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THE RENAISSANCE OF MATERIAL MEDIA

IN PHOTOGRAPHY, FILM, AND BEYOND

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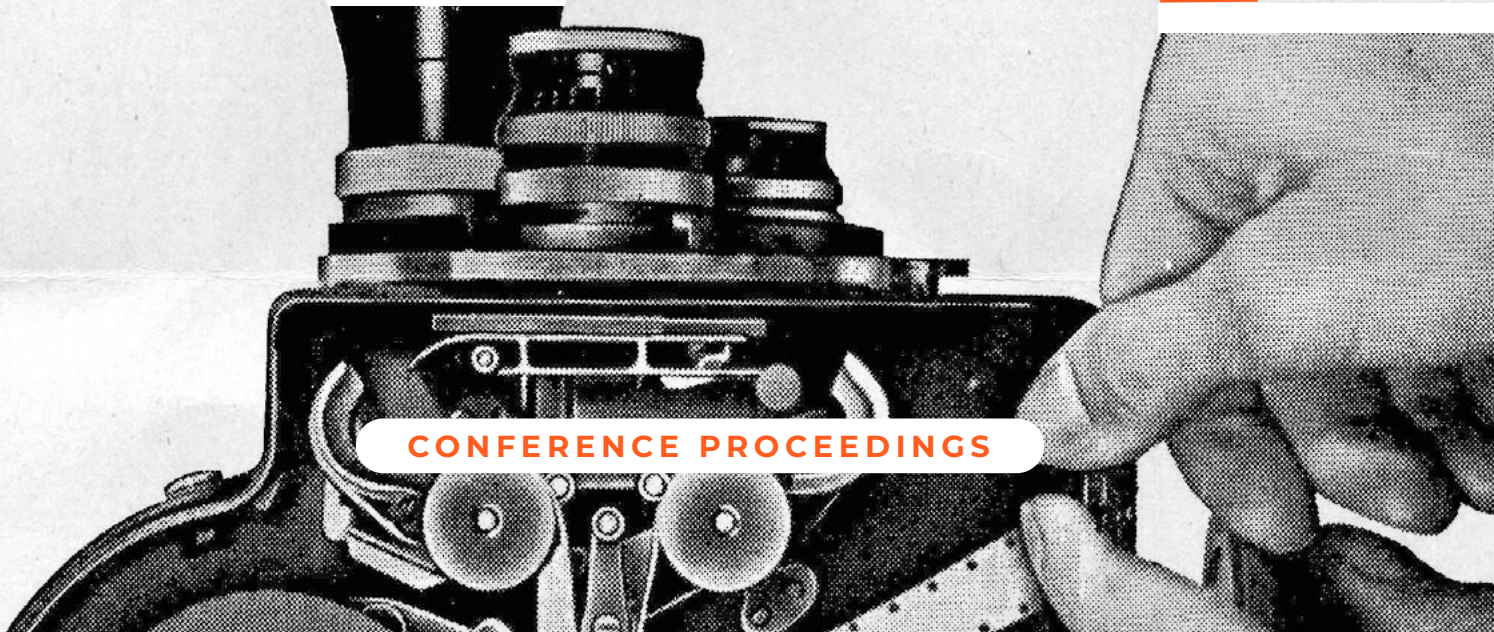
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Fabio Binarelli

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Preface: The Need for Attachment to Material Supports

The 2025 conference theme originated from curiosity: the curiosity to explore a feeling common to many, namely the attachment to the material supports of media. While undoubtedly we all enjoy storing thousands of pictures on the phone in our pockets, and having apps to listen to all the music we want, anywhere and anytime, yet there remains a desire for artifacts that convey more than just content, no matter how complex that content is or how many artistic forms it incorporates.

There remains a need for a tangible relationship with media artifacts and to establish a more profound bond with them, a bond that endures through time and trends. I increasingly realized that this feeling was commonly shared, as suggested by my observations of students taking pictures with analog cameras and regularly printing them, or developing a fascination with CDs, in similar ways to how I previously valorized vinyl records as the legacy of an idealized past, to name only a few examples.

Notably, this perspective contrasts with positions occasionally found in Italian music criticism over recent decades, where the transition from vinyl to CD has been interpreted as a loss of affective attachment to the material supports in contrast with the cultural depth attributed to vinyl (Cazzaniga). We are witnessing a countertendency.

And we are pioneers. This volume contributes to an emerging field of study surrounding a cultural phenomenon that is still underexplored: the return to material media. On December 2025, we were privileged to share our curiosity with distinguished professionals and scholars who enriched the developing conversation with valuable, insightful studies from the fields of cinema, photography, music, and more, indicating that the subject extends beyond trend or nostalgia: attachment to material supports is a widespread cultural tendency observable across countries and generations, and the volume marks an early collective scholarly attempt to address the phenomenon.

We are certainly not here to diminish in any way the benefits of the digital world, which we all enjoy. Extant literature has significantly explored the transition from analog to digital (Chen; Ferraris; Haworth-Booth; Lum; Straebel), but it has not considered the opposite trend with equal attention. We are here to affirm that the renaissance of material media brings together the creative force of those artists committed to material practices, as reflected in the work of numerous filmmakers, photographers, and composers, and the audiences drawn to these creations beyond mere consumption, establishing meaningful and enduring relationships with artifacts that maintain a connection to artisanal production. What better city than Florence, with its centuries-old traditions, to discuss craftsmanship and to inaugurate a discussion on the renaissance of material media?

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Preface: On the Matter of Matter

At the time of writing this preface, a semester has passed since we first convened. And yet, in revisiting these scholarly contributions and reflecting on the reverberations of the shared dialogue established, an eagerness for the potential of this field of research keeps expanding. Contained within these proceedings are the insights of academics, editors, artists, and critical thinkers whose voices have profoundly enriched the conversation on what we could define the “matter of matter.”

During the last class of a Poetry Writing course I taught at The American University of Florence in Spring 2026, we held a remarkably profound discussion on the weight of lyrical voice in an era of pervasive automation. I found a classroom vibrating with a collective longing for materiality, for the slow art of journaling, and the unmediated spark of human thought. My students hope to leave a physical trace of their passage on earth, to weave creative connections with their own hands, minds, and bodies. They seek to inhabit the silence. And to be vocal, too. They want to write poetry.

“Poetry” originates from the Greek *poiein* (“to make” or “to create”). With reference to an extraordinary poet, I am thus reminded of the archival origins of Emily Dickinson, who was a meticulous naturalist. During her youth, in a leather-bound album, she curated a sprawling herbarium, where she collected plentiful botanical specimens. In doing so, she was making, she was creating, through a total embodied connection with the natural world. Hence, she was immersed within the etymology of poetry, even before writing poems.

Today, the original volume of Emily Dickinson’s herbarium is so delicate that it remains shielded from the physical touch of even the most prominent scholars. For years, such an intersection of ecological study and poetic inquiry remained somewhat concealed, whilst the rare facsimile editions were too costly for the public. However, in a beautiful act of digital

stewardship, the Harvard Library has digitized the herbarium,¹ which is now both observable and sharable amongst thinkers all around the globe.

For it, and in this very fashion, I argue that we must reframe the binary between the digital and the physical. Digitalization is not the sworn enemy of materiality. Rather, when handled with intentionality and conscious purpose, the two can not only coexist, but even nurture each other. This way, we can create new spaces of ignition where culture shall stem in a truly multidisciplinary manner; its blossoms watered and cultivated.

Our task is to leverage contemporary tools not to automate creativity, but to safeguard the tactile history that informs it. In this synergy, we find a renewed form of humanism. When we look at a screen and see the high-definition veins of a leaf pressed by a young poet nearly two centuries ago, we are not looking at a simulation. We are looking at a bridge. The voices contained in this volume shed light over that very bridge. May crossing it lead us back to the soil, back to the desk, and back to the quiet, irreplaceable labour of being human – picking flowers, in fields of grass, and fields of research, too.

¹ Dickinson, Emily, 1830-1886. Herbarium, circa 1839-1846. 1 volume (66 pages) in green cloth case; 37 cm. MS Am 1118.11, Houghton Library © President and Fellows of Harvard College.

Sofia Galli

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Meaning through Form: The New Poetics of Embodied Reading

The architecture of an experimental book can parallel that of human thought. The physical book, in a new era of literary innovation, is being re-imagined as a dynamic site for both personal and collective meaning-making. Through their unique materiality, artifacts such as Anne Carson's *Nox*, Nick Bantock's *Griffin and Sabine*, and J.J. Abrams and Doug Dorst's *S.* transform reading into a profoundly participatory and tactile journey. These texts utilize fragmentation and multimodality to materialize the narrative of absence, transforming the struggle of memory into a tangible, ergodic experience. By imposing sensorial demands – unfolding Carson's accordion-fold elegy, unsealing Bantock's intimate correspondence, or excavating the ephemera of Abrams and Dorst's *S.* – the works compel readers to abandon passive consumption and engage in participatory reading. Ultimately, these books insist that meaning is not a static destination but an active, embodied ritual found within the physical process of the search itself. The paper argues that this participatory dynamic is a critical mechanism for the development of social consciousness. By externalizing personal loss, fragmented memory, and the struggle for meaning through tangible forms, these books create a communal space for dialogue and shared understanding. They do not merely recount human experience; they embody it, offering a new, physical vocabulary for confronting absence, identity and the very nature of a book itself.

At the heart of this material shift is the concept of “ergodic literature.” Coined by Espen Aarseth, ergodicity refers to texts where “non-trivial effort is required to allow the reader to traverse the text” (Aarseth 1). In the context of experimental and multimodal works,¹ this effort is not merely a cognitive puzzle but a physical, multisensorial labor that challenges

1 For a more extensive survey and radical questioning of what constitutes experimental literature, see *The Routledge Companion to Experimental Literature*, edited by Joe Bray, Alison Gibbons, and Brian McHale (Routledge, 2012).

the traditional definition of a literary text (Gibbons 420). Through the externalization of these internal structures, the physical book provides a ritualistic space for meaning-making, transforming the reader into a “participatory reader” who must negotiate situational meaning through tactile interaction (Gee 14). The latter process is particularly vital when the theme is one of absence, where language often fails and materiality must step in to bridge the gap. The phenomenon of reading in experimental literature requires what Warren Motte defines as an “incessant mobility” (12). This mobility² is both a cognitive and a physical consequence of the text’s architecture. As the participatory readers move through the revealed elements provided by the author and negotiate the concealed elements hidden within the multisensorial layout, they move from a state of passive reception to one of active text production (Motte 10). The bridge between individual sensation and social consciousness is built through literary identifications (Sumara et al. 227). As readers “read” others through experimental forms, they develop a more nuanced understanding of their own identities and the societal structures surrounding them. Consciousness, in this framework, is the function of the human mind that processes information through the five senses, imagination, emotion, reason and memory (Vithoulkas & Muresanu 104).

With this in mind, Anne Carson’s *Nox* (2010) functions as a profound book-as-monument. *Nox* is encased in a sturdy gray box that acts as a symbolic replica of an epitaph for Carson’s brother, Michael. *Nox* is characterized by an accordion-fold structure, containing scattered fragments and artifacts that transform the book into a monumental place for a brother who, due to long-term estrangement, lacked a traditional grave or a conventional space for mourning. Grief emerges here as a fragmented, ongoing performance of commemoration, proving that the epitaph is not a final statement, but a persistent, tactile process of understanding. David Morris argues that this physical form is integral to its meaning, suggesting that the book’s construction, namely blending three-dimensionality with mass replicability, mirrors the complex emotions

2 The connection between the physical navigation of a text and broader social phenomena draws upon the “new mobilities paradigm.” This framework, pioneered by Mimi Sheller and John Urry, views society as a network of interconnected movements, namely physical, social, and economic, where the interrelations between humans, objects, and non-objects are constantly in transit. See Mimi Sheller and John Urry, “The New Mobilities Paradigm” (*Environment and Planning*, vol. 38, 2006, pp. 207-226)

of loss (2011). Because the work is a facsimile, the “presence of the replica reminds us that something crucial is absent: a brother” (ibid.). This investigation is tied to the concept of trauma’s incommunicability, metaphorically represented in *Nox* by what Marfé describes as a “translational checkmate” (196). Significant to this investigation is the realization that Michael was already absent long before his physical death. His life was characterized by a wandering, nomadic erasure; he was a figure already absent, existing in a state of self-imposed exile that left Carson with only fragments of a person, even while he was alive. By including tangible fragments such as Michael’s letter and childhood photography, Carson forces the reader to confront the unresolvable and iconotextual nature of memory.

The emotional and structural scaffolding of *Nox* is built upon Catullus 101, an elegy written by the Roman poet for his own deceased brother. Carson’s project is framed as an exhaustive attempt to translate this single poem, with the left-hand pages of the book devoted to a word-by-word lexical breakdown of the Latin text. Approximately halfway through *Nox*, at section 7.1, Carson provides a personal reflection that reveals the depths of this struggle. She notes that, like Catullus, she is mourning a brother of whom “nothing at all is known... except his death” (ibid.). The act of traversing the poem becomes a surrogate for prowling the memory of her brother. The accordion-fold architecture allows these two unending histories to unfold simultaneously, insisting that the labor of understanding the other is a perpetual and embodied.

The experience of *Nox* transcends the purely intellectual realm, tapping into the power of emotion as a fundamental aspect of human cognition that influences both thought and memory (Vithoukias and Muresanu 104). While the work mimics a traditional codex through stitched binding imagery, it simultaneously subverts it. Liedeke Plate argues that the physical layout of *Nox* – specifically the way the *leporello* unfolds – grants the reader agency to either follow a linear path or physically rearrange the pages. A freedom that fundamentally shifts the reading experience from passive observation to tactile intervention (98). Palleau-Papin extends this logic by identifying this structural instability as the very mechanism that allows the book to “carry” history; because the pages are not fixed in a traditional binding, the narrative remains in a state of flux, mirroring a past that is never truly settled (2014). Consequently, the reader is not only a witness to Carson’s mourning but an active participant who engages in a tactile

ritual that parallels the “prowling” of a history that “does not end” (7.1). As Eleni Sikelianos observes, *Nox* creates a “ladder between tactility and distance,” offering a touchable object that addresses an “untouchable brother” (148). This form thus serves as the essential mechanism for elaborating the intimate through the performative nature of the book’s physical form.

In the trilogy by Nick Bantock, *Griffin and Sabine* (1991-1993), the ergodic demand of the experimental book is realized through a specific tactile mechanism: the removable letter. Unlike the traditional codex, where the narrative is exposed to the eye in a linear stream, Bantock’s work is constructed through postcards and envelopes containing physical letters that the reader must manually extract and unfold. This material architecture fundamentally shifts the reader’s ontological position from a distant observer to a voyeur. The physical barrier of the envelope creates a literal and figurative threshold; to read is to cross into a private, sacred space that was never intended for public consumption. This multimodal strategy – merging painting, calligraphic handwriting and physical ephemera – facilitates what Tania Mary Vivera describes as text-visual osmosis (2014), where the boundary between the artistic image and the linguistic sign dissolves. As Maria Grazia Sindoni argues, the work challenges the standard category of the modern short story by centering its philosophy on the incorporation of visual and sensory textuality. It functions as a postmodern miniature wherein the visual text is not a mere paratext or aesthetic accessory, but an interwoven narrative warp that necessitates physical intervention to exist (149). By forcing the reader to perform manipulations such as unsealing and unfolding, the book transforms the act of reading into a performance of intimacy.

The fact that the protagonists, Griffin and Sabine, never truly meet in the physical sense serves as the cornerstone of what can be defined as the narrative of absence. This ontological gap, the missing dimension of the real, is where the book’s materiality takes on its most radical function. In this literary elsewhere, the physical book acts as a surrogate for the missing bodies of the lovers. Because the characters are precluded from an encounter in the diegetic world, the reader’s own body must bridge the gap through the “sensoriality of the experience” and the “physicality of reading” (Sindoni 153). The encounter is the only instrument that could add reality to their knowledge, yet the characters remain non-real, existing only within the “substance of dreams” (ibid.). Consequently, the reader becomes a reconstructor of lost identities, a vessel

through which the power of the word is given a temporary physical home. This interaction fosters a heightened social awareness regarding the nature of communication in a fragmented world. The reader becomes aware that meaning is not a solitary possession but a communal construct, one that requires a physical intervention to be sustained. The project's architecture compels the reader to confront the unresolvable distance between individuals, mirroring the broader social struggle to achieve intimacy across cultural or physical divides.

