The Drawer of the Digital Age

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"If I put a picture in a drawer, does the drawer represent something?"[1]

[1] Edmund Husserl, Phantasy, Image Consciousness, and Memory (1898-1925), trans. John Brough, *Husserliana: Edmund Husserl – Collected Works* vol. 11 (Springer, 2005), 23.

Introduction

This essay not only distinguishes between the drawer of physical archives and that of digital archives but also elevates the drawer to a more abstract, structural metaphor. Within this framework, it allows for the coexistence of physical and digital archives. In other words, the archive drawer in the digital age should be understood as a structure that spans both the material and the virtual. By defining this framework and using it as an interpretive tool, particularly for exploring the tensions inherent in its duality—it offers a unique perspective for examining a range of issues related to archival repositories in the digital age.

The advent of the first commercial computer in 1951 marked the beginning of the digital era. Since then, digital technology has been widely adopted across various fields. For archives, its adoption serves two main purposes. The first purpose is to extend the life of physical holdings.[2] Physical archives have a finite lifespan, and each instance of access contributes to the deterioration of materials. This kind of deterioration is even more frustrating than the destruction caused by fire, floods, earthquakes, or war, because we must recognise that using archives inevitably contributes to their deterioration. Once archives are damaged or altered, it may affects our understanding of them. Digitisation eliminates this form of damage by providing a durable alternative. Once digital copies are available, archives typically reduce access to the original documents to prevent their complete deterioration, eventually sealing them off entirely. The second purpose is to make archives accessible without spatial limitations. A research shows "a dramatic decrease in access requests for original documents immediately after the digital images are released."[3] To some extent, this suspends certain functions of the archival building. The ability to access archives without physically visiting their location means that individuals are no longer directly confronted with what Derrida describes as the violence inherent in the archive as its first figure.[4]

However, this does not mean that violence is no longer present. Instead, the archival building becomes a symbolic remnant of violence that has already occurred. Much like the square built on the former site of the Bastille evokes a retrospective sense of feudal oppression, the suspended archive continues to anchor the origins of a newly imagined, network-based institutional framework constructed through digitisation. Its architectural form gestures toward a violence that always retains the potential to return.

Here, we arrive at a fundamental dialectic. On the one hand, the original archive and its physical building lean toward closure and sanctification. On the other hand, the digital archive continuously replicates and opens itself. Ontologically, the impact of digitisation extends beyond the materiality of the archive itself. Digitisation is not merely a functional transformation; it reshapes the structural relationship between the archive, the viewer, and the viewing field. Moreover, we must recognise that although physical and digital archives occupy distinct fields, any attempt to interpret the production, expansion, replication,

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[2] Smithsonian Institution Archives, "Digital Curation," Smithsonian Institution Archives, April 27, 2017, https://siarchives.si.edu/what-we-do/digital-curation.

[3] Sarah VanSnick and Kostos Ntanos, "On Digitisation as a Preservation Measure," *Studies in Conservation* 63, no. sup1 (August 2018): 282–87, https://doi.org/10.1080/00393630.2018.1504451.

[4] Jacques Derrida, *Archive Fever : A Freudian Impression*, trans. Eric Prenowitz (Chicago: University Of Chicago Press, 1996),

contraction, dissolution, merging, or conflict of these fields must return to the tension between physical and digital archives. Hence, it becomes necessary to revisit the concept of the drawer.

Let us begin with Husserl's drawer for storing physical documents. Husserl reminds us to distinguish the image in consciousness from the object it intends.[5]Following this line of thought, we must acknowledge that the picture inside the drawer cannot generate any meaning on its own, as the drawer, functioning as a physical barrier, prevents sensory engagement by the viewer. At this point, the form of the drawer holds no symbolic significance. Placing the same picture in a green or black drawer does not alter how it appears in consciousness. However, the case is different for archives. Once a text or image is defined as an archive, it acquires inherent intentionality. Defining this process involves selection, categorisation, and control. Ariella Azoulay notes that "the process of archiving is accompanied by a rich array of accessories and mechanisms serving as sentinels."[6] These mechanisms ensure that archives, from their very inception, bear traces of power's intervention, which may be termed the original sin of the archive. Consequently, the drawer storing archives inevitably carries visible marks that distinguish it from other drawers. Much like hearing terms such as cookie tin, LEGO storage box, or computer case prompts certain assumptions about their contents, encountering an archival drawer preconditions the viewer to construct meaning before even opening it. In other words, when it comes to archives or any defined picture, the answer to Husserl's question must be affirmative. At this point, what the drawer represents overlaps to some extent with the meaning of the archive itself.

