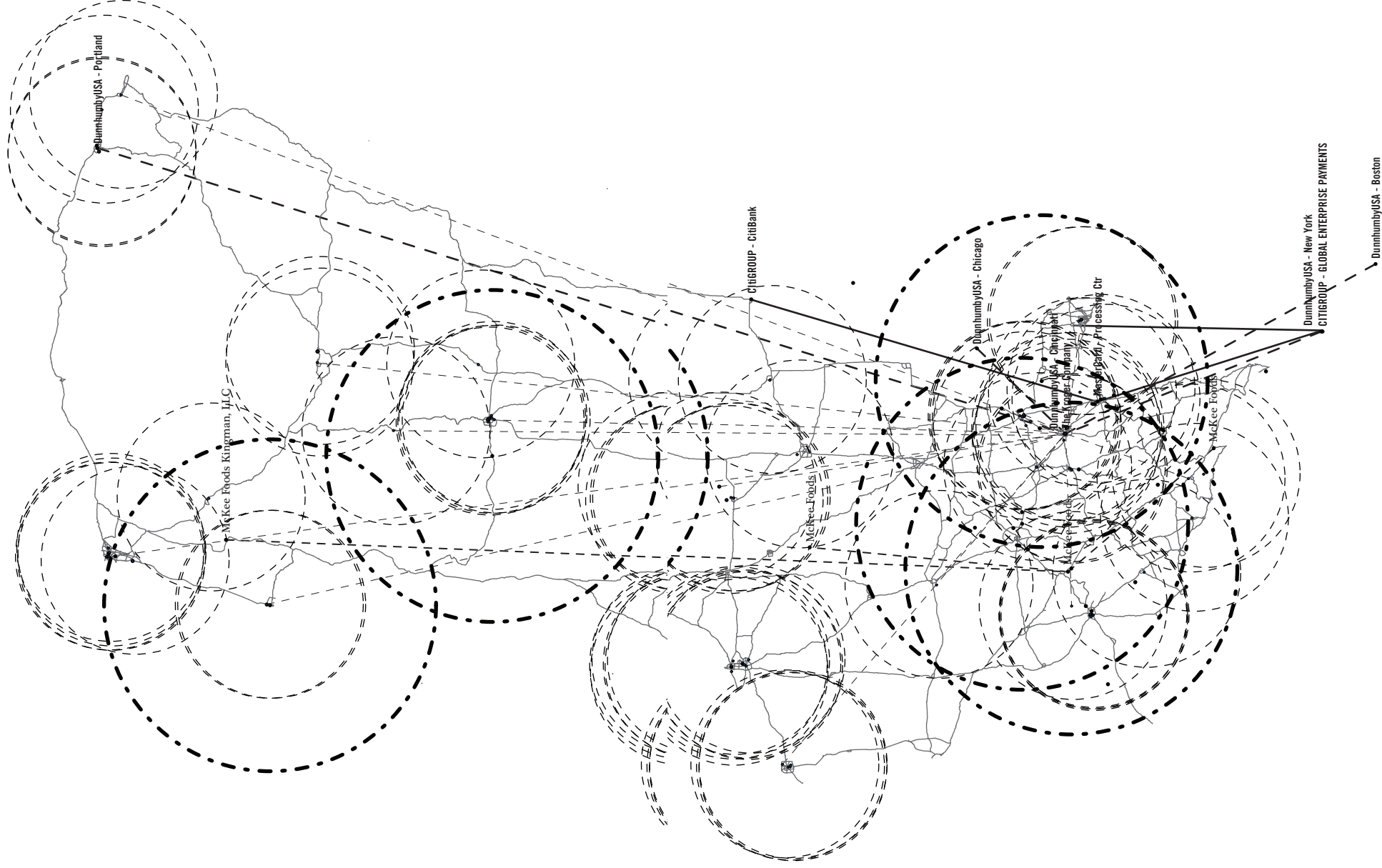
Even the most mundane infrastructural components of the Kroger Company are highly dictated by data. Radii and catchment areas are key in determining placement. Each element is connected to corporate headquarters through both data transfers and the movement of products, over wires, cables, and highways. Zip code profiles within the ideal radii of 2–2.5 miles<sup>27</sup> are cross-referenced with Kroger stores 688, 707, and 605. The store prototypes and the services they offer are a direct reflection of local demographics.

#### Data-Agency and the Technocratic Limit

As an architect, I have greater agency over the architecture of the grocery store as I swipe my credit card than I could ever have with my professional stamp. Insights from “honest” data have supplanted the experience and expertise of architecture as a professional discipline, and the habits of consumers have become the new architects for consumable reality. Predictive analytics provide seemingly unquestionable insights from real data to inform decisions about lighting concepts, materials and finishes, adjacencies of programmatic elements, product inventory and selection, shelf layout, and program elements.