A similar tactile and sensorial bridge occurs in the participatory reading of J.J. Abrams and Doug Dorst's *S.*. The work is a manufactured artifact: a 1949 novel titled *Ship of Theseus*, purportedly authored by the enigmatic and fugitive writer V. M. Straka. The book is filled with loose-leaf postcards, maps and napkins, and covered in dense marginalia written by two researchers. The latter represents the physical trace of two people's attempt to solve a literary mystery while falling in love. To read *S.* is to perform the role of an archaeologist. The dense marginalia and pieces of ephemera transform the book from a "medium of wide-scope communication" into a singular, private archive (Keskinen 143-144). These layers of annotations form a "social mind," a collective interiority where the cognitive processes of Eric, Jen and the translator Caldeira are "exposed to further interpretations" by the reader (141, 154). The book becomes a "repository of visual and material traces that substantiate reading experiences" (Mantzaris 73). The reader must decide where these objects belong, effectively becoming a curator of the story. This archaeological labor forces a slowing down of the reading process, transforming the book into a meditative space where the physical handling of evidence replaces the rapid consumption of plot.

In *S.*, the narrative of absence operates on a triple-helix structure: the amnesiac protagonist of the inner novel, the two students who communicate only through the margins and the reader who must navigate the missing spaces between these layers. The inner novel, allegedly the final work of the elusive V.M. Straka, begins with a literal manifestation of absence. The protagonist, known only as S, awakes on a ship with his identity completely erased. As Mantzaris notes, S finds in his pocket a "sludge of ink-stained paper" on which all meaning has been lost, save for an ornate S-symbol (70). This initial absence of memory mirrors the absence of the author, Straka, who has vanished from history, leaving behind only "rumors of sabotage

and espionage” (70). The ship itself is populated by crew members whose mouths have been sewn shut. This serves as a powerful physical allegory for the incommunicability of trauma and the limitations of the written word, which forces the reader to look elsewhere for meaning, specifically to the marginalia. In the context of the book, the “original” text of Straka’s novel is increasingly obscured by the additions of the translator F.X. Caldeira and the two students. In *S.*, absence is the engine of the ergodic experience: we only find the “real” story by looking for what has been left out, tucked away or written in the margins of someone else’s history. Outside the inner narrative, Eric and Jen mirror the “unmet” status of Griffin and Sabine. Their relationship exists exclusively within the library copy of the book. As Keskinen observes, their intimacy is fostered by the very fact that they are *not* in the same room; the book thus becomes a “secretive platform” (143-144). In this sense, the library copy ceases to be a public vessel and is transformed into a private reliquary.

The material turn exemplified by these texts represents a radical departure from the frictionless, often passive consumption of digital information, re-establishing the book as a visceral site of participatory engagement. In *Nox*, *Griffin and Sabine*, and *S.*, the adoption of a multisensorial physical presence does not represent an aesthetic gimmick; rather, it is a structural requisite designed to mirror the complexities of human cognition and the multifaceted nature of absence. By compelling the reader to alternate between the roles of an archivist of loss and an archaeologist of hidden histories, this type of experimental literature cultivates the mobility necessary to navigate a fragmented world. This mobility is both cognitive and physical. The embodied mechanism that the studied texts activate serves as a crucible for social consciousness. It demands that we confront unmet and erased statuses – the brother who was never fully known, the lovers who never touch, the man with no memory, the author who has vanished – not as abstract concepts, but as tangible voids that require our active multisensorial and emotional intervention. Social consciousness, in this framework, is born from the realization that history and identity are not inherited as clean, linear truths, but are reconstructed through the laborious rehearsal of fragmented evidence. In confronting these texts, participant readers thus have the possibility to develop a more nuanced understanding of the societal structures that allow for erasure and silence.

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The Case Study of E-Books at Mandragora: The Value of Physicality in Art Publishing

The launch of the Amazon Kindle in 2007 accelerated the rise of e-books, swiftly challenging the dominance of traditional print formats (“A Look Back”). This case study examines why physical books continue to dominate Mandragora’s art and tourism publishing by assessing the roles of specialized reader preferences, the sensory appeal of print and the publisher’s strategic priorities in limiting e-book adoption, despite the broader industry shift toward digital formats.

These features, together with the growing use of digital devices, have fundamentally changed reading practices. Even so, this study shows why physical books remain dominant in Mandragora’s art and tourism publishing segment, despite broader industry shifts toward digital formats. The sections that follow examine three main areas: the overall advantages of e-book technology, the unique challenges facing specialty publishers like Mandragora and the key factors that continue to support print’s dominance in art and tourism books. Taken together, this discussion highlights the niche’s distinct resistance to digital transformation.

E-book readers offer four main advantages: they are cost-effective, portable, space-saving and environmentally sustainable (Stoll). A Pew Research Center report notes that e-books can be up to 60 percent cheaper than print books, making them a more affordable option for avid readers (Zickuhr and Rainie). In addition, a study by the Environmental Paper Network suggests that digital books may lessen environmental impact by reducing the demand for paper manufacturing and deforestation (Environmental Paper Network). Fortune Business Insights also reports that users value e-books for their portability, instant access, and ability to store thousands of titles on a single device (“E-book Market Size, Share & Trends”).

Against this backdrop, Mandragora’s experience illustrates these dynamics. For instance, as noted by Mario Curia, “many of our original supporters continue to purchase new releases and recommend our books to others, demonstrating a strong sense of loyalty” (Curia). Maintaining

these long-standing relationships while attracting new readers is fundamental, bridging the discussion from industry-wide trends to Mandragora's specific situation. Anecdotal evidence suggests that people, regardless of initial interest in the subject, appreciate Mandragora's unique physical books—a quality that extends beyond content to design, craftsmanship, and the sensory experience (“Mandragora, Publishing House”).

Yet, within this broader context, Mandragora's case stands out as a notable exception, given its readers' continued preference for physical books despite widespread digital adoption in the publishing industry. This divergence highlights the significance of specialized market factors, such as the value placed on tactile and aesthetic qualities in art and tourism books—qualities digital platforms have struggled to replicate. Through this perspective, Mandragora challenges prevailing assumptions about a universal shift toward e-books, demonstrating how targeted audiences sustain traditional formats when their unique needs and preferences are prioritized.

This is especially evident when considering both the general benefits of e-books and the specific niche Mandragora serves. Accordingly, the limited appeal of digital features for Mandragora's audience becomes clear in this context. Mandragora is a publishing house dedicated to deepening appreciation for visual artistry, cultural heritage, and travel by creating high-quality art and travel books. Mandragora's mission is to produce books that not only showcase artistic and cultural achievements but also invite readers to connect with the beauty, meaning, and craftsmanship behind each work.

Though e-books offer advantages, Mandragora's art and tourism audience values the sensory engagement of physical books. Details like the texture of heavy paper, the scent of ink, and rich color add to a reading experience beyond digital replication. Younger readers accustomed to digital technology prefer physical books in the artistic domain and are willing to pay a premium for printed art books, despite the cost savings of e-books (Bury). This fact explains why Mandragora's digital offerings are less compelling, as noted by founder Mario Curia.

Although Mandragora recognizes the importance of digital formats, its emphasis on sensory experience helps explain why only about 4% of its annual sales come from digital

books, as reported in the AAP StatShot Annual Report. Compared with the industry-wide figure of 16% of total book sales from e-books (“AAP StatShot Annual Report”), Mandragora’s digital sales proportion is significantly lower than the industry average. This direct comparison further underscores how Mandragora’s prioritization of sensory engagement—the tactile and aesthetic qualities valued by its readers—likely restricts the appeal of digital books, even when broader market trends favor e-books.

Even so, e-books have increased accessibility for certain groups. Features such as adjustable fonts and text-to-speech have made reading easier for people with dyslexia or impaired vision (Zickuhr and Rainie), an area where physical books continue to face challenges and need more solutions. In short, while e-books continue to grow in popularity, Mandragora’s focus on sensory engagement ensures that print remains central to its identity and appeal. Overall, this case demonstrates the enduring value of physical books for specialized audiences, even in a progressively digital world.

Looking ahead, Mandragora will revamp its publishing catalog and pursue new opportunities for innovation, while intentionally safeguarding the tangible qualities of its products. This approach highlights a broader implication for the publishing industry: bridging the gap between younger generations and books goes beyond technological solutions and necessitates a revitalized emphasis on arts education and creative culture throughout society. For publishers in specialized markets, integrating artistic engagement with digital advances may foster renewed interest in print media. Mandragora’s strategy, therefore, not only seeks to cultivate a deeper appreciation for books among younger readers but also points to a potential pathway for niche publishers seeking longevity in an increasingly digital landscape.

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The Artist (2011) as Symptom of Techno-Capitalist Recuperation

1. Introduction

Directed by Michel Hazanavicius and starring Jean Dujardin and Bérénice Bejo, the co-production between France, Belgium and USA of *The Artist* (2011) was garlanded with 162 awards from around the world (Internet Move Database). Beyond prizes and strong box office performance, *The Artist* recruits interest particularly for media scholars around the myriad registers in which it resonates. For instance, Laura Kern enthuses in *Film Comment* that *The Artist* enacts “movie perfection. Anyone who thinks otherwise is clearly averse to feeling good” (Kern, par. 5). Kern’s characterization underlines *The Artist*’s quasi-hypnotic powers as it elides the darkness that spills beyond the film’s edges that include economic and personal depression, substance abuse, and near suicide. As this paper aims to demonstrate, *The Artist* works through material implications of technology and capitalism that are finally resolved by a closing sequence that recuperates prevailing ideology. In transposing economic and social crises contemporaneous to its production and release, *The Artist* radiates symptoms of the first decades of the twenty-first century to diagnose.

2. Critical Response

In a panegyric review of *The Artist* that suggests a peak career viewing experience, *The* (UK) *Guardian* critic Peter Bradshaw raves, “This has to be the first time I have actually wept tears of joy” over a film (Bradshaw, par. 1). For Bradshaw, *The Artist* is “a miracle” (par. 2), “as close to perfection” as any film “I have ever seen” (par. 7). In the USA, Cable News Network (CNN)’s Mark Rabinowitz is similarly uninhibited: “*The Artist* is a flawless film” (Rabinowitz, par. 1). Rabinowitz marvels, “There is literally nothing wrong with it” as the film summons “pure magic from the first frame to the last” (par. 2). Rabinowitz nevertheless shortchanges *The Artist*: “It’s not an ‘important’ film” (par. 4) although I will argue it vibrates with significant symptoms of its time.

Like any highly circulated work, *The Artist* encountered criticism alongside often rapturous responses. The British Film Institute (BFI) offers a left-handed compliment: *The Artist* is “a whole lot better” than Hazanavicius’ earlier James Bond spoofs (BFI 2012, par. 1). For BFI, *The Artist* is “at best a novelty hit” (par. 3). Movies Silently also observes that *The Artist* became a *bête noir* for some film enthusiasts as exemplary of celluloid that seduces middlebrow audiences (Hewitson). By contrast, this paper argues that the richness of *The Artist* resides not in presumed “perfection” but in its laminae of meaning to tease apart.

3. Sounding Off

An unmissable feature of *The Artist* is its constitution as a silent, black and white film almost a century after the advent of sound film circa 1927. Kern enthuses that *The Artist* is a “respectfully authentic”, “wholly resonant love letter” to the silent era (par. 2). Below, this paper attempts to further complicate *The Artist*’s relationship with sound as the film picks at contradictions deeply inscribed in technology and the capitalist relations that circumscribes it.

“Silent” and “sound” film” are not apt terms since the medium never really was ensconced in silence. According to Kristin Thompson and David Bordwell, “Most silent films were accompanied by live music ranging from a piano or an organ to a full orchestra” (193). Although off-handedly described as such, *The Artist* is not a silent film as the term would have been understood in the 1920s. To clarify, Warner Bros. was a peripheral studio outside the circle of industry majors and pioneered sound to save money on live performers during screenings in its theaters (Thompson and Bordwell). The studio developed the Vitaphone, a “16-inch [40 centimeter] shellac disc” (Kohler, par. 9) played alongside the film. With Vitaphone, sound was prerecorded and audiences would hear the same soundtrack in every theater and not local musicians. However, the discs were heavy, prone to damage in transit and could skip during screenings.

In short order, Warner’s competitors took the lead on sound recorded alongside the visuals on the same film strip, an improvement that became the industry standard (Kohler). The upshot is that, as a film with a soundtrack recorded on the same celluloid as the visuals, *The Artist* aligns with an early sound film and *not* with silent cinema. Like 1927’s *The Jazz Singer* that is canonized as the first sound film, *The Artist*’s soundtrack is not exclusively musical but

also features brief dialogue as well as a couple of sound effects.

While *The Artist* is (understandably) misconstrued as a silent film in the presumed sense that a film in 1925 would have been silent, its representations of the emerging technology aligns with features of the historical record. For a few years at the end of the 1920s and start of the 1930s, silent films continued to circulate alongside talkies even as they were rapidly marginalized (Follows). In this vein, *The Artist*'s protagonist George Valentin follows Charles Chaplin's real-life path and continues to make silent films, albeit to sharply diminished audiences and acclaim concurrent with Peppy Miller's talkie smash hits.

Euphoria around the advent of sound was accompanied by disruption of careers. Filmmakers such as John Ford (USA), Alfred Hitchcock (UK) and Fritz Lang (Weimer Germany) adjusted their film-making technique and thrived artistically. While some performers (Greta Garbo, Joan Crawford, Gary Cooper) sashayed smoothly into sound, other careers hit the wall (Lillian Gish, Douglas Fairbanks, Mary Pickford). "Funny sounding voices or heavy accents" were marginalized (Thompson, par. 11).

The film industry's development of sound as constructed in *The Artist* similarly reshuffles the pecking order of stardom as dramatized in the contrasting career arcs of Peppy and George. Peppy ascends. By contrast, for reasons evident in the film's final synchronized sound speaking moment, George's career is devastated by talkies. Along with his vanity and complacency around being on top during the silent epoch, the final scene reveals that George's participation in talkies was vexed by his immigrant-accented English.

While conjuring sound film's rise, *The Artist* eschews simplistic techno-determinism. Brian Winston (1995) theorizes techno-determinism as inscribed in tropes such as technology as the flagship of inexorable progress. Furthermore, in these narratives, great (typically) men advance one new gadget after another, seemingly by immaculate conception with no technical dead ends, friction or failure. Techno-determinism may also assume the form of anthropomorphizing technology as possessing its own motive life force. Winston critiques Marshall McLuhan as endowing technology with its own volition to bend human beings to its will—rather than the other way around. To say hypothetically that "The Internet changed society" is to lackadaisically channel techno-determinism in contrast with a cultural determinist characterization:

“People inventing, using, refining and renegotiating the internet to competitively, dialectically advance their material and ideological interests impacted society”.

The Artist stages a culturally determinist account of media. In this view, through matrices of economic and social forces, human beings shape technology at every turn through production, circulation, regulation, uses and gratifications, followed by further revision and reworking (Winston). In *The Artist*, corporate imperatives commandeer and manage the rollout of the new technology to the delight of audiences that were, in turn, eager for spectacle in the midst of economic depression. In *The Artist*, monadic “genius” inventors do not figure into technology’s rollout. After George is menaced by surrealistic sonic premonitions, corporate suit Al Zimmer informs George that their studio was poised to embrace sound productions. Sound was backed with advertising campaigns that herald what Zimmer crassly calls “fresh meat” to star in the new format. The medium of sound film presents no essence or motive force in *The Artist*. Rather, technology was steered by studio-level decisions with collateral impact on who was likely to be a star that, in the film, was then ratified in other media (print, radio) and by audience response.

4. The Artist as Symptom

This paper interprets *The Artist* as of interest not simply for its gaze backward but in relation to its contemporaneous moment. Drawing on David Bordwell’s theorization of films’ unstated symptomatic meanings, the film implicitly links the development of sound film almost a century earlier with the rapidly changing new “social” media environment of the 2000s-2010s.