For physical archives, the concept of a single drawer must be expanded to encompass the architectural form of the archive building as a whole. The archive space itself can be regarded as a larger drawer, a nested structure in which drawers not only house archives but also contain other drawers filled with archives. This new mode of encoding meaning invites comparison with an ancient mnemonic technique known as the Method of Loci. It requires one to first imagine a familiar space, such as a home, and then identify a series of landmarks within it—for example, tables, chairs, doorways, and windowsills. Next, one must mentally associate the materials to be remembered with these landmarks. Once these steps are complete, recalling the location of each landmark enables the desired memory to resurface.[7] From this perspective, the materiality and structural organization of the archive building can no longer be described purely in objective terms. Entering an archive evokes a strong associative impulse, linking the attributes of the archive to the symbolic meanings embedded in the building within one's consciousness. The act of visiting an archive transforms into a ritual, repeatedly reminding us of where we are, what is stored here, and what it signifies.

Walter Benjamin attempted to articulate this sensation through the concept of "aura"[8], asserting that the authenticity of an artwork is a prerequisite for the emergence of this aura. However, this principle has been challenged in the digital age. The relationship between the

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[5] Husserl, *Phantasy, Image Consciousness, and Memory*
[6] Ariella Azoulay, "Archive," *Political Concepts: A Critical Lexicon*, no. 1 (July 21, 2017), http://www.politicalconcepts.org/archive-ariella-azoulay/.
[7] Paul Virilio, *The Vision Machine*, trans. Julie Rose (Bloomington, Ind.: Indiana University Press, 2007), 3.
[8] Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction* (London: Penguin, 2008).

original and its reproductions has grown ambiguous, and the importance of authenticity is fading. Ironically, it was positivists who first abandoned the notion of authenticity. Positivists tend to trust technological rationality and believe that as long as digital reproductions are highly precise and accurate, they are more reliable. Digital archives are not only more accessible but can also be magnified, enhanced, and applied more analytical approaches. Freddie Pegram gives an example. He said "in May 2020, the Rijksmuseum published a photograph of Rembrandt's The Night Watch in "hyper-resolution". It is a staggeringly detailed image which allows viewers to zoom in to the work and see the traces of individual brushstrokes."[9] This level of detail, enabled by digital technologies, transforms how archives are perceived and experienced. In other words, the meaning of authenticity has shifted. It has been stripped from its original context and now functions merely as a point of reference for digital archives. As a result, the original has come to depend on its digital copies to maintain its relevance and research value.

A paradox in biological cloning offers an illuminating analogy: if one seeks immortality through organ transplants from clones, the survival of the original becomes dependent on the continuous creation of clones. This analogy invites reflection on a Hegelian master-slave dialectic: whether reproductions possess the same value as the original or are reduced to mere resources. In this example, the self no longer exists as an independent life form but is reduced to a mechanism sustained through reproduction and replacement. The same applies to archives. While the original archive initially holds a natural superiority and dominance over the digital archive, it now finds itself enslaved by the very technologies designed to preserve it. Therefore, if a highly abstract drawer is able to accommodate a collection of both physical and digital archives, it inevitably becomes a site where authority and authenticity are continuously renegotiated and redefined. The authenticity of the original is used to validate the legitimacy of the digital archive, while the digital archive, in turn, sustains the sublime status of the original in the Zizekian sense.[10] As noted earlier, in the digital age, certain functions of the archive building have been suspended, creating a kind of distance between us and the sanctified original archive.

In contrast, the distance between us and digital archives is almost nonexistent. Anne Friedberg describes the screen as both opaque and transparent—a flat surface that enables deep virtual access to databases.[11] Information accessed through the screen seems direct and flat, yet conceals a deeper rupture beneath its surface. The transition from the nested space of a drawer to a flat surface can be understood as a process of compression. For physical archives, order depends on classification, labelling, and physical arrangement. Archives exist as stable objects stored in specific spaces and sequences. Digital archives, however, compress and digitise massive volumes of paper into digital storage media, achieving unprecedented efficiency. A single box can now store information millions of times greater than before. This efficiency comes at the cost of the original order and ethics of archives. Compression is not only a reduction but also a distortion of time and space. Achille Mbembe's perception of

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[9] Freddie Pegram, *"Damaged & Destroyed :Three Stories of Preservation and Loss from the PMC's Photographic Archive Spotlight Feature by Freddie Pegram,"* Paul-mellon-centre.ac.uk, 2020, https://www.paul-mellon-centre.ac.uk/archives-and-library/damaged-and-destroyed-conclusion.

