LE CABINET D'HISTOIRE-GEO • LE QUARTIER D'AFFAIRE LA FONTAINE • LE MÉRIDIEN • L'EXPOSITION UNIVERSEL • LE MUR • LE MAGASIN DE BRICOLAGE • LES RÉSERVES D MUSÉES • L'AGENCE Sous la direction de PRISON • LE BAR • Michel Bussi Alle • L'EPHAD • THÉÂTRE Martine Drozdz et Fabrice Argounès

BAINS-DOUCHES • LE PAVILLON • LE MÉMORIAL • LA COU DE RÉCRÉATION • LE CIRCUIT AUTOMOBILE • LE PARC THÈMES • LE LOFT • LE GOLF CLUB • LA MONTAGNE • L'ÉF CERIE • LA RUE DE LA SOIF • LA GARE ROUTIÈRE • LE SQU/

NOS LIEUX COMMUNE CONTEMPORAIN

fayard

Sous la direction de Michel Bussi Martine Drozdz et Fabrice Argounès

Nos lieux communs

Une géographie du monde contemporain

Traductions par Chris Mizes, Clarisse Boutin-Duquesnoy et Baptiste Rinner

Fayard

La sensation et la réflexion que suscitent les lieux ou les objets sont indépendantes de leur valeur culturelle et l'hypermarché offre autant de sens et de vérité humaine que la salle de concert. *Annie Ernaux, Journal du dehors, 1993.*

The Amazon Warehouse

Over the last two decades, shopping online has largely replaced shopping in-person. Today, shoppers in need of a new cell phone charging cable are likely to go online and sort through hundreds of options for length, color, and type from dozens of international brands. Once a selection is made, they can even choose how quickly they would like to receive it. Hassle-free packaging? Gift wrapping? If you add another item, you'll qualify for free same day shipping. Don't want it today, what about tomorrow? Next week? What time of day?

In the digital marketplace, Amazon.com has become globally dominant. The company emerged as a market leader in the predictive logistics that determine what to stock, where to stock it, and how to deliver it directly to customers' homes. Amazon.com has even gone so far as to promote items located in nearby warehouses. To shoppers, the entire transaction appears simple, straightforward, and convenient. Yet behind the computer screen—even before one hits "buy"—a set of proprietary technologies ensure the seamlessness of the online shopping experience. Although the company's logistical cunning may at first appear immaterial and placeless-operating somewhere, perhaps in an amorphous digital "cloud"-it is undeniably concrete. Warehouses are the tangible places through which Amazon.com's digital platform coordinates the pre-sale, sale, and post-sale logistics that ensure the speedy delivery of millions of customers' precious charging cables. The warehouse is a common place of this century's digital market revolution.

Amazon.com represents nearly 40% of all e-commerce sales in the United States and nearly 15% of ecommerce sales globally. Behind any purchase on their site lies a warehouse that grounds a transnational, trans-oceanic circulation of supply chains, cloud-based management networks, distribution hubs, robotic and algorithmic digital organization systems, delivery vans, and human labor to ultimately deliver that package. Making this complex system appear simple and easy-to-use means concealing it in the peripheral, backend of logistical infrastructure, warehousing, and delivery vehicles that facilitate mundane market transactions, reprogramming everyday life in ways that extend far beyond shopping. Indeed, this shift towards the warehouse has moved the physical space of the marketplace away from the downtowns and neighborhood-based high street retail shopping that once dominated.

Amazon.com has turned the warehouse into an increasingly common place by connecting its proximate and distant logistical spaces that move physical goods and information in tandem. Through the seemingly simple act of delivering a package, digital logistics have transformed where and how market exchanges take place. Far from the market hall or the mall, the Amazon.com marketplace is an orchestrated string of digital encounters: hours after clicking "buy", a ding on your smartphone notifies you that your cable is 10 stops away; moments later, another ding notifies you that your Amazon.com-powered Ring doorbell camera detected motion; another notification coincides with the doorbell ring; and then again another alerts you that the delivery driver took a picture at your front door as proof of delivery. Effortless and just-in-time shopping at Amazon.com has reworked the geography of retail shopping for consumer convenience and corporate profit. From the warehouse, Amazon's digital services seep into the city, transforming how we shop and, more generally, how we go about our days.