The Artist’s 2011 arrival onscreen coincides with still newly introduced platforms becoming entrenched: Facebook went live in 2004 and was soon joined by YouTube (2005) and Twitter (2006). During the twentieth century, mass media was dogged by the criticism that even high-quality productions were top-down, almost exclusively one-way channels of communication. As participatory publics plunged into the vortex of the 2000s’ quotidian social media environment, tomes with bombastically optimistic titles proliferated. *We the Media* (Gillmor) and *Here Comes Everyone* (Shirky) extolled the new media environment as a game changer for betterment in journalism and social life. Other book-length works such as David Kirkpatrick’s *The Facebook Effect* (2010) offered panegyrics to particular new platforms.

By around 2010, sophisticated criticisms of the new media ecosystem were consolidating. Evgeny Morozov (2012) and Rebecca MacKinnon (2012) emphasized that, contra utopian techno-determinist dreams, new media did not “naturally” possess a liberationist essence. Morozov and MacKinnon both argue that authoritarians were already adept at managing and massaging new media toward their tyrannical programs. Indeed, during the fifteen years since *The Artist* lit up the big screen, social media has been commandeered by malevolent players and indeed become the instrument of choice for antisocial *counter-revolution* against the Enlightenment (Cooley and Dukalskis).

The Artist presents immense tension in its construction of the 1920s’ transition to sound with implications for audiences watching almost a century later. As sound became the industry standard in *The Artist*’s narrative, George’s life is all but ruined. Along with talkies that disadvantage his skillset, sound arrives in close proximity to the Great Depression. Due to the stock market implosion, George’s problems extend beyond the box office flop of his vanity film *Tears of Love*. George loses his wealth, career, McMansion, car and devoted chauffeur, a concatenation of humiliations that becomes existential. Drunken and depressed, he is on the verge of suicide. Audiences in 2011 could surely relate to the broad contours of this milieu. New social media and the financial crisis that began in 2008—the most severe economic storm since the Depression—were palpably part of people’s experiences and symptomatically shadow the world of *The Artist*.

In an uncanny environment of technological and economic convulsion, George appears headed for tragedy during the extended sequence of his professional and personal degradation. However, ideological recuperation is at hand! George and his career are rescued—and, by extension, 2011’s audiences could be reassured about the similar crises that surrounded them. In this vein, Mike Wayne (139-141) theorizes narrative moves in films that recuperate prevailing ideology and power relations. In Wayne’s terms, Hazanavicius’ film *transposes* its contemporaneous disorders onto the past and is *focalized* on George as the nexus of audience identification. Thus, George’s individualized *redemption* lances the criticism of capitalist volatility that the film dramatizes—regardless of whether whole classes of flesh and blood people did not realize redemption in the 1920s or 2000s.

As Wayne argues, *closure* can re-enthroned ruling ideology and express its power to bend narratives to prevailing interests; and so it is in *The Artist*. Following compelling drama peppered with crisis, George recuperates his career despite the disequilibria of sound compounded by economic depression. In the film, capitalism reveals itself as having a human face. Mega-star Peppy threatens to withhold her labor from the studio in order to restore her mentor George's career. Initially reluctant, crusty studio honcho Zimmer concedes to the employee's demands. In the final scene, George's belonging and prosperity are restored. Indeed, the curmudgeonly Zimmer is ecstatic with George's spectacularized revival through a dance number with Peppy to upbeat diegetic music. All is well that ends against a backdrop of techno-capitalist turmoil. Moreover, George's career redemption comes with progressive accents as it encodes an affirming message on immigrants as go-getter social contributors. The closure brandishes *The Artist's* liberal heart while its recuperative moves evade a radical gaze on capitalism as individualized redemption is constructed as the norm.

5. Conclusion

The Artist may finish with a catchy dance number and entrance critics with "feeling good" (Kern), but most of the film dwells on a once prosperous protagonist poised on the cusp of oblivion. Demands of concision preempt fuller exploration of further complexities of *The Artist*. For example, the film radiates soft power (Nye) as a primarily French production that sentimentally advances USA's mythologies about itself (class mobility, immigrant success) as resolutely as countless films from the USA. Despite the French director, lead cast and financing, there is enough USA content (Hollywood industry setting, iconic John Goodman) for *The Artist* to "pass" as a USA production. In stark contrast with the caustic Spanish film *Buried* (2010, discussed by Goss, 2020), *The Artist* is sufficiently seduced by the USA to participate in its soft power, even if the film's kiss also displays bite in its melodramatic turns. From the vantage point of 2026, the seductions of USA's soft power were still evident in Obama-era 2011, prior to the advance of charmless, bitter Trumpian belligerence.

These further elements to which this paper can only allude endow *The Artist* with ideological commitments for the media scholar to explore beyond two signature preoccupations, technology and capitalism.

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Film Genres' Revival through Film Stock Resurgence

1. Introduction

Film genres are the paradigm that identify audience expectations and structure the cinema industry's strategies, from production to distribution (Hagener 2022). Audiences' preferences for film genres keep shifting over time, with the current one dominated at the box office by spectacular, big-budget titles that entice young audiences, especially adventure, fantasy and superhero films (Burrus et al. 2024). VOD, cable TV and streaming platforms' most-watched genres shift from drama to comedy, adventure and thriller, following specific audience segmentations ("United States TV & Streaming Landscape" 2024). In an era dominated by digital film production and distribution, the resurgence of analog film is particularly interesting because it focuses on specific film genres, such as horror, period drama and auteur-driven cinema, which are traditionally not the most popular among young generations.

The body of this analog revival is constituted not only by niche, low-to-mid budget titles made by auteur filmmakers tailored for festivals. It's growing towards high-budget productions for worldwide theatrical release, representing a broader cultural phenomenon of resistance on the part of filmmakers to the narrative standardization of genres dictated by streaming platforms (Lotz 2021). Such affirmation of creative independence is echoed in cinephile discourse (Thompson 2022) and seems to meet the needs of young niche audiences seeking authenticity (Darmawan et al. 2023). It is a small, yet significant trend of "spectacular event cinema" with global potential ("Cinematographer Hoyte on Christopher Nolan's *Oppenheimer*"), suggesting that the analog revival in cinema may not be merely a nostalgic phenomenon, limited to older generations looking back. Focusing on the US-driven productions as a case study, this article's main objective is to identify why and how these specific genres align with the analog revival and to examine the productive, narrative, cultural and aesthetic reasons and resonances behind this phenomenon.

2. Curated Nostalgia

A peculiar aspect of the analog revival, or retro trend, in filmmaking is that it is driven by younger audiences, in contrast to the digital saturation experienced by new generations. A similar countertrend can be observed in popular genres. Indeed, while superhero, adventure and fantasy franchises dominate cinema box offices and streaming platforms, more and more younger millennials and Gen Z associate film stock with a sense of hands-on craft, material presence, authenticity and ritualized engagement (Hagener 2022). The “aura” provided by film stock’s imperfections, texture and grain carries tactile qualities that convey the realistic, unpredictable and irreplicable uniqueness of a real, analog experience, usually attributed to the sphere of art (Darmawan et al. 2023), to be experienced collectively in movie theaters, in the case of cinema. This type of perception and fruition deeply contrasts with the bulimic digital consumption of algorithmically standardized entertainment provided by digital platforms for isolated consumption. This desire for original, analogical, artisanal work also reflects a negotiation for a curated nostalgia peculiarity of younger generations (Darmawan et al. 2023). In fact, this niche audience does not refer to direct memories of the good old days of filmmaking but rather calls for the re-appropriation of obsolete technologies to distinguish their choices in the deep, cluttered sea of hyper-connected, digital mainstream culture production (Lizardi 2022). In this perspective, the analog film revival seems to be a conscious aesthetic choice adopted by a growing number of filmmakers and viewers, making this phenomenon more than a momentary fashion or a mere distraction from digital consumption.



Figure 1. Wes Anderson on the set of “Asteroid City: Desert Town” (2023) using a ARRICAM ST 35mm film camera

3. Film Resurgence

In a trend driven by auteur and festival love for analog films, film stock sales have increased since 2020 (Schlagwein 2021). Kodak's Cannes 2021 tally included numerous 35mm features in Competition/Un Certain Regard, including *The French Dispatch* (mixing 35mm color and B&W), *Memoria*, and *The Worst Person in the World* ("Cannes 2021 Line-Up Shot on KODAK Film."). *Filmmaker Magazine* catalogued 30 titles shot on 35mm in 2021 and 24 in 2022, many premiering at A-list festivals and authored by strongly branded directors, e.g., Paul Thomas Anderson, Wes Anderson (Rizov 2022). From 2020 to 2024, the number of feature films in English with US executive production and theatrical release shot on analog film stock grew from 15 to 31, while the worldwide productions counted in 2023 were over 60 (IndieWire 2023). In 2024, Kodak Motion Picture and Entertainment itself celebrated 33 productions shot on film at the Cannes Film Festival ("Cannes 2024 selection shot on KODAK film."). A 2025 column on the resurgence of analogue motion picture production highlights that multiple Best Cinematography 2025 Oscar nominees were shot on film, illustrating increased critical and festival presence of film-stock productions (Albert 2025).



Figure 2. IMAX cinema

More recently, the label “shot in film” has also attracted a growing number of cinephile audiences to IMAX cinemas, for a unique, immersive experience (Har-Even 2021). While large-format adoption remains rare overall, marquee projects (*Nope*, *Oppenheimer*) leveraged 65mm/IMAX negative for scale and texture, reinforcing the auteur blockbuster as a parallel locus of analog persistence (“How Hoyte pioneered with Kodak large format film”).

4. Genres Specificity for Film Stock Revival

Table 1 presents the number of U.S.-produced films shot on analog film stock between 2020 and 2024, categorized by genre. Data was compiled from Filmmaker Magazine surveys, Kodak production reports and trade journals documenting analog-origin productions during this period.

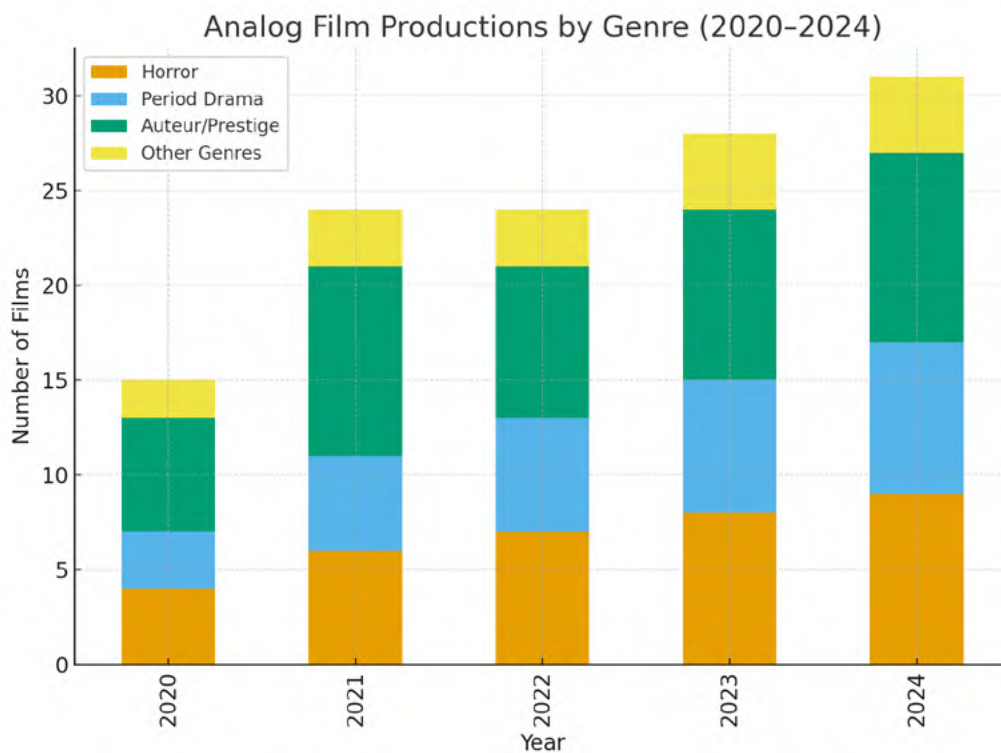


Table 1. US Analog Film Productions by Genres (2020-2024)

Although the absolute numbers might seem irrelevant in the immense digital movie titles production, the chart shows steady, significant growth. Trade and festival documentation show a persistent and significant cluster of film-origin features (8-10 annually in the U.S. only) within prestige and festival circuits, an environment largely dominated by period and auteur cinema. While the most significant growth belongs to horror films (from 4 to 9 titles shot in

film) and period dramas (from 3 to 8), “other genres”, such as comedies, documentaries, and experimental titles, remain marginal, reinforcing the idea that film stock resurgence remains a genre-driven phenomenon (Lotz 2021).

5. Horror: Grain for Fear

Horror films have increased their share of the market and release schedules significantly in recent years, with industry tracking showing an overall *increase in horror production and releases* (Chmielewski 2025). Though not directly tied to film stock usage statistics, in recent years several filmmakers have found in this genre a vehicle for asserting an auteur’s signature with worldwide distribution potential.

Texture, shadows, abrasion, the legibility of darkness, and grain make film stock particularly compatible with horror. According to audience surveys, horror spectators report a higher degree of realness and a deeper sense of immersion in horror film qualities (Kiss et al. 2024). From this perspective, the imperfections of analog film – gate wave, grain, again, and exposure shifts – evoke a sense of dread and heightened resonance. In terms of lighting, in horror, film stock use allows for unstable images thanks to halation around lighting sources, which creates a sense of instability, uncertainty, temporal dislocation, and hallucinatory, otherworldly atmospheres.

Recent horror movies are designed for IMAX immersive spectacle. This requires costly, highly complex production where film and digital footage need to be integrated to meet budget and technical requirements without renouncing a full effect experience. For example, the large-scale production horror film *Nope* (2022), directed by Jordan Peele, constitutes a fine example of a cosmic horror spectacle for an immersive, big-screen experience. *Nope* integrates 65mm IMAX negative Night Spectacle footage with “day-for-night” infrared digital shots for a unique, realistic look.

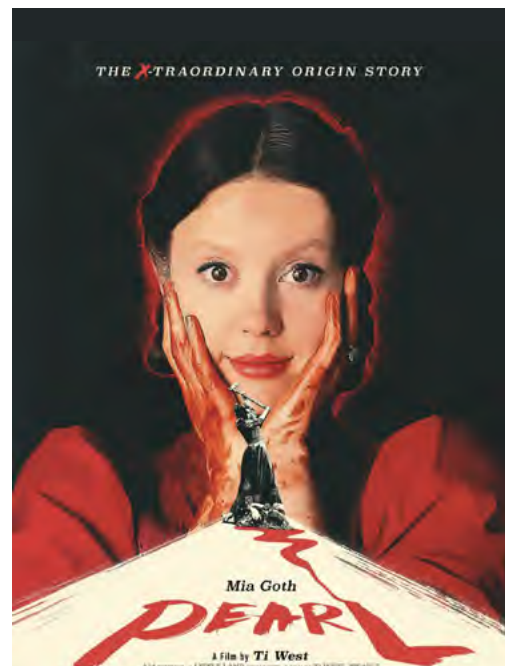


Figure 3. Pearl by Ti West (2022)

A more extreme example of a film look reproduced digitally is the horror movie *Pearl* (2022), directed by Ti West. The movie was initially planned and budgeted to be entirely shot in film, but as it was made “in New Zealand during COVID, it would’ve been impossible to get dailies within two weeks” (Madden 2022). Thus, the movie was shot with a Sony CineAlta Venice camera and Hawk MiniHawk lenses to recreate the 16mm Technicolor Pastoralism aesthetic. To minimize digital sharpness and boost the retro grain effect, the movie was reworked in post-production. The result is a 1930s Technicolor melodrama look with saturated colors and extreme textures meant to unsettle the audience.

A recent title entirely shot in film is *Bones and All* (2022) by Luca Guadagnino. Using Kodak Vision3 500T 5219 film stock and vintage lenses, Guadagnino’s teen horror combines a 1980s Midwestern setting with romantic realism (“DP Captures the Romance of *Bones and All* on KODAK”). Guadagnino’s director of photography, Arsenij Chačaturan, explains these choices in an interview he gave to the *British Cinematographer* magazine in 2022: “The intention to shoot on film came from Luca, first and foremost, and I was completely on board. [...] I think it’s a very physical and gentle experience because we have to babysit this negative as if it’s golden. It’s afraid of light, of dust, of temperature [...] Also, isn’t there a certain mystery in that you also don’t see what you get?”

