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Media Archaeology Meets Digital Humanities: Global Trajectories, Methodological Frictions, and Contact Zones after the Computational Turn

This special issue starts with the observation that digital humanities (DH) has become more archaeological, while media archaeology has become more digital. DH has moved beyond earlier associations with text processing and quantitative analysis toward more reflexive debates about digital hermeneutics, feminist data critique, polyvocality, decolonising collections, uncertainty, and the politics of computation. Media archaeology, meanwhile, has shifted from its classical focus on obsolete media, alternative genealogies, apparatuses, and non-linear histories toward digital culture, software, networks, databases, archives, experimental labs, computational methods, infrastructures, and environmental media. In this issue, we explore this crossover between the fields by asking how media archaeology, as a heterogeneous field concerned with alternative and non-linear media trajectories, can use computational tools, methods, and infrastructures to rethink media histories in the digital age. Conversely, how can digital humanities scholarship draw on media-archaeological principles and forms of knowledge production?

‘Media Archaeology 2.0’ names this moment of convergence with deliberate awkwardness. It is an ironic wink toward a field famously averse to progress narratives, but also invokes the participatory, platformed, datafied paradigm associated with ‘Web 2.0’ – a term now almost as obsolete as ‘cyberspace.’ The phrase is useful if understood as a provocation. It points to a changed condition of media-historical work shaped by databases, digitised collections, metadata standards, visualisation environments, and new research possibilities unlocked by digital tools such as photogrammetry, 3D printing, large language models, or generative AI. The issue asks not whether media archaeology needs a version upgrade, but what becomes possible when its ongoing self-corrections are brought into an earnest conversation with the digital humanities.

This editorial approaches that question in two movements. We first revisit media archaeology as a field and method. Compared to earlier accounts of the history of the field,¹ ours also provides a brief history of the pedagogy of media archaeology as a university subject. It includes a selective overview of

international developments beyond the canonical German- and Anglophone centres, using Japan as the primary example. We then turn to digital humanities, its computational genealogy, and the points of convergence and tension where a conversation between DH and media archaeology might be imagined. We conclude by summarising the articles within this issue, all contributing to this conversation towards a ‘media archaeology 2.0.’

A Brief Chronology of Media Archaeology

In the last thirty to forty years, media archaeology emerged as a loose constellation of shared historiographic refusals: of purely hermeneutic textualism; of linear histories that narrate media as a sequence of inventions, family trees, and inevitable technological progress; of teleology and technological essentialism that claim media have fixed essences and are graspable as stable, self-evident categories; and of histories that treat archives and technical apparatuses as passive carriers of cultural meaning. Its foundational gesture challenged the temporal and epistemological habits of media and literary history. It aimed to uncover forgotten, alternative, failed, recursive, ‘subconscious,’ and imaginary paths of media technologies.

Media archaeology’s international success as a field, method, and way of understanding the mediated world is undeniable. It has been embraced by diverse linguistic communities worldwide² and diversified in both theoretical focus and methodology. It has expanded into theatre and performance,³ dashboards and data,⁴ archaeogaming,⁵ and artistic practice.⁶ It has also become a teachable, institutionally legible and nearly mainstream research orientation within media studies. That success has sharpened the field’s internal tensions. In the last decade, media archaeology has been critiqued for appearing as a Wunderkammer of gadgets: compelling, but at risk of sealing itself off from questions of embodiment, disability, gender, sexuality, race, labour, colonial violence, and environmental crises. In other words, it has seemed inert to real-world politics. These criticisms, discussed in more detail later, have become part of the field’s development. They have redirected it from media-technological devices toward bodies, practices, absences, formats, logistics, energy, waste, and planetary infrastructures.

In the following, we offer a brief chronology of media archaeology as a field, method, and pedagogy structured along four takes: (1) inscription, apparatus, and critique of the new; (2) digital culture, infrastructure, and internationalisation; (3) collections, laboratories, and experimentation;

(4) pluralisation, critique, and planetary reorientation. These four takes identify which of media archaeology's methodological instincts remain useful for DH. While each corresponds to a loosely bounded time period, they are not mutually exclusive and continue to resonate throughout the field's later development.