[10] Slavoj Žižek, *The Sublime Object of Ideology* (London: Verso, 1989).

[11] Anne Friedberg, *The Virtual Window : From Alberti to Microsoft* (Cambridge, Mass.: Mit Press, 2006), 19.

physical archives, that a montage of fragments creates an illusion of totality and continuity[12], remains applicable in the digital environment, even stronger. The process of digital compression further reinforces this illusion.

In digital environments, the principles of archive organisation shift from continuous physical stacking to instantaneous retrieval and dynamic invocation. We no longer navigate physical spaces to find specific archives. Instead, archives appear instantly at the click of a button. The categories and tags on web pages are not true classifications. In data centres, digital archives are stored in compressed and mixed forms on servers. Only when users issue commands, such as clicking a mouse, are specific pieces of data extracted and organised by algorithms. In contrast, for physical archives, the labels on drawers provide clear directional guidance. Opening a specific drawer following its label yields the desired document. The arrangement logic of data in electronic media is chaotic or, at the very least, follows a different paradigm. This shift further dismantles the hierarchical structure of physical archives.

Furthermore, the speed makes digital archives are more susceptible to theft and appropriation. Examples like Wikipedia have shown us that confidential archives may exist simultaneously in secure national data centres and dirty basement servers in remote corners of the world. The respect for archives embodied in physical archival spaces, such as the ritual of carefully returning a document to its original place, has been replaced by the immediacy and fluidity of digital access. On the screen, we can effortlessly switch between Holocaust archives and documents celebrating imperialism. Technological advancements do not concern themselves with the content of archives. They focus only on the speed of storage and retrieval.

It is important to note that this does not mean digitalisation has eliminated inequality in archives. The drawer conceals its state of disorder with deceptive slogans such as “knowledge equality”. Digitalisation turns information access into a form of rapid consumption, weakening the order that archives represent in relation to history, morality, and power. This chaos create an illusion of equality, forming a new institutional structure shaped by the digital drawer. Moreover, many small archives or archives in the Third World, owing to a lack of funding and technical resources, are unable to digitise their collections on a sufficient scale and to a high enough quality, resulting in their archives being excluded from the digital environment. The digital drawer functions as both a tool of accessibility and exclusion. It not only excludes the ethical frameworks and hierarchical structures that once defined physical archives but also excludes archives that lack the resources for digitisation.Now we can understand Anne’s statement about the screen being both opaque and transparent.[13]

The architectural form of data centres has likewise become complicit in concealing states of disorder. Achille highlights “a definition of ‘archives’ that does encompass both the building itself and the documents stored there”.[14] While this definition applies to data centres as well, it is difficult to find a term equivalent to “archive” that simultaneously refers to both the building and its contents. As previously mentioned, the fundamental distinction between

[12] Achille Mbembe, “The Power of the Archive and Its Limits,” in *Refiguring the Archive*, ed. Carolyn Hamilton Hamilton et al. (Dordrecht, The Netherlands: Springer-Science+Business Media, B.V, 2002), 21.
[13] Anne Friedberg, *The Virtual Window : From Alberti to Microsoft,* 19.
[14] Achille Mbembe, “The Power of the Archive,” 19.

archives and other documents lies in the process of selection according to specific criteria. Thus, an archive building inherently points to the archives it houses. However, a data centre does not. It can contain both archives and non-archives, making its contents impure. Strictly speaking, the concept of a digital archive building is highly misleading. Few would construct a dedicated building solely to store electronic storage media and servers for digitising specific physical archives. Instead, digital archives are parasitic upon servers within data centres. A single data centre may host multiple digital archives, while one digital archive may be distributed across servers in multiple data centres. The concept of the drawer has been deconstructed.