6. Period Drama: Historical Texture

Analog film in period dramas invokes authenticity not merely through costumes or set design but through a sense of material temporality. Period films benefit from analog’s ability to produce tactile historicity. Analog film heightens the historical realism of *mise-en-scène*, providing a “temporal indexicality” that digital struggles to emulate (Darmawan et al. 2023).

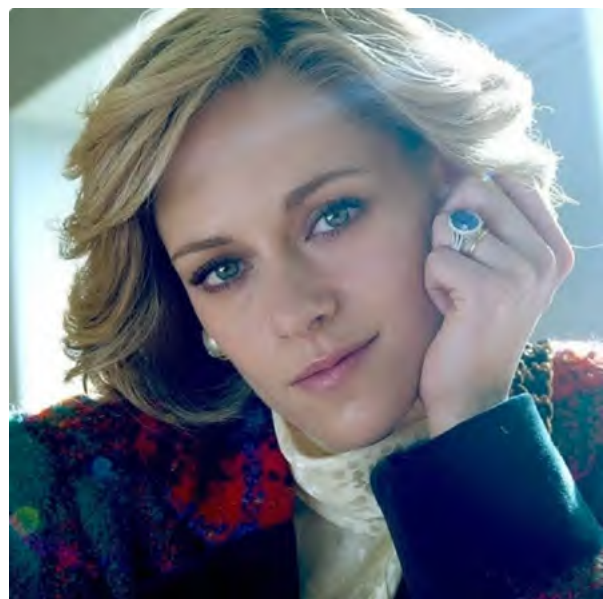


Figure 4. *Spencer* by Pablo Larraín (2021)

In *Spencer* by Pablo Larraín (2021), the emotional instability of Princess Diana, caused by the claustrophobic world in which she seems trapped, is mirrored by the material grainy material instability of Super 16 mm, with which most of the film was shot for the ergonomic and light camera, allowing intimacy. For darker scenes of psychological fragility, 25mm film stock was used to reduce grain and make details more readable. Film stock also provides a genuine retro look to evoke the story's historical setting.

Film texture similarly evokes the 1950s and 1960s in Steven Spielberg's *The Fabelmans* (2022), which traces memories from the director's childhood, when his passion for filmmaking first emerged. Here, too, the visual materiality of film is utilized as a "temporal index" re-producing a sense of historicity.

But it is in Christopher Nolan's *Oppenheimer* (2023) that history is made monumental, not via a nostalgic regression but through bold technological innovation. With IMAX screens in mind, Nolan commissioned a new 65mm B&W IMAX stock – an unusual and daring choice that made the film one of the most expensive auteur productions in history for mass distribution. The risk has been highly rewarded by box-office revenues and awards ("Cinematographer Hoyte on Christopher Nolan's *Oppenheimer*").

7. Auteur Cinema: Aesthetic Identity

Along with genre appropriation, the evocation of the past, and craft, some cinema auteurs also use film stock to reinforce their artistic commitment, aesthetic identities, and the authenticity of their imagery. These filmmakers embed analog not just within their narratives but as part of their paratextual identity: "shot on film" becomes a declaration of craft and cultural distinction (Thompson 2022). At the same time, directors like Wes Anderson, Paul Thomas Anderson, and Charlotte Wells, manage to reinvent cinema genres.



Figure 5. The French Dispatch, by Wes Anderson (2021)

Set in a fictional 20th-century French city, Wes Anderson's *The French Dispatch* (2021) has been described as a love letter to journalists. To recreate a tactile archival aesthetic that recalls mid-century – post-WWII – photographic media and journalism, Wes Anderson shot both in color and in black-and-white 35mm (Hemphill 2021). Following the adventure of an American magazine editor in France who sends stories about French life to the US, the film's narration jumps from one story to another, with color switching after each, marking time shifts and emotional variations.

The coming-of-age story of *Licorice Pizza* (2021) by Paul Thomas Anderson recreates a completely personal 1970s Southern California mood, using 35mm and vintage Panavision C-Series anamorphic lenses for a mostly handheld camera, whose fluidity restitutes the characters' quest for a sense of life and love, embedded in a material nostalgia.

The mixed use of film and digital media contributes to the emotional realism of Charlotte Wells' *Aftersun* (2022). The director pairs 35mm shots with mini-DV footage to obtain a specific temporal grammar. Wells used the MiniDV format to evoke the banality and nostalgia of home holiday videos, which often act as a “character” or a “time portal” in the film. Analog film serves as a vehicle for exploring memories: 16mm-shot flashbacks convey instability, uncertainty, and loss. Film stock is juxtaposed with vintage digital footage in a call-and-response between opacity and clarity.

Recent theatrical releases confirm this trend's continued momentum. In 2024, Robert Eggers' *Nosferatu* employed 35mm Kodak Vision3 500T with vintage Baltar lenses and desaturated color filtering to create atmospheric horror rooted in 19th-century Romanticism, while Brady Corbet's *The Brutalist* revived VistaVision format (unused since 1961) to capture period-drama architecture with minimal distortion and tactile historicity. Sean Baker's Palme d'Or winner, *Anora*, used 35mm anamorphic to evoke 1970s New York grit. In 2025, Ryan Coogler's *Sinners* employed both IMAX 65mm and Ultra Panavision 70 for a Jim Crow-era vampire horror, demonstrating analog's genre-specific deployment across horror, auteur, and period categories.

8. Experimentations and Film Schools

A resurgence in film stock use is evident among film schools and experimental artists,

who primarily adopt Super 8 and 16mm formats. These film stocks require lighter, less expensive cameras, which are easily found on vintage online markets, allowing a much lighter setting to shoot. In filmmaking training in schools, educators highlight how film's slower pace and limited footage help better plan shoots, structure procedures, and valorize precision, coordination, communication, and shared critical choices (Hagener 2022).

Beyond the U.S. based examples, Payal Kapadia's *A Night of Knowing Nothing* (2021), a French-Indian co-production, primarily shot in India, focusing on student life and protests at the Film & Television Institute of India. Shot on B&W 16mm, it juxtaposes documentary with diary aesthetics, framing analog not as historical residue but as emotional immediacy ("A Night of Knowing Nothing").

Among young filmmakers, the readoption of film is often accompanied by a fusion with digital footage and post-production tools, opening up new expressive potentials, boosting research, subjectivity, and new languages. This hybrid adoption seems to give younger filmmakers greater poetic freedom, richer sensorial potential, and deeper exploration of personal identity and memories, when the decay of celluloid serves as a metaphor for personal and collective erasure.

9. Conclusions

The phenomenon of analog resurgence in filmmaking has emerged as a form of resistance to the overwhelming homogenization of fast, solitary consumption of digital content. This produced what Hagener (2022) defines as "analog nostalgia as aesthetic critique." But analog re-adoption has soon embraced the path of cultural and auteur distinction, drawing cinephiles to IMAX collective rituals, to be followed by mass, yet niche, audiences worldwide. The keywords for these filmmakers and their audiences are texture, authenticity, and temporality. Material specificity has therefore become a form of cultural negotiation and artistic exploration, embracing personal storytelling and style beyond mere entertainment. This new craving for originality has been driven not only by auteur titles but, in terms of genre acuity, by horror and period drama films. Although the phenomenon remains selective, with the implication of unplugging from digital bulimia, it has the potential to expand beyond the limited temporality of a fashionable wave toward cultural heritage.

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The Smooth and the Stuck: A Contingent Experiment and Its Remainder

The return of analog media tends to be read as a cultural symptom. Film photography resurfaces in cities saturated with digital imaging; vinyl circulates alongside algorithmic streaming; handwriting persists within environments of predictive text. These phenomena are often interpreted as nostalgia, as the fantasy of authenticity reasserting itself against abstraction, as resistance to a regime of dematerialization. Such interpretations share an assumption that rarely surfaces as one: they take the relation between analog and digital to be fundamentally oppositional, as if what returns does so from outside the system it inhabits, from a ground prior to or exempt from the field of technics. Such an assumption allows for re-instrumentalization: understood as such, something like the analog becomes productive and consumable again, without its symptomatic character being able to be taken seriously in full depth. The condition of return, on this account, is exile.

The analog resurfaces within a field it never really left, and it does so under conditions that transform what it is. Once freed from the necessity of its original functions, whatever it was, analog media no longer operates as infrastructure. They become available as surfaces, configurations of a field that has changed around them. Obsolescence is not terminal. It is the condition under which mediation can become perceptible in a new way.

Something has shifted in the structure of mediation itself. The contemporary technological environment is organized around the reduction of cognitive, temporal, and material resistance. Friction — the weight that mediation, whatever the kind, exerts on experience, the way it slows, complicates, and makes action consequential — has become, within such environments, the primary target of design. Platforms compete by rendering interaction effortless. Artificial intelligence extends this logic to thought itself: essays write themselves, decisions are algorithmically anticipated and companionship is simulated. The result is not the disappearance of friction, but its displacement. Resistance migrates from the interface to the infrastructure, from

the visible surface of interaction to the invisible substrate on which it depends. The frictionless screen rests on a friction-saturated material world; the two function as communicating vessels. There is a history, inside that of technological development, that has to do with our own cognitive structures: a history of mediation.

1. The Structure of Resistance

Massimo Recalcati's diagnosis of contemporary subjectivity begins with a disappearance. It is that of the unconscious; not its literal evanescence, but that of the symbolic structures through which the unconscious had functioned: the authority of limits, the opacity of language and the deferral that desire requires in order to remain desire. In the Lacanian framework Massimo Recalcati inherits, the unconscious is a structure of resistance, the insistence of what does not resolve into conscious intention, what will not be, and cannot be, immediately satisfied. Subjectivity takes shape in the encounter with this resistance, which is the world itself and its total inarticulability. Where satisfaction is deferred, desire persists as a structure. Where delay is abolished, something else takes over: drive, compulsion, the repetition of a circuit that no longer passes through the dimension of meaning (Recalcati 2010). The subject does not simply disappear in such a scenario, but is captured, held in the loop of immediate response and deprived of the distance from which it might have oriented itself.

The structural logic Recalcati diagnoses, at the level of the subject, finds its precise technological correlation in what Shoshana Zuboff has analyzed as the behavioral modification infrastructure of surveillance capitalism: platforms engineered not merely for efficiency but for the anticipation and preemption of friction. Environments in which the interval between impulse and action is progressively closed (Zuboff 2019). Bernard Stiegler pursued this displacement into the structure of gesture itself: digital technics grammatize practice, decomposing and externalizing the forms of know-how through which action becomes consequential. Through which, a subject acquires a relation to what it does rather than merely managing an interface (Stiegler 2010). What popular commentary names a design philosophy — the “frictionless universe” that promises to remove cognitive resistance from everyday interaction (Scanlon 2024) — Byung-Chul Han names political aesthetics: the smooth as the systematic elimination of negativity from social and technological space, the removal of everything that resists, delays,

or exceeds immediate revision (Han 2015). Friction does not disappear in such environments. Its displacing is rendered invisible at the point of use while intensifying in the substrate that sustains the smooth surface: airports malfunction, supply chains collapse, public systems decay.

The distinction that matters here is how a practice relates to resistance. A server crash, a network delay, a glitch: these remain external to the operation they interrupt. Accidental in the sense that the practice has not organized itself around them, has not made them its own. Yet the same resistance, inhabited differently, becomes something else. Vinyl crackle, film grain, the specific failure modes of analog equipment began as malfunction and ended as form — the practice absorbed them until they became generative, until the limit was no longer something the practice suffered but something it thought through. The sonnet's fourteen lines are constitutive not because constraint is ontologically different from malfunction, but because the practice has built itself around that resistance, and has taken it as the condition of its own possibility. What defines constitutive friction, then, is not its origin but this act of inhabitation: the movement by which a practice takes a limit as its own and organizes itself around the encounter with it. Jean-François Lyotard speaks of the inhuman as the pressure that thought exerts on itself — the resistance immanent to the movement of thinking, which keeps thought from collapsing into communication (Lyotard 1991). Constitutive friction operates in this register: not as an essential property of the obstacle, but as what a subject does with what resists it, constituting both a practice and that very subject through practice.

When analog media reappear within a frictionless field, they reopen the possibility of inhabiting resistance, that is, of taking limit as the condition of a practice rather than its interruption. They do not restore an earlier regime, and most importantly they do not oppose the logic of immediacy from outside it. They perceptibly render what that logic tends to suppress: that mediation takes form through limit, that gesture acquires weight from irreversibility and that the subject is constituted, not simply expressed, in the encounter with resistance.

2. Expenditure, Acceleration, and the Reorganization of Value

Georges Bataille's account of utility begins with violence. Things are seized by their function before they can appear as anything else. The useful does not designate a property that objects happen to have; it designates a demand that precedes experience and structures what can

appear within it. What cannot be integrated into circuits of production, return, and circulation is not simply excluded, but much more interestingly, it is rendered *unintelligible*. Deprived of any claim to recognition within the field of value (Bataille 2023). Movement through the useful is *smooth* in a precise sense: it passes from one operation to the next without residue, without the weight of a gesture that cannot be dissolved into its purpose.

The acceleration that defines contemporary technological environments intensifies this logic. Hartmut Rosa has traced how the compression of time into efficiency progressively forecloses the possibility of resonance, the encounter with something genuinely other, something that resists absorption into available categories. Where everything is immediately accessible, response becomes instantaneous and the interval in which a self might be altered by what it encounters contracts toward zero (Rosa 2013; 2019). Paul Virilio identified the same tendency through the concept of *dromology*: speed as a political technology that determines what counts as real by determining what arrives in time to be registered. When the future no longer arrives as something to be awaited, when it has been compressed into the management of interfaces and the anticipation of demand, delay appears structurally as dysfunction — something to be corrected by design, pre-empted by prediction: in the logic of the platform, it must be erased.

Within such a regime, what Bataille calls expenditure — the gesture that does not justify itself through return, the intensity that cannot be reduced to function — occupies an increasingly precarious position. It does not circulate. It accumulates, lingers, insists at the margins of optimization. Film photography no longer competes with digital imaging in efficiency; handwriting does not rival the plasticity of typing on a laptop. Their persistence introduces something else: gestures that carry consequence, and that bind action to its trace. A certain persistence of irreversibility. The obsolescence of these practices is their mode of operation. Freed from the demand to function as infrastructure, analog media begin to occupy the space of expenditure as practices that reintroduce irreversibility into a field organized around the elimination of consequence.

Frictionlessness is a temporal form. It is the organization of time as instantaneity, of experience as the continuous present tense of interface management. What analog practices reintroduce is duration: the time of development, of sequential listening. A handwritten line that

cannot be revised without leaving traces. Duration is different from slowness. It is the temporal form of consequential action, the mode in which mediation becomes something that matters.

3. Within the Field: Laruelle and the Analog's Immanence

The familiar move, when confronted with the apparent conflict between analog and digital, is to read it as a contest between ontological orders: material presence against digital abstraction, embodied experience against disembodied information. This move reproduces the very logic it seeks to contest. It posits a ground from which one order could stand in judgment of the other, and in doing so reinstates the structure of transcendence that keeps the opposition in place. François Laruelle's account of the techno-logical field displaces this move at its root.

What Laruelle calls the techno-logical field designates a space in which *technē* and *logos* are not prior to one another and do not stand in an external relation. Production and inscription coincide. To make is already to define, to decide, to inscribe a relation within a field that the making itself sustains. There is no position outside this field — no natural ground, no pre-technical materiality, no pure experience — from which technology could be judged or opposed. Every gesture, every critique, every apparent withdrawal from mediation remains within the same movement (Laruelle 2020). The opposition between analog and digital, far from naming an ontological divide, is itself a philosophical decision: an act of inscription within the very field it claims to describe. Laruelle would recognize in it the structure of *auto-position* — the movement by which thought installs itself as the measure of the real by deciding its structure in advance, passing through the real without encountering it. The analog/digital binary is frictionless in this precise sense: smooth, self-confirming, organizing experience into tidy categories that conceal the actual texture of mediation.

Within the techno-logical field, analog and digital practices, are differential modes of organizing the same movement. Technological systems tend toward continuity, toward integration, seamless circulation and the reduction of discontinuity wherever it appears. Frictionlessness follows this tendency as its expression. The field is not uniform, however. It admits inflections, densities, local variations in the distribution of resistance. Analog practices emerge as such an inflection. They do not restore a lost origin or exit the field of technics, which amounts to saying nothing: instead, they alter the rhythm of mediation from within, introducing

consequences where systems tend toward reversibility and opacity where interfaces aim at transparency.