Practicing architects have relied on their cultural role as intellectuals who offer “informed judgment”<sup>28</sup> to make thousands of decisions throughout the design and execution of a building. The promise of objective data assaults professional agency by replacing educated and experienced judgment (aesthetic or otherwise) with immutable





“truths” derived from numbers.<sup>29</sup> While the Kroger Company intensifies the agency of data for producing architecture, grocery retail environments are not the only architecture designed by data-streams. The impact of this paradigm is far-reaching; because architecture is inextricable from the logic of the market, clients are always looking for ways to reduce their risks when investing in the building of a structure, and data analysis leads to seemingly sound business decisions.

The discipline has responded to this technocratic paradigm by attempting to establish legitimacy for the work on its own terms. For example, architecture’s current fetish for info-graphics and mapping enrolls graphical representations of data to “prove” the efficacy of the design. Contemporary architects unwittingly agree to use data both as a generator for design and a justification for design decisions. We must recognize this prevailing paradigm of administration-by-data as a powerful force in the production of architecture before we can intelligently form a response to it.

Burroughs recognized the inevitable advancement of a control apparatus. In an effort to prevail in intensely competitive markets of low profit margins and shifting consumer loyalties, corporations will surely continue to approach the limits of control in an effort to protect their fragile positions of relative advantage. However, the very processes of sophistication and proliferation of a control machine make it increasingly vulnerable. By understanding architecture’s relationship to the excesses of the spatially extended data body, architects can work to produce dissident interference rather than compliance, emboldening the agency of design for future cultural productions.✕

## Endnotes

- 1 The Kroger Company, *2010 Fact Book* (Cincinnati, OH: The Kroger Company, 2010), 1–56.
- 2 Benjamin Bratton, “Introduction: Logics of Habitable Circulation,” in *Speed and Politics*, Paul Virilio, trans. Mark Polizzotti (Los Angeles: Semiotext(e), 2006), 12.
- 3 Ibid.
- 4 Gilles Deleuze, “Postscript on Control Societies,” in *Negotiations, 1972–1990*, ed. and trans. Martin Joughin (New York: Columbia University Press, 1995), 177–182. In 1992, Deleuze identified his own time as one in which “control society” was replacing Michel Foucault’s “disciplinary society.” Two decades later, we find ourselves fully engrossed in this control society. In each of their respective epochs, these societal paradigms have had significant implications for the structure of everyday life in Western society, defining the interplay between institutions, people, architecture, and material culture on such a vast scale that it becomes difficult to step outside of their purview. In the shift from a disciplinary society to a control society, the business replaced the factory as the dominant institution of power. Both factories and businesses construct interactions between people and institutions—the factory is concerned with confinement, while the business deals with modulation.
- 5 William J. Mitchell, *Me++: The Cyborg Self and the Networked City* (Cambridge, Mass.: MIT Press, 2004), 3.
- 6 Giorgio Agamben, *What is an Apparatus? And Other Essays*, ed. David Kishik and Stefan Pedatella (Stanford: Stanford University Press, 2009), 1–24.
- 7 Deleuze, “Postscript,” 177–182.
- 8 Ibid., 181.
- 9 Martin Hayward, *Any Colour You Like, As Long As It’s Any Colour You Like* (Dunnhumby, 2009), 12.
- 10 According to Dunnhumby, in 2009, 42 million people held Kroger Plus loyalty cards.
- 11 William Burroughs, “The Limits of Control,” in *Schizo-Culture*, Vol. 3, ed. Sylvère Lotringer (New York: Semiotext(e), 1978), 38–42.
- 12 Hayward, *Any Colour*, 19.
- 13 Burroughs, “Limits,” 38–42.
- 14 John Butler and Mark Wilmot, *On Relevant Communications* (Dunnhumby, 2010), 14.
- 15 Ibid.
- 16 Jesse LeCavalier, “All Those Numbers: Logistics, Territory and Walmart,” *Design Observer*, <http://places.designobserver.com/feature/walmart-logistics/13598>.
- 17 As a comparable facility, the 125,000-square-foot datacentre built by Walmart in Jane, Missouri requires 15–20 people to operate.
- 18 See <http://www.42u.com/cooling/hot-aisle-cold-aisle.htm>.
- 19 See <http://www.datacenter101.com>.
- 20 Datacentre101, <http://www.datacenter101.com>.
- 21 Studio Sputnik, *Snooze: Immersing Architecture in Mass Culture* (Rotterdam: NAi Publishers, 2003), 1–10.
- 22 Burroughs, “Limits,” 38–42.
- 23 Andrea Branzi, *No-Stop City: Archizoom Associati* (Orleans: HYX, 2006).
- 24 Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge, Mass.: MIT Press, 2011), 20–21.
- 25 Ibid.
- 26 Hayward, *Any Colour*, 26.
- 27 Dunnhumby, *Fact Book*.
- 28 Dana Cuff, *Architecture: The Story of a Practice* (Cambridge, Mass.: MIT Press, 1992), 102–103.
- 29 See Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton: Princeton University Press, 1995).

## Bio

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