Take I: Inscription, Apparatus, and Critique of the New

Before media archaeology became a named field of research, we might date its proto-stage to the late 1980s and early 1990s. This period is characterised by an emphasis on inscription, the technological conditions of perception, discourse networks, and critiques of hermeneutic textualism and progress-oriented, medium-specific history. Early authors focused on treating media technologies as historical conditions that precede and shape subjectivity and perception. They displaced meaning and texts in favour of technical operations, even though they often drew on literary, philosophical, and psychoanalytic sources. Early cinema was a preferred site for this.⁷

Friedrich Kittler and Siegfried Zielinski's writings from this time show all these characteristics,⁸ but Bernhard Siegert's early work also deserves mention. Less diffused in English-speaking media studies but equally transformative, Siegert's *Relays* was an early rejection of humanist communication models that framed literature and subjectivity as a sub-epoch of the postal system, thus as effects of media infrastructures and of the material conditions of information transmission.⁹ In a related line of work, Lisa Gitelman's research, which adopts a transversal perspective not cemented to any particular medium, prefigured later collective interest in machine reading, legibility, formats, and nonhuman textuality.¹⁰ Jonathan Crary's histories of vision and attention are seminal studies of optical apparatuses, institutions, techniques, and embodied regimes of perception.¹¹ Vivian Sobchack's phenomenological critique of film theory's neglect of lived experience also foregrounded embodiment at a time when apparatus, language, and ideology dominated theoretical accounts.¹²

Some provocative anachronisms appear during this time, too. A book titled *Archaeology of Media* was published in Japan already in 1993, well before the term was adopted in academia.¹³ Noriaki Hashimoto ('a hacker,' as the publisher describes him) uses the term in a looser, chronicle-like sense. His history of the postwar electronic information society features canonical innovators and institutions already central to the mythology of digital media. Like its older and more famous cousin,

Archaeology of the Cinema by C. W. Ceram,¹⁴ the book's narrative is too linear to meet contemporary media-archaeological standards. Yet by tying together technologies, institutions, cultural fantasy, and expert networks, it suggests a proto-media-archaeological sensibility.

A historicization of media archaeology is also possible through university syllabuses and seminar catalogues. Possibly the earliest clear institutional trace of media archaeology as a university offering appears in Wolfgang Ernst's lecture 'Medienarchäologie des Wissens,' taught at the Bauhaus University Weimar in 1997-1998 and published as *M.edium Foucault*. Archived lecture pages at the Humboldt-Universität Berlin preserve a broader sequence of Ernst's courses with 'Medienarchäologie' in their title being offered in 2000.¹⁵ Around the same time, another key articulator of the field, Erkki Huhtamo, created several documentary series for Finnish national television, including *The Archaeology of the Moving Image* in 1996, accompanied by a book.¹⁶

The foundational works in this early phase, which was highly influenced by German scholarship, relied heavily on approaches that spanned history of apparatuses, discourse genealogy, technical media analysis, and the analysis of inscription systems. An interest in computing technologies, symbolic processing, and non-linguistic notational systems runs through most of this early work, but the contact zone¹⁷ between media archaeology and digital humanities is mostly anticipatory. However, the early objects already produce some of the conceptual vocabulary – storage, inscription, archive, signal – that will later ease contact with DH.

Naming and institutional consolidation

Within this first take, the early 2000s mark a shift toward institutional and terminological consolidation. Media archaeology gains prominence as a name, field, and historiographic (dis)orientation. A course chronology on Monoskop, a repository and Wiki for early media archaeology, shows that Gebhard Sengmüller's media archaeology lectures at the University of Art and Design Linz, Austria, have been running since 2005. This makes it one of the earliest art/design homes for the field outside Germany. The same year, also in Austria, Elisabeth Schimana founded the Institut für Medienarchäologie, an artist collective for women's acoustic art. The term begins to appear in symposium titles and book introductions. In retrospect, we can see how media archaeology is starting to clarify its relations to film and media history,¹⁸ media ecology,¹⁹ art history, and the history of science and cultural techniques²⁰ – a closely related, also predominantly German research area with which media archaeology frequently cross-pollinates.