When the analog appears to resist the digital, when its return is narrativized as opposition or as the recovery of the human within the inhuman field of technics, this narrative is already a philosophical operation — one that covers over the more interesting fact: that analog practices intensify the techno-logical field differently, speak within it in a different register, thicken the present in ways that open the space of what can be made. The return is a modulation, a local reconfiguration of how mediation distributes consequence and visibility within the same continuous field. Where frictionlessness tends toward the self-erasure of mediation and toward a condition in which the process of inscription disappears behind its product. The analog makes the process visible again, and in doing so reopens the question of what the field might sustain.

4. Conclusion: Friction as Form

Frictionlessness can be understood, at this point, as a contingent historical experiment rather than a terminal condition. The experiment consists in testing whether practice can be fully detached from the resistance through which it takes form — whether mediation can be rendered transparent, whether the distance between a subject and the world it acts within can be progressively closed until nothing remains but the immediacy of execution. What the experiment reveals, by pursuing this possibility to its limit, is that it cannot be completed. And not because of technical failure, because of our yet limited engineering. The distance mediation determines is constitutive. Mediation is what makes the relation between subject and world *a relation* — what prevents action from collapsing into reflex and gesture into operation. Mediation is what makes us *not automata*.

The analog return becomes legible against this background as something more precise than cultural resistance or nostalgic reaction. It is the moment of recognition that the experiment produces: the point at which what frictionlessness attempted to eliminate reappears, from within the field of technics, of mediation, as the structural remainder the experiment could not absorb. A practice that takes limit as its own condition, that inhabits resistance until it becomes generative, does not oppose the logic of the smooth. It makes visible what that logic had rendered invisible, namely that every practice was always this, always a form built around

a relation with the world it could not fully master, always bound to a distance it could not close.

This is not a prescription for the analog, nor an argument against the digital. It is a claim about the structure of practice as such, one that frictionlessness, paradoxically, makes available for the first time by suspending it. What comes after the experiment is a transformed understanding of what mediation always was: the analog return is exactly the symptom of the fate of this self-experiment we crafted with our own cognition. The question that remains open is not how to reintroduce friction into frictionless systems, as if resistance were a supplement to be added by design. It is whether the recognition the experiment has produced can become the basis for practices (analog, digital, or otherwise) that are built with that constitutive distance already acknowledged, already visible, already held as a shared condition rather than concealed as an obstacle.

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Photographing Developer Trays

All darkrooms have a tray specifically designated for developers. As a professional silver gelatin printer and artist, I have spent countless hours hovering over my own developer tray producing exhibition prints for photographers, galleries and museums. After a decade of consistent printing, my developer tray's appearance became a direct reflection of its treatment. Years of usage, maintenance, developer type and level of print agitation all contributed an appearance unlike any other. Every accumulated tone mark, silver deposit and chemical stain is present because of the continual repetition of my print processing habits. My developer tray, initially sterile, generic and manufactured, has become one that is uniquely mine.

I knew that the transformation of my developer tray would not be a singular case; all photographers' developer trays become unique through usage. Beyond color, shape and size, every developer tray also possesses a distinctive history. A developer tray is the location where analog photographers see their work come to life for the first time, where an image materializes in a matter of seconds. Once photographed and presented to a larger audience, the narratives within a developer tray can evoke the archives of each photographer in the mind of the viewer.

Between 2010 and 2014, I traveled throughout the United States photographing eighty-two trays for my monograph, *Developer Trays*. I entered the darkrooms of working practitioners and met artists I had admired since I first began photographing. I was granted access to photograph artifacts housed in major collections and introduced to previous assistants and surviving family members of notable photographers. I also visited houses and artists' studios throughout the country. Although I photographed numerous trays of the same model and size, no two were ever identical, as none shared the same experiences and treatment.

After photographing my own developer tray, I began this project for whom I had printed, Mark Seliger, and Barbara Mensch and another that taught at the School of Visual Arts, where I was completing my Master of Fine Arts. Seliger used a dark brown developer tray to

produce exhibition prints of numerous projects as the chief photographer for *Rolling Stone* between 1992 and 2002. His method of filling this tray to the brim with developer is evident, as the tray is stained in a uniform manner throughout. Barbara Mensch's bright, red tray was used to print iconic images of the South Street Seaport and the Brooklyn Bridge. Her developer tray has rich silver deposits on most of its surface, but you can also see that Mensch attempted to scrub all the silver off its surface but gave up shortly after she began. Sid Kaplan, who taught at the School of Visual Arts, allowed me to photograph the tray that he used for over sixty years to print countless iconic images of Robert Frank and Weegee, among others. We met in the hallway, where I arranged to photograph the tray in SVA's Photography Studio. The tray's scratches, silver deposits, and pattern marks remain as evidence from years of his specific printing process.

When I visited Emmet Gowin at his Pennsylvania home a few months later, I was greeted by his wife, Edith, whom I immediately recognized from years of studying Emmet's photographs of her. Emmet came downstairs from his darkroom carrying about five developer trays for me to photograph. This was the first time I was given a group of trays to choose from, and I was excited about the opportunity to choose a tray that could serve as a representation of his darkroom process. Gowin had used the developer tray I photographed since the mid 1960s, and its colors are a magnificent blend of purple, magenta and blue, with the words "Dektol" written on the right side in his distinctive penmanship. Photographer and artist David Maisel, who was once Gowin's assistant, wrote to me, "I recognized Emmet's tray right away. How strange is that?" (Maisel).

My hypothesis was coming together: developer trays are singular, extraordinary, recognizable, as well as significant. My photographs would serve as documents of well-used photographic objects that were too often unconsidered and overlooked. Abe Frajndlich reached out to me with a developer tray that was once used by his former instructor and collaborator, Minor White. Inherited after White's passing, along with other darkroom equipment, Frajndlich used this tray for his own photographic projects, including portraits of artists and celebrities. The extended histories of these objects often connect artists who collaborated and worked together at different stages of their careers. Edward Mapplethorpe possesses a stark stainless-steel tray

that he uses for his own photographic work. While it appears clean and sterile, this 20 x 24 tray had been used for nearly forty years in the darkroom of his brother, Robert Mapplethorpe, in the creation of some of the most influential work produced in New York City in the 1980s.

I visited Ralph Gibson and photographed the tray that he used for much of his fine art black-and-white work. When I visited his studio, he showed me several items that he had in his darkroom, including an old Leica enlarger used by Robert Frank to print *The Americans*, which was later owned by Larry Clark, before being passed onto Gibson. He also brought out another tray for me to photograph: a stainless-steel tray that used to belong to renowned *LIFE* photographer Andreas Feininger. Feininger had given it to Gibson in the mid-nineties and Gibson continues to use it today. A year into the project, it became clear that the individual histories of each developer tray were as significant as the artist's treatment and processing habits. My photographs highlight these trays as objects of historical significance, presented as a typology with the detail of a view camera.

Andrea Modica uses the golden-colored tray I photographed to process all her large-format negatives from projects such as *Treadwell* and *Barbara*. She affectionately calls it her "mojo" tray, of which you can see four ovals' impression from where she continually places her fingers when she agitates her 8 x 10 negatives. Aaron Siskind had his assistants bleach his developer tray after every use out of the fear that a dirty tray would contaminate his prints. This tray was used for many abstract images created up until his death in 1991. Linda Connor's purple and blue developer tray displayed stains and markings unlike any other that I had photographed. After years of printing smaller paper in a larger basin, Connor's repetitive agitation pattern resulted in an overlapping square pattern on its exterior, and circular markings on its interior. Lillian Bassman's developer tray was originally a clean, black, plastic mold. She added potassium ferrocyanide into the developer tray to bleach the print while the image was still processing. The blue coloration found throughout the surface of her developer tray is because of this unique bleaching technique that was such an important part of her process. Bassman's bleaching process was often seen in her fashion and editorial work published in *Harper's Bazaar*.

Neil Selkirk was responsible for printing Diane Arbus's estate prints immediately after

her death in 1971. When he began this endeavor, he did not have enough trays in his darkroom to produce all the work that was assigned. Selkirk reached out to Richard Avedon's studio, and they gave him a few trays, including the 16 x 20 tray I photographed for this project. This tray was used by Selkirk until the early 2000s when small cracks appeared on its surface. Concerned that these cracks might scratch the emulsion of his prints, he decided to retire this developer tray from processing, and he began to use it as the tray that raised his print washer. Facedown in the sink during printing, Selkirk's developer tray became a beautiful green, with yellow and blue accents.

Vera Lutter's long trough tray was used in the production of her mural camera obscura prints in the United States. It was used consistently in the shipping container cameras she constructed until it was cleaned out with boiling water, which made it a slightly abnormal shape. Because of the fond memories she has of the images that were produced inside this developer tray, she still hasn't thrown it away.

I was fortunate to have visited and photographed some extraordinary archives that contain developer trays. The Photo History Collection of the Smithsonian Institution held multiple developer trays in their collection, one of which was from the 1840's, used by John Draper, one of the earliest photographers in the United States. Draper is credited with creating the earliest surviving daguerreotype of the moon, as well as some of the first portraits of Americans.

The developer tray from the Photo Studio of the Metropolitan Museum of Art was used in early black-and-white processing for book and catalog reproductions. This tray was made of a composite unlike any other tray I photographed and has an unusual shape and size.

I reached out to Michael Adams, Ansel Adams's son, to ask if any of his father's developer trays still existed, and he invited me out to California to set foot in his father's darkroom and choose a tray to photograph. In making a project about the darkroom process, including Ansel Adams' developer tray was essential.

Upon arrival, I was pleasantly surprised to find his darkroom set up as it had been when he was alive, complete with a full sink, a few enlargers, and numerous trays of all shapes and sizes. It was easy for me to imagine Adams producing his master prints in the exact location I was standing. After photographing multiple trays under the natural light in their entryway, Mi-

chael invited me to stay for lunch on their deck overlooking the Pacific Ocean.

While eating, we looked out on the landscape photographed by so many of the great f/64 photographers and gazed upon a pod of humpback whales breaching in the distance.

When I visited Sally Mann's darkroom in Virginia, she shared a collection of interesting and well-used developer trays. A yellow 20 x 24 developer tray, dramatically transformed from its original condition as a direct result of Mann's darkroom practices and habits, immediately caught my eye. Photographed outdoors, placed on black velvet near the front door of her home, and in the company of multiple dogs curious about what I was doing, this weathered developer tray was documented on the same ground as the work from *Immediate Family* and other notable works.

Adam Fuss' 40 x 50-inch developer tray was the largest that I photographed for this project and was used in the creation of many of his photograms. This custom-made, stainless-steel tray has glow-in-the-dark markers used for reference during exposure, and you can see slight reflections of Fuss's studio in the tray itself, including shelving and crates that house live snakes that he often used in his photographs of the time.

As my project grew and I connected with more photographers and estates, I was fascinated that some developer trays seemed to live on, given from one photographer to another and still cherished to this day. However, others were thrown away, such as those of the Richard Avedon and Irving Penn Studios, as well as Cindy Sherman and Richard Benson.

When I was photographing for this project, darkrooms were closing and photographers were switching exclusively to digital. I contacted as many photographers as I could in hopes to photograph their developer trays before their darkroom equipment was discarded. Had I begun this project five or ten years later, many of the trays I photographed might have already been thrown away or misplaced.

Among all the objects that are used in the analog production of images, the developer tray is exceptionally significant. Darkroom trays are most often fabricated in a factory. Once one is used as a developer tray, this inexpensive and ordinary object becomes something unique that can be used repeatedly by the artist. With each use, the tray continues to change color, embedding silver from processing, and developing unique markings because of its persistent

treatment. Along with its longevity comes the growing number of prints that have been, and continue to be, produced in its basin.

There is no object from a photographer's digital process that has the functional longevity of a well-used developer tray. Digital cameras, printers, scanners, and computers continually need to be upgraded and often become obsolete after just a few years. A developer tray does not face this predicament and is rarely replaced by a newer model. While prints, negatives, and cameras are often archived and catalogued, the utilitarian developer trays of historical photographers will continue to be discarded or misplaced because they are often deemed insignificant.

After viewing my photograph of his developer tray, Richard Misrach wrote, "...that single image holds a tremendous personal history, the simple photographic document containing so much latent information waiting to be released—like a hand grenade—as all photos do" (Misrach). This product captures an essential aspect of the individual darkroom experiences of these photographers that have been recorded for posterity, ready to captivate our imaginations with each viewing of these thoroughly transformed and unique utilitarian objects.

Even when the darkrooms housing the developer trays, I have photographed close, these intimate objects will live on through my photographs, just as a photographer's historically significant image can always be visualized in our collective minds.

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Stop-Motion: Where Time Is Sculpted, and Space Comes Alive

For centuries, only magicians were able to deceive the human eye. Illusion belonged to the realm of ritual, trickery, and performance. With the advent of photography, cinema, and later digital visual effects, illusion became technological. What once required sleight of hand became a matter of apparatus. Within this historical arc, stop-motion animation occupies a peculiar position. It is both technological and artisanal, mechanical and manual. It animates the inanimate not through simulation but through touch. In an era defined by digital elasticity, where images can be endlessly revised, recalculated, and corrected without material consequence, the persistence and renewed visibility of stop-motion require critical examination.



Figure 1 and 2. Lorenzo Omero and Nora Ferrucci during the backstage of “Xmas”

This paper argues that stop-motion’s material constraints function as productive forces. The data in support of this thesis via a combination of a semi-structured interview with Tim Allen, and a visual and historical analysis of videographic materials. Stop motion’s irreversibility, gravitational embeddedness, and physical resistance generate aesthetic specificity and cultural value. Rather than competing with CGI on the grounds of realism or efficiency, contemporary stop-motion positions itself as a deliberate aesthetic and philosophical alternative, foregrounding a different conception of the image’s fundamental status.

More than nostalgia, stop-motion articulates a distinct aesthetic and existential position: it is a mode of narration in which movement is materially transferred onto the puppet, environments are handcrafted, and action is fragmented into incremental micro-gestures. In doing so, stop-motion reaffirms an ontology of the image grounded in physical presence, manual labour, and the continuous performance of the animator.

1. Analog and Digital Fundamentals of Animation

In *The Craftsman* (Sennett 2008), Richard Sennett argues that manual making produces knowledge through dialogue between hand and material. Stop-motion embodies this principle: thinking unfolds through manipulation, light is reflected rather than rendered, and weight and scale are sensed rather than simulated. The spectator perceives this physical presence. In this sense, the medium reactivates cinema's ancient alliance with magic, not as illusion detached from labor, but as wonder produced through engagement with matter.

Stop-motion animation offers a rare confrontation with the limits of time and space, limits often suspended or erased in digital workflows. It binds the artist to real-world materials, gravity, and the constant passage of time. Time becomes sculptural and space becomes a miniature battleground of light, matter, and motion.

Computer-generated imagery operates within a regime of infinite reversibility. Animation curves can be adjusted indefinitely; camera paths recalculated; lighting redesigned without leaving any material trace ("Toy Story – CGI Making of 1995"). Space is mathematically constructed and computationally elastic. Gravity is a parameter. Scale is relative. The camera is virtual and can traverse walls, float without weight, or execute movements impossible for mechanical devices.

Error in CGI does not accumulate materially. It is undone. The workflow is iterative and non-destructive. The process tends to disappear behind the finished image. This regime produces extraordinary flexibility and establishes a visual ontology in which physical resistance is absent. Space is computed rather than built. Movement is calculated rather than negotiated.

Stop-motion operates according to a fundamentally different principle. A physical object is moved incrementally and photographed, frame by frame, to create the illusion of motion. To

produce one second of footage, twenty-four separate photographic exposures are required:¹ twenty-four gestures, twenty-four decisions. Unlike CGI, stop-motion is irreversible. Once a puppet has been moved and photographed, the previous state cannot be restored through a command. A mistake may require reconstructing a pose, re-lighting a set, or rebuilding elements of the environment (Purves, 189).



Figure 3. Stop-motion video "Xmas"

Gravity is not adjustable, it is a law ("Behind the Scenes of Wallace & Gromit"). Friction, weight, and structural fragility shape every gesture. The set must accommodate human bodies, tools, and lighting systems. Space is architectural and navigable because the animator must physically enter it, traverse it, and modify it. The camera is a real machine mounted on a rig.