For this reason, architects rarely discuss the architectural form of data centres as they seem to lack compelling symbolic significance. Clearly, as drawers, these architectural forms struggle to symbolise the impurity of their contents. Architects admire the Vatican Apostolic Archive with its dark bookshelves, walls bathed in half-light, and intricately carved arches. Even without designing such spaces themselves, architects take pride in describing them, finding a sense of accomplishment and professional validation. By contrast, the interior of a data centre with its neatly aligned, indifferent machines operating with mechanical precision dispenses entirely with decorative elements. The symbolism here celebrates industrial achievement rather than the essence of the archive. Data centres are minimalist, functional, and highly sealed, prioritising efficiency over experience and invisibility over visibility. Visitors cannot see or touch the data stored within. They can only sense its presence through the hum of servers and cooling systems, with sensory engagement reduced to a minimum. Beyond the data, even the mechanical structures are concealed.

In archives, the smallest unit, the physical drawer, can be freely pulled out, offering direct access to its contents. In data centres, however, such drawers are hidden behind metal frameworks and boxes. Whereas archives allow visitors to observe staff moving documents back and forth, data centres rely on concealed cable connections and circulatory systems to sustain the continuous flow of information. While the symbolic role of the drawer has been diminished, its priority has, for the first time, surpassed that of the archive. In archives, buildings are constructed to serve the archive. In data centres, the buildings are erected without knowing what specific data they will house. Driven by accelerationism, data centres are built in anticipation of future data and the foundations of an impending new economy.

In order to reduce the energy consumption required to sustain the operation of massive machines, data centres are increasingly being located in extreme environments. This represents a stricter form of isolation, as places suitable for human habitation are often unsuitable for machines to operate. This contrasts with the logic of physical archives, which rely on human proximity to realise their value. For example, Microsoft's Project Natick[15] stored data underwater, the Swedish internet service provider Bahnhof[16] repurposed a former civil defence centre into an underground data facility, and Lonestar Data Holdings[17] successfully tested its first data centre on the Moon. These cases fundamentally remind us that

[15] Microsoft Research - Special Projects, "Project Natick Phase 2," Microsoft.com, 2019, https://natick.research.microsoft.com/.
[16] "Bahnhof - WAN & SD-WAN," Bahnhof, 2024, https://bahnhof.se/foretag/colocation/.
[17] "Lonestar," Lonestar, 2024, https://www.lonestarlunar.com/.

data centres have, to some extent, evolved into a new form of infrastructure. The guardians of the archive have become granite, seawater, and the atmosphere. The remaining staff do not directly maintain the data itself but instead maintain the drawers that store the data. Furthermore, they do not serve only the data centres they work for. Instead, they maintain a consensus that humanity has already established, under which all data centres operate as an integrated whole. Data ownership does not belong to individuals or archive centres any more; it belongs to the entire network. Data is interconnected with other machines. It resides in everyone's mobile phones, laptops, nightclub sound systems, and the giant screens in public squares. Archives can be shared simultaneously by many, and data ignites collective imagination.

Conclusion/Afterword

The drawer is not merely a tool for categorisation within physical space but also a structural mechanism for data control in digital environments, bearing new systems of power. In this essay, it is elevated to a more abstract, framework-like metaphor. From the singular drawer, archives, and basic digital storage media to more advanced transferable data formats, data centres, and networked systems, the concept of the drawer forms a bridge between the physical and the digital. It serves as a critical tool for analysing the dialectical relationship between the two. This essay examines the evolution of the "drawer" within a continuum of time and, through this concept, offers a critique of a series of schemas.

Looking toward the future, the relationship between digital and physical archives will continue to evolve. Following the logic of the drawer, we may imagine, in a posthumanist sense, that all electronic devices will eventually become extensions of the human body, functioning as its organs. Digital archives could be accessed directly within augmented brains, eliminating the need for intermediary devices such as mobile phones between data centres and the body. Data would flow directly through neural implants, bypassing external storage and visual interfaces, embedding storage and retrieval within human cognition itself. With this transformation, the physical drawer would vanish entirely, leaving archives even more vulnerable and exposed than if they were laid bare in the open air. Humanity's efforts and technological advances to preserve archives, rather than stripping them of materiality, have instead stripped the drawer of its material presence. Perhaps it is only when the drawer disappears completely that we will long for the moment when early humans carved symbols into cave walls—a moment when memory and material form were directly intertwined, evoking a primordial sense of security.

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