Thomas Elsaesser proposed that the twentieth-century process of digitisation posed a challenge even to revisionist models of film historiography. He points to media archaeology as a more effective way to account for the multiple coexisting temporalities of multimedia culture.²¹ Around 2003, Ernst's *Medienarchäologischer Fundus*, a collection of media devices, became part of the Humboldt-Universität's research infrastructure.²² The current program pages still describe media archaeology as a central approach in the curriculum.

A dominant concern at this point is how to write media history without turning old media into mere precursors of the present.²³ Something like a zone of resonance between media archaeology and DH emerges when the newness of digital 'new media' becomes an object of historical critique. Many works from this period conceptually dissect problems of 'the digital' by rejecting novelty narratives, or narrative in general.²⁴ The important shift is that the adjectives 'digital' and 'new' no longer indicate a clean technological or historical epoch. Instead, digitality and novelty (and related terms such as 'database,' 'network,' 'archive') are relativised as moments in longer fluctuations of media stabilisation, obsolescence, and infrastructural embedding²⁵ – or even as articulations of epistemic conditions (orality, viscosity, scripturality) very distant from media culture proper, such as mathematics, accounting, or census and land surveying techniques.²⁶ Perhaps media archaeology's first gift to DH is anti-presentism: resistance to treating digital tools, digital archives, or computational methods as transparent, unprecedented, or self-evidently progressive.

Take II: Digital Culture, Infrastructure, and Internationalisation

From around 2010 onward, graduate seminars titled 'media archaeology' begin appearing across European and North American universities. One could speak of internationalisation through courses, studios, and collections as much as through publications. Among others, Thomas Elsaesser, Wanda Strauven, and Michael Wedel's classes and graduate programme *Imagined Futures* at the University of Amsterdam, Alexander R. Galloway's (and later Mara Mills') graduate seminar at NYU, Shannon Mattern's 'Urban Media Archaeology' at The New School, Lucie Česálková's courses at Masaryk University Brno, Claus Pias' 'Medienarchäologie' seminar at Leuphana University Lüneburg, and Lori Emerson's 'Media Archaeology and Media Poetics' at the University of Colorado at Boulder all point to the 2010s as a pedagogical boom. Documentation of this classroom history is patchy, but it is

crucial to understanding how media archaeology spread through pedagogy rather than only as a theoretical inclination.

In 2012, we begin seeing more attempts to define what media archaeology *is* and map its internal differentiations.²⁷ The trope of the ‘undisciplined discipline’ is established.²⁸ This is also the first clear moment when *digital* culture becomes a direct object of media-archaeological scrutiny, breaking the nineteenth and early twentieth centuries as the main temporal threshold. Media archaeology no longer orbits around ‘new’ media from the outside. Instead, it turns to digital media’s own operational regimes: sound,²⁹ software,³⁰ algorithms and viruses,³¹ compression and bits,³² wireless networks, databases and interfaces,³³ protocols and standards,³⁴ glitches, noise, malfunctions,³⁵ and the microtemporality of computation. The digital is understood as material, pathological, and noisy. Ernst’s work on machinic time and digital archives gives this problem its sharpest non-hermeneutic formulation.³⁶ A counterpoint to Ernst’s ‘hard’ strand of media archaeology appears in the interest in touch and tactility – as illustrated by several key works by Wanda Strauven.³⁷

Equally noteworthy is the growing publishing activity outside German- and English-speaking regions. Alongside a large Spanish-language volume situating media archaeology within Mexico’s artistic and technological histories,³⁸ Japan became one of the most densely developed and internally diverse national contexts for media archaeology. The Japanese case is revealing because it shows several modes of internationalisation and localisation: translation of European theory, local theory-building, collection formation, digital archiving initiatives, and environmental or infrastructural expansion. Case studies and voices such as Machiko Kusahara’s were present in international debates from early on,³⁹ while Japanese translations by Yoshitaka Ota, Takuya Umeda, and others secured wide reception of European media theory, including an especially active engagement with Friedrich Kittler.⁴⁰

Yet it would be misguided to frame Japan as a receptacle for exports of European theory. Japanese-language media archaeology has developed its own interests and interdisciplinary ties, shaped by local debates about technology, modernity, postmedia culture, and the traditional proximity of Japanese media historiography to sociology.⁴¹ Prominent works include studies of television advertising,⁴² Hiroyuki Akagami’s archaeology of Japanese post-print media and the imagination of film as a successor to print,⁴³ and Ryo Okubo’s archaeology of pervasive screens, unfolded through nineteenth-century visual-performative practices such as magic lanterns, *rensageki*, and Kineorama.⁴⁴

The main lesson of this period for the later media archaeology-DH relation is that digital media became historically layered, materially embedded, and operationally specific. We will revisit the implications of this digital operability in our discussion of archives, data cleaning, and computational evidence.