Where digital space is infinitely extendable, stop-motion space imposes architectural, gravitational, and ergonomic constraints. These constraints do not merely limit movement; they structure it. Space becomes an active collaborator in the animation process. The puppet

¹ At twenty-four frames per second (fps), the longstanding standard for motion pictures, the sequence of still images becomes smooth enough that the brain interprets it as continuous motion. However, twenty-five fps is used in regions where the television broadcast standard is based on 50 Hz electricity (such as PAL regions in Europe, Africa, and Australia).

exists within and in direct contact with its own world. This direct material relationship between character and environment enhances narrative plausibility: the puppet and its world obey the same physical laws. Coherence emerges not from simulation, but from shared material conditions, producing a distinctly poetic form of expression within the medium.

Moreover, stop-motion follows a linear (Purves 94), direct, and organic process, an interpretation that advances one step at a time, producing a coherent animation through continuous embodied action. Unlike CGI, where sequences can be endlessly revised out of order, stop-motion unfolds sequentially. Each gesture grows out of the previous one. Performance is continuous and cumulative rather than modular.

2. A Critical Genealogy of Stop-Motion

Stop-motion magic has a long history. The genealogy of stop-motion begins in the early twentieth century with *Władysław Starewicz*, a Polish-Russian animator and director. While filming beetles at the Natural History Museum of Kaunas in 1910, intense studio lights killed the insects. To complete the scene, Starewicz articulated their bodies and animated them frame by frame. From this experiment emerged *The Beautiful Leukanida* (1912), (Purves 23; Bessoni 9).

Animation here is literally the animation of the inanimate. Life is not simulated digitally; it is staged physically. Matter becomes performer through manipulation. Stop-motion thus originates in a gesture that combines scientific observation, technical ingenuity, and a form of secular magic.

In classical cinema, stop-motion became synonymous with spectacle. *King Kong* (1933) marked a decisive moment in the integration of animated creatures and live-action actors through the innovations of Willis O'Brien. In the animated fur of *King Kong*, slight shifts are perceptible, small disturbances caused by manual manipulation (Purves 85). These movements subtly remind the viewer of the animator's presence. Rather than destroying the illusion, they anchor it in material labor, reinforcing the tactile vitality of the creature. Later, Ray Harryhausen elevated the technique in films such as *Jason and the Argonauts* (1963),

perfecting compositing methods like Dynamation.² Stop-motion was, for decades, an industrial tool for cinematic special effects. It made monsters move. It gave form to mythological beings. It was cinema's practical magic. The turning point arrived with *Jurassic Park* (1993). Steven Spielberg initially hired Phil Tippett, winner of an Academy Award for *Star Wars* (1977) and the creator of the stop-motion short *Prehistoric Beast* (1984). The director planned to use stop-motion for dinosaur scenes, combined with animatronics. Despite excellent tests, he changed his mind after seeing the first CGI dinosaur prototypes. Stop-motion was abandoned for the film, and Tippett stayed on as supervisor. This was a watershed moment: stop-motion moved out of mainstream special effects production. At the very same historical moment, however, the technique was undergoing a different process of affirmation, a sort of renaissance of this medium. In 1993, Tim Burton's *The Nightmare Before Christmas*, directed by Henry Selick, was released in American Movie Theaters. This was the first full-length feature made entirely in stop-motion. With its fluid camera movements, made thanks to the use of Motion control,³ together with a cohesive story and an extraordinary variety of puppets, Tim Burton and his team demonstrated that the technique could generate complex and coherent narrative worlds. *The Nightmare Before Christmas* thus inaugurated a cycle of feature-length stop-motion productions that has continued uninterrupted to the present, consolidating the medium's position within contemporary animation as a distinct aesthetic and material practice.

In 1995, *Toy Story* demonstrated that entire narrative worlds could be generated computationally. No physical referent was required: the image was a simulation. In CGI, indexicality, the photographic registration of a physical object, is absent. The image does not record; it calculates. Only a few years earlier, *A Grand Day Out* (1989) by Nick Park introduced audiences to Wallace and Gromit. Viewers encountered fingerprints visible in the plasticine, irregular surfaces, and movements that were not mathematically smooth. These micro-imperfections produce a perceptual effect radically different from CGI imagery. The density of plasticine is perceptible. The movement carries slight hesitations. The viewer

2 Dynamation was a system combining live-action footage and animation in layered composition.

3 Motion control in cinema is a technique developed in the 1970s that allows camera movements to be recorded and repeated with extreme precision through motorized, computer-controlled systems. It was created to combine multiple identical takes for special effects in films such as

senses the animator's touch. Stop-motion consolidated its status as an autonomous cinematic language amid a broader transformation in the intrinsic nature of the image. Where CGI inaugurates a regime of simulation untethered from physical referents, stop-motion preserves material inscription. At the same time, the relationship between the two technologies is not oppositional. There are elements in which CGI remains virtually unmatched: phenomena that are soft, floating, smoky, furry, elastic, flaccid, translucent, or wet are often more efficiently and convincingly realized through digital tools. For this reason, CGI is frequently integrated into contemporary stop-motion features. A recent example is Guillermo del Toro's *Pinocchio* (2022), winner of the Academy Award for Best Animated Feature, whose visual foundation lies in stop-motion animation and is subsequently integrated through digital techniques. CGI is used for set extensions and environment expansion, as well as for atmospheric and particulate effects such as smoke, mist, dust, and sparks, and for weather elements including snow, water, and other fluids. By contrast, in *Coraline* (2009), fog was filmed separately against a green screen and then edited frame by frame to match the movements of the animated characters, preserving temporal coherence with the physical performance. Earlier films suggest that elements typically considered difficult to animate physically, such as fur, can derive expressive power precisely from their instability, turning technical limitation into expressive force.



Figure 4. Storyboard of the video “Xmas”

This analysis does not address the emerging role of artificial intelligence in animation. While AI increasingly automates tasks in CGI workflows, such as rigging, in-betweening, and rendering, its use in stop-motion, so far, remains minimal, affecting only peripheral aspects without altering the handcrafted core of production.

3. Constraint as Productive Force

Stop-motion exists within a set of constraints, temporal, spatial, and mechanical, as generative rather than limiting conditions. In stop-motion, twenty-four frames equal twenty-four irrevocable decisions. According to Jonathan Lucas, editor of *Corpse Bride* (2005), the American production achieved approximately two minutes of completed animation per week over fifty weeks. In an original interview conducted for this research, professional animator Tim Allen emphasizes the productive dimension of these limitations, arguing: *“Compared to CGI, where you don’t have these limitations, you don’t have weight or gravity. You can change the shape of an object. Well, to me, that is where creativity comes from. It is: here are the parameters of what I’m working with. I don’t have more time. I don’t have more money. We can’t get the puppet made again. It is what it is. The director wants this, how do I get there?”* (Allen, interview by Nora Ferrucci, 23 Sept. 2025). Thus, Allen’s perspective redefines stop-motion’s constraints as generative parameters. The physicality of the medium becomes the catalyst for a specific form of cinematic creativity that thrives on the very boundaries of the material world.



Figure 5. Nora Ferrucci during the backstage of “Xmas”

Scripts and puppet construction are often provisional, requiring improvisation. Allen explains: *“You often don’t know when you’re making a puppet or shooting a shot what it will need to do. Later, you discover the puppet was never made to sit down or touch the top of its head. There may not be time or money to make a longer arm. So you just have to use what you’ve got and try to make it work.”*(Allen, interview by Nora Ferrucci, 23 Sept. 2025)

Practical solutions combine optical tricks and physical manipulation: *“It might be that I take the arm off the puppet, rig it separately, bend the head down, and from the right angle it looks like the arm reaches. From another angle, they’re not even touching, but that angle works.”*(Allen, interview by Nora Ferrucci, 23 Sept. 2025)

Constraints operate at multiple scales: mechanical (the puppet’s range of motion), spatial (set architecture), temporal (irreversible frame capture), and institutional (budgetary pressures and departmental coordination). Time is both aesthetic and economic, redistributing labor across departments and carrying ethical implications. Allen highlights the negotiation between practical problem-solving and expressive articulation: *“First, I have to deal with the practical problems. The glass is heavy, it’s transparent, where do I put the rig? Then comes the art part: do I move the glass like a young baby, an old man, a teenage girl?”*(Allen, interview by Nora Ferrucci, 23 Sept. 2025)

Stop-motion’s limitations are not nostalgic remnants of pre-digital technology; they are active forces shaping aesthetic decisions. Each frame records the trace of physical intervention. Creativity emerges not despite limitation, but through it. The medium requires performance: the animator must first conceive a movement mentally, then map it into discrete, tangible steps, and finally transmit it to the puppet. This negotiation between imagination, material law, and technical constraint constitutes the unique expressive vitality of stop-motion. From Starewicz’s animated beetles to contemporary productions, stop-motion has remained a form of practical magic. After its displacement by CGI, the technique re-emerged as an autonomous artistic language that embraces constraint, foregrounds labor, and preserves the trace of touch. More than a century after its creation, stop-motion reminds us that illusion can still be crafted by hand.

4. Continuing the Practical Magic

All things considered, stop-motion's enduring vitality lies not in competing with digital technologies but in the constant negotiation with gravity, material resistance, and the irreversible passage of time. Each constraint, mechanical, spatial, or temporal, becomes a stimulus for invention, demanding practical ingenuity and embodied problem-solving. In stop-motion, the animator engages directly with a tangible world. The puppet is a resistant object, endowed with weight, texture, and structural limits, and meaning emerges from a sustained dialogue between body and matter, discovered through optical and material experimentation rather than computation. More than a technique, stop-motion is a fully expressive medium in which labor, materiality, and the incremental performance of movement are inseparable from creative vision.

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**Between Materiality and Time:
Botanical Photography and the Serendipity of the Creative Process**

1. Visual saturation, post-digital and the transformation of experience

Today, we live surrounded by more and more images, especially digital ones. Images are everywhere and shape how we see the world. With smartphones, social media and new technologies that create images automatically, images are not just something we look at; they are part of our daily lives and change how we experience reality. Technology has changed not only how images are made, but what images are and what they mean to us.

Today's image is intrinsically instantaneous, surprisingly modifiable and limitlessly replicable; it has become fluid, light and almost ethereal, seemingly devoid of that material friction that characterized its analog counterparts. In this scenario of iconic abundance, an apparent paradox manifests, brilliantly observed by figures like Joan Fontcuberta (Fontcuberta). He highlights how such proliferation does not necessarily translate into greater awareness or a deeper understanding of reality. On the contrary, excess can generate a form of perceptive anesthesia (Fontcuberta). The unprecedented speed at which images are produced, consumed, and forgotten, together with their vast quantity, tends to neutralize the image's inherent ability to leave a lasting imprint on individual and collective memory and to impact experience profoundly. Similarly, Fred Ritchin has acutely pointed out how the digital has not limited itself to redefining the tools of photographic practice but has triggered a true revolution in the temporality of the image itself, privileging immediacy and the ephemeral almost exclusively at the expense of duration and reflection (Ritchin). The concept of "post-digital" should not be misunderstood as a surpassing or abandonment of the digital, but as the realization of its complete normalization and integration into the fabric of our existence. The digital, far from being a simple technology, has transformed into an environment, a sophisticated infrastructure and an almost invisible yet omnipresent condition of our daily experience.

In this context, the crucial question does not pertain to the ephemeral possibility of abandoning technology, but rather to the ability to reintroduce those dimensions that the culture of instantaneity tends to marginalize: meditative slowness, sensory corporeality, the inherent vulnerability of the creative process and the risk of uncertainty. These dimensions represent a profound critical rereading of the contemporary. A further reflection on visual saturation leads us to consider *retinal fatigue*, (Ritchin) a cognitive exhaustion deriving from continuous exposure to an uninterrupted flow of visual stimuli. This phenomenon concerns not only the quantity of images but also their aesthetic homogeneity, often shaped by the same algorithms and filters. The effect is a diminished capacity for discernment and appreciation. The search for visual slowness emerges as a strategy of resistance, an attempt to reacquire depth of gaze and attention that the digital tends to erode. It is about rehabilitating vision as a conscious act, not an automatic reflex.

2. A return to materiality: an epistemological and sensory necessity

The progressive orientation toward alternative photographic processes, such as cyanotype and anthotype, does not represent a mere stylistic choice or a romantic escape from the contemporary. It arises from a deep necessity that is both practical and epistemological. It is not a nostalgic return to historical techniques for antiquarian pleasure, but a deliberate attempt to re-establish a more intimate and sensitive relationship with the act of image production, a relationship that the digital has often rendered abstract and distant.

Working with matter implies an inevitable and healthy reactivation of the body in the creative process. Preparing a cyanotype is a ritual that involves all the senses: it means mixing chemical solutions based on iron salts with the manual



Figure 1. Anthotype print using turmeric, chemically shifted with baking soda, featuring a vetch flower.

skill of an alchemist. Subsequently, one proceeds to spread them with a brush on the paper's surface, waiting patiently for drying, a moment when the matter stabilizes. The exposure of the sheet to direct sunlight is a direct interaction with natural elements, and finally, the washing in water reveals the unmistakable Prussian blue. Every phase is an intense tactile and temporal interaction with the support and the environment.

Similarly, the anotype is a practice founded on a deep bond with the natural and organic world. It requires the meticulous collection of plant materials selected for their pigmentation properties. The extraction of pigments is a laborious process comparable to preparing ancient remedies. The most characteristic phase is the prolonged exposure to the sun, which can extend for days or even weeks, a temporality that challenges contemporary impatience. The image emerges from this slow interaction as a direct testimony of the natural forces that shape it.

In both practices, light is not a passive recording factor but is "lived" as duration. The image forms through an organic process that incorporates changing atmospheric conditions, humidity and temperature. This interaction ensures that nothing is perfectly replicable; every single print is unique and situated. As Elizabeth Edwards and Janice Hart remind us, photography is also intrinsically an object, a body, a "thing" (Edwards). In alternative processes, this material and tactile dimension is constitutive. Irregularities and manual traces are not defects but integral parts of the work. This "return to the body" contrasts with the dematerialization of work in the digital economy.

3. Historical genealogies and poetic continuities

Investigating alternative processes reveals poetic and operative continuities that transcend eras. Cyanotype, developed in 1842 by John Herschel, was initially a scientific procedure for reproducing documents and botanical notes (Ware). However, it was the pioneering use by Anna Atkins in her *Photographs of British Algae* that transfigured the technique into a poetic and contemplative tool. By directly applying algae to sensitized paper, she created luminous imprints that established a mystical relationship between nature and light.

Similarly, the anotype, practiced by figures like Mary Somerville, is based on photosensitive plant pigments (Malin). Here, the image is inherently ephemeral, fading over time, a tangible testimony to the transience of all things. This characteristic introduces a

reflection on the finitude of the photographic object, contrasting with the illusory eternity of the digital. In these techniques, the distinction between science and poetry dissolves. The chemical process becomes a fertile space for sensitive experimentation where scientific curiosity fuses with aesthetic research (Batchen).

The echo of these techniques in the contemporary is a way to rediscover values like patience and material awareness. It is an invitation to view the history of photography not as a linear sequence of technological progress, but as a continuous field of dialogue between different worldviews. We must understand that the “obsolescence” of a technique is often a commercial definition, not an artistic one. A technique remains alive as long as it offers a unique way to perceive the world.

4. Slowness as a political gesture and a strategy of resistance

In a globalized system pervaded by constant acceleration, slowness as a conscious practice assumes a deeply critical and political value. Deliberately choosing a process that requires weeks of exposure is not an act of laziness but a decisive interruption of the dominant logic of capitalist efficiency and the demand for immediacy. Slowness elevates itself to a “pedagogy of the gaze.” The act of waiting modifies perception, affines the senses and imposes a reflective pause that allows for deeper understanding.

In teaching, this dimension is particularly effective. Students, used to rapid and controllable results, initially experience frustration with analog uncertainties. Progressively, they learn to observe infinitesimal variations of light and the importance of time as a constitutive element. Serendipity, the unexpected encounter with stains or partial images, transforms from



Figure 2. Wet cyanotype, altered with vinegar, dish soap, and turmeric powder, featuring a lily.

failure into a generative and creative element (Batchen).

Accepting error is a powerful antidote to the culture of digital perfectionism. Slowness is thus an ethical choice: an invitation to reconsider the value of patience and care in a world pushing us toward superficiality. It is a form of silent activism, a daily resistance to the logic of rapid consumption and planned obsolescence. By refusing the “instant,” we reclaim sovereignty over our time and our attention.