From the outside, the Amazon.com warehouses look unremarkable. They are squat, anonymous buildings surrounded by asphalt parking lots near major freeway exchanges. A constant stream of tractor trailers come and go from delivery docks, while the inside contains a robotic fulfillment center. These robotic cores are considered by many to be the pinnacle of warehouse efficiency and are made possible by cutting-edge digital technology and labor practices. The workers inside the Amazon.com warehouse operate in tandem with organizational managers, software programmers, and hardware designers to manage the flow of a vertiginous array of contemporary commodities. Each movement is orchestrated by millions of digital bits of information. Circulating on the silicon microchips of warehouse robots and data servers hidden elsewhere in the world, this information is the raw material used to manage the delivery of commodities across unprecedented scales.

A typical Amazon.com warehouse contains about 1,500 employees. They work in a windowless facility the size of ten to thirteen football fields. They process tens if not hundreds of thousands of packages a day. The interconnected systems that comprise the backbone of an Amazon.com warehouse maximize costefficient distribution from production facility to fulfillment center and then to customers' doorsteps. Worldwide, over 500,000 Amazon.com robots move in harmony with 1.3 million human workers, all orchestrated by Amazon.com digital services. In many locations, the high-pitched whine from the electric motors of Pegasus and Proteus robots fill the warehouses as they transfer stacks of products to the right location.

In the warehouse—as well as beyond it—Amazon.com's commands its vast logistical network with artificial intelligence. Amazon's artificial intelligence-powered Amazon.com Web Services (AWS) cloud computing platform orchestrates and monitors this entire process automatically, including coordinating the movement of goods by airplane. Amazon.com's Prime Air delivers to its warehouses via airport cargo hubs, which often have their own delivery stations, fulfillment centers, and regional sorting facilities. Although it is by far the youngest shipping airline, Prime Air moves more cargo though some U.S. airports than FedEx and UPS. Amazon.com also uses artificial intelligence in their delivery trucks. Cameras linked to the Amazon A.I. surveil delivery drivers at all

times: yawning while driving automatically triggers a required 15minute break.

But this additional surveillance comes with less pay compared to other prominent delivery companies. Warehouse workers and delivery drivers earn around U.S. \$18 an hour under grueling conditions, still only half of what their unionized predecessors earned when working local manufacturing jobs in the early 2000s. The profit-fueled competition among e-commerce firms means a race to the bottom for workers everywhere. Meanwhile, firms rely on and exploit the carcass of hollowed out industrial cities to create logistical hubs that make possible the conveniences of online shopping. These are the necessary preconditions for maintaining the choreography of an absurdly diverse selection of mundane commodities like charging cables. They are the infrastructures that allow Amazon.com to predict how many Purple 2meter Braided USB-C to USB-C 65W charging cables might be needed in each region of the world at any moment. It is what allows them to robotically move the cable to a warehouse worker, to discipline this worker into placing each cable carefully in the right box and the right van, and to ensure enough panoptical surveillance that an exhausted, underpaid delivery driver arrives right on time at your door.

Dillon Mahmoudi and Alan Wiig

To go further :

Liebel, Tom. 2006. *Industrial Baltimore*. Arcadia Publishing Library Editions.

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To go elsewhere :

l'usine (p. <u>115-118</u>), la poste (p. <u>110-114</u>), le data center (p. <u>380-384</u>), le méga-bazar (p. <u>462-465</u>), les puces (p. <u>370-374</u>), les halles (p. <u>147-150</u>), l'aire de poids lourds (p. <u>304-307</u>)