Take III: Collections, Laboratories, and Experimentation

The nascent digital criticism culminates in media archaeology's 'lab moment' around 2014. We elaborate on this term later, but it suffices to say this new programmatic call, no longer satisfied with just a theoretical challenge to established historiography, asserts a hands-on experimental method pursued through laboratory practice, collection logics, and especially a pedagogy of praxis.⁴⁵ The lab and collection infrastructures exemplified by Ernst's *Fundus* and Lori Emerson's Media Archaeology Lab at the University of Colorado in the United States (2009) served as important capstones to this experimental rush.⁴⁶ In their 2014 essay "Experimental Media Archaeology: A Plea for New Directions," Andreas Fickers and Annie van den Oever emphasise the value of hands-on experimentation and performative re-enactments with historical media devices. They argue that these methods resensitize media historians to the material and sensory qualities of objects, offering new perspectives for understanding past media practices.⁴⁷

The reorientation towards practice still dominates media archaeology today and, in more recent work, emphasises sensory experience, replication, and collaboration.⁴⁸ It also aligns with decolonial theoretical frameworks, as shown in Andrés Burbano's case studies of forgotten Latin American technologies supplemented by hands-on reconstructions.⁴⁹ In this issue, Devadder, Kicsiny, Van Mulders, Devleminck, and Vande Winkel extend this experimental principle through digital replicas and 3D printing, showing how reconstruction can serve creative historical inquiry.

The founding of the Kyoto Toy Film Museum in 2015 supports the notion of a 'lab turn' internationally. The Toy Film Museum is among several noteworthy media-archaeological collections in Japan that demonstrate the field's practical and institutional dimensions. These include the almost century-old Waseda University Tsubouchi Memorial Theatre Museum (known endearingly as Enpaku) and Machiko Kusahara's private collection of media devices, a key reference point in Japanese media-archaeological work. By 2015, there was talk of 'Kittler studies',⁵⁰ marking a milestone in the

transfiguration of an author into a research field. Some commentators begin cautioning against using ‘media archaeology’ as a vague rebranding of established historiographical practice.⁵¹ This shows the term had become *en vogue*.

During this vibrant period, spatial questions inherited from New Film History’s interest in spectatorship, projection practice, and exhibition space⁵² begin to intersect with digital methods such as mapping, GIS, and databases for moving-image history.⁵³ This spatial and database-oriented strand returns below as a concrete practical meeting point between media archaeology and DH. Symptomatic of the interdisciplinary flows leading to the present moment, seminal works on media, environment, infrastructure, and logistics also date to this period. Terms like ‘geology’ and ‘elemental media’ are introduced.⁵⁴

Take IV: Pluralisation, Critique, and Planetary Reorientation

By the late 2010s and early 2020s, media archaeology had become a globally distributed but mostly course- or module-based formation at universities. An unsystematic review of university course catalogues shows that media archaeology is currently or was recently offered at institutions in Germany, Austria, Czechia, the United States, Canada, Italy, Portugal, Switzerland, Spain, Japan, and Hong Kong. Newer syllabuses tend to add ecology, decolonisation, provenance, labour, platform economies, AI and Indigenous media practices. During this period, media archaeology’s historiographic instincts and newfound affinity for labs and experimentation persist,⁵⁵ including in artist-run spaces and analogue film labs.⁵⁶ Computational methods enter film and media scholarship more assertively.⁵⁷ In contrast to the proliferating but relatively technical toolkits and automated film analysis tools,⁵⁸ one can also discern works seeking data-driven yet anti-positivist and poetic tools for analysis.⁵⁹ Format studies emerges as a companion discipline.⁶⁰ Using the example of film subtitling in Switzerland, Diecke, Baresch, Caseres, and Künzli’s contribution to this issue exemplifies how all these disciplinary shifts converge in the present.