Too often, the creative process is mistakenly conceived as a mere sequence of instrumental operations leading to the finished product. However, the process is not neutral. It performs an intrinsic conceptual work that informs the image. Engaging in a slow or material-demanding procedure is a decision that implies a specific way of processing information and constructing meaning.

The long times required and the environmental conditions model what can be expressed. In this sense, the process becomes a form of reasoning, a way of thinking about the world through matter and transformation. Each technique possesses its own material grammar. Chemistry and surfaces follow autonomous and often unexpected logics that must be respected. It is an illusion to think one can separate the artist’s creative intention from the “here and now” of the matter.

Working this way means shifting the focus from the final result to the “becoming”. The primary question becomes: “What conditions and interactions make the existence of this image possible?”. Iterative gestures and the repetition of processes configure a form of investigation that refines sensitivity. Creative decisions become situational, shaped by the interaction with the material. This is an embodied learning, a knowledge that resides in the hands, eyes and the body’s awareness.

5. The praise of imperfection: Serendipity as creative gift

Material processes are inherently uncomfortable. They break the monotony of efficiency and resist the standardization of industrial logic. This discomfort should be valued as an authentic form of resistance against total control and absolute transparency. Failure is a structural component of the creative experience. Partial images or pigment losses are testimonies that the work takes place in the real world of contingency, not in a sterile, idealized environment.

When the process introduces uncertainty, authorship undergoes a profound redistribution. The

final image is no longer the exclusive product of a single sovereign will, but emerges from a complex interaction between the initial intention and the matter's unpredictable reaction. The artist becomes less of a "creator" in a demiurgic sense and more of a "facilitator" of a process that has its own autonomy.

This resistance is also a critique of the digital "cancel culture", where every error can be instantly corrected. In the analog world, the error is preserved, becoming a scar that narrates the process. Unexpected stains and irregular grains increase the image's complexity and authenticity. Rediscovering the pleasure of working with one's hands is a form of resistance against the progressive dematerialization of work and life. The imperfection is the crack through which the light of reality enters the work.

Material processes are extraordinary keepers of traces. They silently record repetitions of gestures, hesitations and fluctuations of intent. Over the years, a corpus of work becomes a repository of decisions and intuitions. Looking back at older works, patterns emerge that were not consciously planned: a greater tolerance for instability or a more mature balance between control and the unforeseen.

This is an embodied, cumulative knowledge that lives in the work's texture and chromatic nuances. It is the story of the hands that created it and the light that impressed it. These practices create an ancestral bond with the collective memory of photography. They remind us that before the era of pixels, the image was a physical object with its own history and limitations. This memory is also prospective; every new experiment adds to the artist's vocabulary and sensitivity.



Figure 3. Classic cyanotype, partially carbonated and then toned with madder root.

The accumulation of experience in the darkroom or the garden (in the case of anotypes) creates a procedural intelligence. This intelligence is not found in manuals but in the repeated friction between the subject and the medium. It is a slow sedimentation of wisdom that allows the artist to “feel” the light and “understand” the paper.

The concept of serendipity is central to this discourse. It refers to the ability to make valuable discoveries by chance while looking for something else. In the context of botanical photography, serendipity manifests when a plant juice reacts unexpectedly to humidity, or when a cyanotype develops a “solarization” effect due to overexposure.

These are not mistakes to be eliminated but gifts from the process. Embracing serendipity requires an open mind and a humble attitude. It means acknowledging that the world (and the materials we use) has a voice of its own. This dialogue with the unexpected is what makes alternative processes so vibrant and vital compared to the predictable output of digital filters.

6. Conclusion: a manifesto for the post-digital era

If the creative process is a primary actor that models meaning, it deserves constant and profound attention. It is not a neutral passage between intention and result, but a living territory where thought, gesture and matter converge. In an era of instantaneous images—where production and consumption collapse into the same fleeting moment, the deliberate slowness of cyanotype and anotype stands as a vibrant manifesto for re-inhabiting the contemporary with awareness. Through dilated duration, exposure to uncertainty and the celebration of fragility, photographic practice becomes an intimate relationship with the body, light and history. The image is no longer extracted from reality; it is grown within it.

Slowing down means questioning the dominant logic of efficiency and optimization that shapes not only technology but perception itself. It means resisting the idea that value lies in speed, clarity and immediate visibility. The image, freed from its function as a mere product or visual commodity, becomes the trace of a lived encounter, an expression of a way of thinking and inhabiting the world through the mediation of matter and light. In this sense, slowness is not nostalgia, but a critical methodology. It is a radical act of vision, a form of poetic resistance that allows us to rediscover the intrinsic magic of creation in a frantic and often disenchanted world.

To work with processes that depend on sunlight, oxidation, vegetal pigments, and

time is to accept vulnerability as a constitutive element of authorship. The outcome cannot be entirely controlled; it must be negotiated. This negotiation repositions the photographer not as a sovereign operator, but as a participant in a dialogue with natural forces. The process becomes pedagogical: it teaches patience, attention, and humility.

We must conclude, then, that the future of photography does not lie solely in higher resolution sensors or faster processors, but in our capacity to remain “within” the process, to sustain attention, to honor duration, to respect the time of the sun and the nature of the leaf. Innovation is not only technical acceleration; it can also be an ethical deepening. To photograph is not merely to “take” a picture, as if seizing something from the world, but to “dwell” in the light, to inhabit it, to wait with it and to allow it to inscribe its passage upon matter and memory.

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From Hi-Fi to Hashtag: Vinyl Records Across Generations

In recent years, vinyl records have experienced a widely remarked revival in the United States. Once considered obsolete in the face of cassette tapes, compact discs and digital streaming, vinyl has returned to prominence as a cultural object associated with authenticity, intentional listening and aesthetic pleasure. Media coverage of this revival often frames it as an expression of nostalgia or resistance to digital culture, emphasizing the tactile qualities of the format and the ritual of analog playback. However, such narratives risk flattening the historical meaning of vinyl by treating the medium as culturally static. Vinyl records have not simply staged a comeback; rather, they have been recontextualized under very different economic, social and technological conditions.

This paper argues that the contemporary vinyl revival does not represent a return to an earlier cultural moment, but a reinvention of the medium's social meaning. During vinyl's first era, roughly from the 1950s through the early 1980s, records functioned as a mass-market format characterized by broad accessibility, standardized (generally affordable) pricing and broad genre representation within mainstream retail spaces. In contrast, vinyl's twenty-first-century resurgence is shaped by premium pricing, intentional scarcity and digital-age visual culture, positioning records as lifestyle objects and markers of cultural distinction rather than everyday commodities. By comparing these two eras, this paper highlights how vinyl's cultural significance has shifted from democratic accessibility toward curated exclusivity. Using archival photography, visual culture, and the contemporary phenomenon of Record Store Day as a case study, this paper examines how class, consumption and digital mediation have reshaped the meaning of a familiar format.

From the postwar period through the late twentieth century, vinyl records occupied a central place in American consumer culture. They were not niche items or luxury goods, but rather the dominant medium for recorded music, widely available in department stores, specialty

patterns of discretionary consumption, similar to books or recreational hobbies.

Equally notable in this image is the store's spatial organization. Large signs designate dedicated sections for opera, classical and folk music, signaling both the breadth of genres available and retailers' confidence that these categories had viable audiences. This genre segmentation reflects a mid-century cultural landscape in which a wide range of musical forms circulated within mainstream commerce. Vinyl records functioned as a shared cultural infrastructure rather than as markers of subcultural affiliation or lifestyle branding. In this first era, the act of browsing records was unremarkable. The shopper's posture, the packed record bins and the emphasis on price all point toward a culture of abundance rather than scarcity. Vinyl's meaning was shaped by its ubiquity: it was the default medium through which Americans encountered recorded music across generations and genres.

While vinyl's affordability and accessibility defined its economic role during the first era, the cultural significance of records was also deeply tied to visual experience. Album covers emerged as an important site of artistic expression, combining photography, illustration and graphic design in ways that shaped listeners' relationships to music. Of course, this visual richness also operated within a mass-market framework. Album art was not primarily about distinction or display, but about identity formation within a shared consumer culture. Janet Borgerson and Jonathan Schroeder's study of the midcentury LP argues that album art functioned as a form of "hi-fi living", a mode of lifestyle imaging that was nonetheless embedded in mass-market accessibility rather than elite distinction. The visual pleasures of vinyl were democratically available, circulating through ordinary retail spaces rather than specialized galleries or boutiques (Borgerson and Schroeder 1).

A well-known example is the cover of *Switched-On Bach*, Wendy Carlos's enormously influential 1968 album. The image depicts composer Johann Sebastian Bach seated before a modern Moog synthesizer, visually encapsulating the album's fusion of classical repertoire and electronic technology. The cover helped signal the album's novelty while also inviting listeners into a broader cultural conversation about technology, experimentation and musical tradition. Importantly, such imagery circulated widely through mainstream retail channels. Album covers were designed to be handled, browsed and displayed in record stores and homes

alike, reinforcing vinyl's role as a democratic medium even as it carried expressive weight. This integration of sound and image helped cement vinyl's association with generational identity. Records were not merely listened to; they were casually collected, shared among friends and displayed in living spaces without signaling elite cultural status. Visual engagement with vinyl complemented, rather than replaced, its function as a mass medium.

By contrast, vinyl's contemporary resurgence has unfolded under very different conditions. While sales figures suggest renewed interest, the context of consumption has shifted dramatically. Vinyl today is rarely the primary way listeners access music. Instead, records exist alongside streaming platforms, often serving a symbolic rather than practical function. This shift has profound implications for how vinyl is priced, marketed and, indeed, experienced. Modern vinyl is typically sold at premium prices, reflecting higher production costs, limited pressing capacity and the format's repositioning as a specialty product. New releases typically retail for \$30 or more, with deluxe editions priced significantly higher. Unlike the discount signage visible in mid-century record stores, contemporary vinyl pricing emphasizes exclusivity rather than affordability.



Figure 2. Photo taken for Record Collector Magazine Photo Shoot in Marc's record room. Wikimedia Commons: https://commons.wikimedia.org/wiki/File:Marc_Mac_in_Record_Room.jpg

Equally important is the role of digital visual culture in shaping vinyl's revival. Social media platforms, particularly image-driven ones, have transformed records into highly displayable objects. Carefully curated shelves, color-coordinated pressings and aesthetically pleasing turntable setups circulate widely online. A photograph of musician and producer Marc Mac in his dedicated record room illustrates this transformation (Figure 2). Hundreds of

carefully organized records fill purpose-built shelving, reflecting vinyl's repositioning as a curated lifestyle object and a marker of cultural identity. In this context, vinyl's visual appeal often takes precedence over its sonic qualities. Ownership becomes performative, signaling taste, intentionality and cultural literacy. This emphasis on display marks a significant departure from vinyl's earlier role. Where mid-century record culture normalized casual browsing and routine purchasing, contemporary vinyl consumption often foregrounds deliberation and self-conscious choice. Records are no longer simply played; they are photographed, showcased and curated.



Figure 3. Customers lining up outside Repo Records, Philadelphia, on Record Store Day, April 16, 2016. Photo by David Hilowitz, licensed under CC BY 2.0. Via Wikimedia Commons.

Record Store Day (RSD), founded in 2007 to support independent record stores, offers a revealing microcosm of vinyl's reinvention. The event is built around limited-edition releases, exclusive pressings and intentional scarcity. On designated days, fans line up hours before stores open in hopes of acquiring rare items that may never be reissued. Photographs of crowds waiting outside record stores during the event illustrate a form of ritualized consumption (Figure 3). Fans often line up hours before stores open, hoping to secure rare releases that may sell out quickly. The scene differs markedly from the casual browsing seen previously in mid-century record stores. Instead of abundance and routine purchasing, Record Store Day centers on scarcity, anticipation and the fear of missing out. While RSD has succeeded in drawing attention to independent retailers, it also exemplifies the class dynamics of contemporary vinyl culture. Participation requires not only financial resources but also time, flexibility and

specialized knowledge. Early arrivals and larger budgets increase the likelihood of securing desirable releases, while others are effectively priced out. In this context, scarcity becomes a feature rather than a flaw, transforming vinyl into a competitive and status-oriented commodity. David Hesmondhalgh's analysis of the cultural industries offers a useful framework here: when cultural goods are artificially scarce, their symbolic value tends to rise even as their accessibility narrows. Record Store Day effectively industrializes rarity, using the logic of limited supply to generate both commercial demand and social prestige (Hesmondhalgh 47).

The pleasure of vinyl consumption is thus redefined. The "hunt" and the "score" become central experiences, amplified through social media posts that document successful acquisitions. Vinyl is no longer simply a medium for listening to music; it is an event, a collectible and a marker of cultural capital. These dynamics stand in sharp contrast to the accessibility and abundance that characterized vinyl's first era. Scholars argue that vinyl's revival reflects the growing cultural appeal of tangible media in an increasingly digital world. Bartmanski and Woodward suggest that vinyl records provide listeners with a sense of authenticity and material engagement that digital formats lack. The format's physicality—its size, artwork and tactile qualities—allows consumers to experience music as a collectible cultural object rather than an invisible stream of data (Bartmanski and Woodward 29).

Across both eras, vinyl records have carried cultural, visual and generational significance. What has changed is not the physical format itself, but the social conditions under which it circulates. In the mid-twentieth century, vinyl functioned as a mass medium: affordable, widely available, and integrated into everyday life. The visual and sonic qualities of records enhanced, rather than undermined, their democratic accessibility.

In the twenty-first century, vinyl's revival reflects a different set of priorities. Premium pricing, intentional scarcity, and digital-age aesthetics have repositioned records as lifestyle objects shaped by economic privilege and performative display. Rather than representing a simple return to the past, the vinyl revival reveals how older media forms are reimagined in response to contemporary class structures and visual cultures. Seen in this light, vinyl's resurgence is less a nostalgic echo than a reinvention. The format remains the same, but its meaning has fundamentally transformed.

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Making and Teaching Art in the Era of Its Normative Crisis

1. The S-Definition of Contemporary Art and the Loss of Meaning

Contemporary society is often described in terms of instability and partial inconsistency—features that are reflected in artistic production and taxonomy. The terms used to define it fall within a constellation of fleeting synonyms: it is “*Gaseous*,” according to Yves Michaud; “*Provisional*,” (Rubenstein 27) according to Raphael Rubinstein; “*Transparent*,” according to Byung-Chul Han (Han 9).

I adopt Nathalie Heinich’s definition of “contemporary art.” In *The Paradigm of Contemporary Art* (Heinich 7), she identifies a set of aesthetic-constitutive features that group certain artistic practices under the category of the “Contemporary.” A merely chronological classification now appears more insufficient and inadequate than ever, despite the resistance of many actors to being subsumed under a single genre (Ibid, p. 29). Legitimation through intermediaries, a degree of de-aestheticization, and a disruptive (often shocking) character set in opposition to what is perceived as the past effectively describe a type of art that has spanned several decades. This condition eludes a strictly temporal notion of contemporaneity while establishing itself as “Art” proper, as an interpreter of the present.

In this sense, contemporary art appears to embody the postmodern impulse to reject the Past and dismantle fixed reference points (Ran 49-59), embracing “*plurality*” rather than “*pluralism*” in the attempt to represent reality more faithfully (Crimp 77). The idea that contemporary society is marked by fragmentation and inconsistency—so sharply contrasted with the perception of a more or less recent past—is present in many sociological analyses. It seems to stem from scientific rationality and an acute awareness of complexity: hyper-specialization, multiculturalism, plurality, and the spatialization of being (understood as the expansion of the temporal sphere of simultaneity) (Harvey 273) all fragment and dissect the holistic-unitary vision that long appeared to be the ultimate aspiration of European intellectual elites.

Following the rejection of its traditional codifications, contemporary art attempts to “strip itself” of its superstructures, as if there existed a “naked” essence of art to which one might return (Barthes 143-146). Notably, the programmatic tendency to eliminate any form of mediation between the artwork (and thus the artist) and the viewer—ostensibly to guarantee a “pure” aesthetic experience (if such a thing exists)—has instead resulted in a proliferation of ancillary intermediaries within the art field (Heinich 135-146), along with the emergence of ambiguous figures such as the artist-designer, entirely removed from the material *process* of production (Barthes 116-17), in a not particularly fruitful attempt to *distill* creativity (Heinich 115-118).

Today, it seems impossible to assert anything with certainty in a society so fluid and invested in an almost *pornographic* dissection of reality (Han 10-39). Even attempts to define our era evade description: everything is *post*-something: *post*-ideological, *post*-modern, *post*-contemporary, *post*-political. Contemporary aesthetics (if one may still speak of aesthetics, when its programmatic destruction becomes its principal expressive value) retreats into *Data*, into the exposure of information (Heinich 64-70), into the presentation. As Jean Baudrillard writes: “Obscenity begins when there is no more spectacle, no more stage, no more theatre, no more illusion, when everything becomes immediate, transparent, visible, exposed in the raw and inexorable light of information and communication” (Baudrillard 18-27). Contemporary art extensively displays its own mechanisms, ostentatiously exhibiting itself in a convoluted, self-referential spiral, exercising only “The magic of its disappearance” (Baudrillard 34). In attempting to create meanings beyond the traditional code of image comprehension—through the deconstruction and evisceration of the mechanisms intrinsic to aesthetic experience—it has often become incomprehensible and inaccessible without a form of initiation (Flusser 1).

Another aspect of this “exposure” is the production of an art of the event: it merely happens, existing only in the moment of its presentation, often without “saying” anything but placing the viewer in the condition of something. Happenings, performances, and even seemingly concrete installations (consider the characteristic of site-specificity, often entrusted with the entire chain of meaning) are marked by transience and immediacy. The very fact that they begin and end with the event is regarded as a value, a synonym for truth.

In his analysis of photographic images, Roland Barthes articulates the dualism of aesthetic perception through two distinct elements. The first, which he calls *studium*, belongs to the “field of unconcerned desire” (Barthes 28). the dimension of casual observation in which images become “a kind of pasture for [the observer’s] gaze” (Han 47). This is a passive, almost bored form of consumption, semi-voluntary (Barthes 28), pleasant in the sense of the “like” (I like / I do not like). The second element is the *punctum*, the piercing detail that wounds the observer through its involuntary force (Barthes).

The shocking element is often a defining feature of contemporary art (Martens 25), yet it rarely possesses the capacity to *wound* (*Zampa et. al. 10*): what mere information lacks *studium*. Speaking of reportage photography, Barthes notes: “In these images, the *punctum* is absent: there is shock [...] but no disturbance. The photograph can ‘shout,’ but it cannot wound” (Barthes 29). The *punctum* escapes everything that lacks latent temporality—often sacrificed on the altar of viewer participation (who becomes actor-protagonist, sometimes even the work itself) (Heinich 86-88) or inhibited by the intrinsic characteristics of the medium (as in video art and multimedia experiences).

Claude Lévi-Strauss writes, regarding our relationship to the proliferation of images: “Isolated and static images act upon our mind in a very different way from those consumed in cascades” (Strauss 61). The image consumption characteristic of the communication age is marked by a bulimia of attention, despite a scarcity of space for reflection. In the anxiety of living and consuming, the dimension of intimacy—temporal and requiring duration—is lost. In the immediacy of possession, in the urge to seize a moment of participation, aesthetic experience is extinguished. The temporality of contemporaneity is fragmented.

Pornographic exposure arises from the need to eliminate friction and unveil the hidden. Contemporary society is characterized by *algophobia*—fear of pain (Han, Turin 8-11)—and thus avoids any form of wounding. The apparent shock of pulp imagery or provocative themes in fact negates that piercing reflexivity, annihilated by the pornographic exposure of smoothness, (as the absence of the hidden) (Han 38) expressed in the contemporary aesthetic experience of the “like,” (Han 16) the consumptive endpoint of the image. In a world characterized by *scrolling*, where the “new regime of attention” (Michaud 120) is scanning, “perception [...] occurs as

contagion, as affect [...] This type of perception lacks any aesthetic distance. Perception as contagion does not allow one to close one's eyes. Barthes's conceptual pair *studium/punctum* may be extended to *affectum*. The immediate conatus between image and eye permits only *affectum*. It knows neither the patience of *studium* nor the sensitivity to *punctum*" (Han 51).

2. A Didactic Hypothesis

The expansion of knowledge—metaphysically “concretized” in the structure of the World Wide Web—confronts contemporary humanity with an immeasurable infinity. This might be termed the “Wikipedia Paradigm”: each attempt to approach a subject opens a hypothetical window of hyperlinks, each leading to further dense connections, in an endless deferral of knowledge that can never be fully satisfied. It is unsurprising that, before such a reshuffling of codes and their consequent “vaporization” (Michaud 78-79) of the “substance” (Michaud) of art, one may feel blocked, annihilated by the infinite *possible*. As Byung-Chul Han observes, “*To Have* has limits; *To Can* does not. The restriction that derives from *can* is therefore limitless, placing us in a paradoxical situation. Freedom—supposedly the opposite of restriction—generates restriction itself” (Han 6).

The long-awaited liberation from the constraints of pre-modern art (academicism, manner, craftsmanship, objectness) has dismantled the code by which art could be deciphered. In the electrically mediated world (McLuhan 7-17) that contemporary art so anxiously pursues, “instead of connecting us more closely to one another, we are all becoming part of an increasingly disconnected world due to the disappearance of writing and meaning” (Strauss 51).

How, then, should one approach artistic education in a world where there seems to be nothing left to teach? Throughout my life, both as a student and as a professional working in the field of contemporary art, I have often witnessed manifestations of the systemic problems described above. In my view, such aberrations stem from a lack of awareness of the artistic process: either the absence of the artist within the production of the work itself, or a lack of consciousness regarding what is being done and which language is being renewed.

The avant-gardes (understood here as artistic expressions opposing the modern paradigm) or the new expressive “techniques” of contemporary art cannot be considered points of departure precisely because of their provocative nature. They find their meaning—one might

debate whether they retain it in a radically changed context (Rubinstein 69)— only as points of arrival. One might imagine approaching the study of music by beginning with 4'33" by John Cage: it would make little sense. Music retains a pedagogical structure still tied to “technique,” yet continues to renew itself, despite having undergone technological upheavals similar to those affecting art. Music has not (yet) flattened itself onto the sole principle of originality (Heinich 46-52, 73-79), perhaps due to characteristics intrinsic to the sensory sphere (Ong 76).

Artistic praxis restores awareness of the creative process: there can be no renewal without memory. Yet contemporary art lives in pure presentness, in the repetition of itself, in narcissism. “When there is nothing but renewal, fashion becomes the only measure of time” (Michaud 154-55). But fashion is the market of boredom. The perception of “contemporaneity” as a trend is beginning to reveal its exhaustion. I observe among younger generations of students a growing interest in so-called traditional media: their study may represent, for digital natives, a paradoxical novelty—a foothold in a world of events and momentary perceptions. A small anchor, a fixed point to grasp within an alienating contemporaneity, and perhaps a way to rediscover a principle of community, grounded in a shared—or at least comprehensible—language. To conclude with the words of Hans-Georg Gadamer: “The essence of the temporal experience of art lies in learning how to linger. This is perhaps the counterpart appropriate to us—that is, finite—of what is called eternity” (Gadamer 49).

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Does Form Follow Function?

The Evolution of User Experience from the Cassette Player to Spotify

1. Introduction

The maxim “form follows function,” famously attributed to the architect Louis Sullivan, became a cornerstone of twentieth-century modernist design. It posits that the shape of a building or object should be primarily based upon its intended function or purpose. This principle was further distilled by industrial designer Dieter Rams, whose work at Braun exemplified the ethos of “less, but better,” suggesting that good design is unobtrusive, honest and makes a product useful (Mohammed). However, the transition from analog music consumption—epitomized by the Sony Walkman—to the algorithmic landscape of Spotify challenges the rigidity of this functionalist perspective. As music consumption moved from physical media to digital platforms, the meaning of “function” changed. This paper argues that while the Walkman followed traditional functional design, modern streaming platforms like Spotify have shifted toward algorithm-driven experiences that prioritize user behavior over simple playback. This paper argues that while the Walkman followed traditional functional design, modern streaming platforms like Spotify have shifted toward algorithm-driven experiences that prioritize user behavior over simple playback. Form no longer follows the mechanical function of playback, but rather the data-driven function of behavioral prediction and mood management.

2. The Analog Era: Mechanical Function and Mobile Privatization

In the analog era, the user experience (UX) was inextricably linked to the physical constraints and mechanical operations of the medium. The introduction of the Sony Walkman in 1979 revolutionized the relationship between music and the environment, introducing the concept of “mobile privatization” (Du Gay). The Walkman’s form was dictated by the dimensions of the cassette tape and the necessity of portability. Its design was a direct response to a specific functional desire: to listen to music privately in public spaces. The user interface of

the Walkman—and subsequent cassette players—was tactile and linear.



Figure 1. The Sony TPS-L2 Walkman featured two headphone jacks and a “hot line” button.

The “function” was mechanical reproduction, and the “form” (buttons for Play, Stop and Rewind) followed the physical necessity of moving magnetic tape across a play head. This interaction created a specific type of engagement described as “intentional.” The user had to physically select a cassette, insert it, and wait for the tape to wind. The Walkman allowed users to impose their own “soundtrack” on the urban environment, effectively domesticating public space (Du Gay). The UX was defined by the user’s active control over a finite library of physical objects. Even the initial design choices, such as Sony co-founder Akio Morita’s inclusion of two headphone jacks to prevent “sonic selfishness,” were eventually overridden by the users’ functional desire for isolation, leading to the removal of the second jack in later models. Here, the form evolved strictly to follow the social function of solitary listening (*see Fig. 1*).

3. The Digital Transition: From Tactility to Archiving

The transition to digital music in the early 2000s, spearheaded by the Apple iPod, maintained a skeuomorphic link to the analog past while introducing a new functional imperative: the “culture of archiving.” The iPod’s design, heavily influenced by Dieter Rams’ T3 radio for

Braun, utilized a click-wheel interface that allowed users to navigate thousands of songs. While the storage medium became invisible (the hard drive), the UX still mimicked physical interaction through circular motion (see Fig. 2).

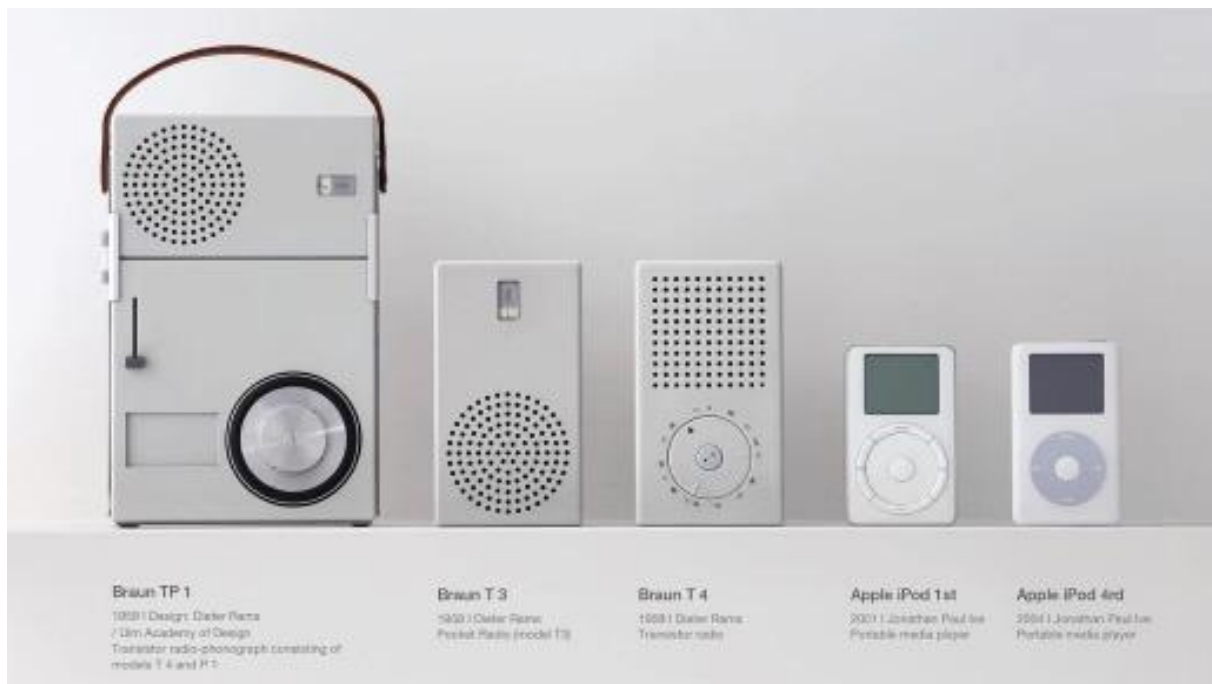


Figure 2. The various Braun radio models designed by Dieter Rams that influenced Jonathan Paul Ive’s design of the first iPod for Apple.

However, the “function” was shifting from playback to management. The user was no longer managing a single album, but rather a database. The ease of digital acquisition devalued the individual album, turning music into data that was “invisible to see and impossible to touch” (Sax). Despite this dematerialization, the early digital era still operated on a model of ownership and active selection. The interface form followed the function of a library: a list of artists, albums, and songs to be sorted and selected.

4. The Streaming Era: Form Follows Data

The advent of Spotify and subscription streaming marked a radical departure from the “form follows function” ethos of the hardware era. The primary function of Spotify is not merely to play music, but to resolve the “paradox of choice” presented by a catalog of over 40 million songs (Reddit). The user interface has evolved from a library-based design (searching

for specific tracks) to a recommendation-based design (passive discovery).

In the early years (2008-2012), Spotify's interface resembled iTunes, catering to a user who knew what they wanted to hear. However, a "curatorial turn" around 2013 shifted the platform's focus from distribution to the production of personalized experiences (Eriksson). The "function" of the platform became the algorithmic prediction of user desire. As a result, the interface shifted. It now prioritizes "Moods" and "Activities" over traditional categories like albums and artists. The interface now organizes content around behavioral concepts such as "Focus," "Sleep," or "Workout," effectively turning music into a functional tool for mood management rather than an aesthetic object.

This shift represents a fundamental change in UX. The user no longer operates a machine (Walkman) or manages a library (iPod/early Spotify); they now navigate a stream of algorithmic suggestions. As noted in Spotify Teardown, the interface is designed to hide the complex infrastructure of data aggregation and surveillance that powers these recommendations. The "form" of the interface (e.g., the "Discover Weekly" playlist) follows the "function" of data extraction and retention. The interface is optimized to keep the user engaged to generate more data, which in turn refines the algorithm.

Furthermore, the design often prioritizes the platform's business logic over user usability. Complaints regarding recent UI updates cite "visual noise" and the obfuscation of the artist's discography in favor of algorithmically promoted content (Reddit). This suggests that in the streaming era, form follows the corporate function of maximizing engagement metrics rather than the user's function of simple playback.

5. The Return of the Tangible: A Reaction to Algorithmic Abstraction

Interestingly, the saturation of algorithmic interfaces has triggered a counter-movement, particularly among Generation Z. Recent data from DataMag indicates that Gen Z is the driving force behind the resurgence of vinyl and cassettes, with 59% of 18-24-year-olds listening to physical formats. This return to analog is not merely nostalgic, but a search for "intentional listening" and a break from the digital algorithm (Vinyl Alliance).

For this demographic, the "function" of music has returned to identity expression and tangible connection—functions that the seamless, frictionless form of Spotify cannot fulfill.

The physical limitations of a cassette or vinyl record (the inability to skip tracks easily, the need to flip the side) have become desirable features rather than bugs (Marc). This suggests that when the form becomes too detached from the physical act of listening—as it has in streaming—users seek a return to interfaces where form and function are visibly mechanically linked.

The evolution from the cassette player to Spotify illustrates a profound transformation in the interpretation of “form follows function.” In the analog era, form was dictated by mechanical constraints and the physical necessity of the medium. The user experience was defined by tactile control and linear consumption. In the streaming era, the “function” has become abstract: the management of attention, the prediction of mood and the aggregation of data. As a result, interfaces are now fluid, personalized and often opaque. They guide users rather than merely serve them. While this has solved the problem of access, it has created a disconnect that has driven a new generation back to the tangible, proving that in the realm of user experience, the friction of the mechanical form remains a vital component of the function of listening. Ultimately, Spotify shows that in modern UX, function is no longer about use—but about influence.

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