But the field has also faced criticism on several fronts. Feminist and queer media archaeology increasingly contest the masculinist, hardware-centred ‘boys’ club’ canon and an anti-humanism that erases bodies, labour, care, disability, and situated knowledge.⁶¹ The recently accelerating research agenda on touch,⁶² domestic media practices,⁶³ the politics of childhood and play,⁶⁴ queer and

non-normative temporalities and materialities,⁶⁵ and fashion and gendered media techniques like weaving⁶⁶ can likely be interpreted as a response to these critiques – but with the added caveat that many of these themes have long been staples in earlier research on embodiment, non-theatrical cinema, and mediatic materials by scholars such as Alexandra Schneider, Wanda Strauven, and Laura U. Marks.⁶⁷

When, in 2020, Erkki Huhtamo and Doron Galili acknowledged that media archaeology must urgently engage non-Western media pasts,⁶⁸ Marks' *Enfoldment and Infinity* had already anticipated this lacuna by a decade. Marks' book draws on Foucault's archaeology and genealogy to tease out nonlinear coordinate systems of new media art (algorithmicity, abstraction, immersion) from Islamic art and thought,⁶⁹ and is therefore an early example of the decolonial impulses that would later challenge Euro-American assumptions in media archaeology. Brian Larkin's contributions to the study of media infrastructures in Nigeria, which focus on materiality and occasionally draw on Foucault, should also be considered pioneering in this regard.⁷⁰

A planetary and infrastructural media archaeology

The urgency of global environmental collapse also shapes the discipline's conceptual trajectory. In the late 2010s, many of media archaeology's previous research priorities were enhanced with an environmental and planetary lens. Shannon Mattern's *Code and Clay, Data and Dirt* is a good example. Mattern adopts media archaeology as a primary method guiding her longue-durée materialist history of urban media. She rejects narratives that frame 'smart' or data-driven cities as historically unprecedented and argues that cities have always been media systems.⁷¹ Extraction, energy, waste, and logistics are the core glossary expansions leading to the present. During the 2020s, this pluralisation of research has intensified into a more explicitly planetary and infrastructural reorientation.

In 2023, Jussi Parikka held a lecture entitled "What Is Media Archaeology? 10 Years Later." Our insistence on asking the same question in this themed issue is either a symptom of an adolescent field's identity crisis or of its mature introspection. Still refusing to define it, Parikka triangulates media archaeology as a provisional, travelling, and fragmentary critical diagnostic practice whose mobility also demands critical attention to decolonial perspectives, border regimes, and the geopolitics of knowledge production.⁷² Parikka calls for the provincialization of Euro-American media theory and urges media archaeology to confront its own positionality within histories of colonialism, modernity, and the climate crisis.

In this, he echoes earlier calls by scholars such as Rakesh Sengupta, Raka Shome, and others to correct media archaeology's 'geopolitically insular and race agnostic' bent.⁷³ As media archaeology expands into new regions, the infrastructure becomes uneven, noisier, improvised, and more political. It is patchy and asymmetrical rather than 'global.' Archives come to be understood as structured by absence and colonial knowledge systems. Standards and formats become geopolitical objects,⁷⁴ and media history becomes inseparable from empire.

Internationally, recent publications that explicitly frame themselves as media-archaeological range from national inflections on familiar subjects, such as the cultural specificities of Japanese video, magic lantern, non-theatrical, and small-gauge film projection,⁷⁵ to topics rarely treated in English, such as model-making.⁷⁶ Yuriko Furuhata's work on *Climatic Media* and transpacific studies of colonial empires combines a broadly media-archaeological understanding of technology with a planetary interest in weather, empire, and infrastructure.⁷⁷ In a parallel conversation influenced by the 'blue humanities,' recent entries also include 'archaeologies of the sea.'⁷⁸

In a colloquium shortly before his retirement in 2024, Wolfgang Ernst asked whether it was 'time to go?'⁷⁹ In 2026, media archaeology has most certainly not run out of steam, but it must take a stance on new planetary infrastructures and geopolitical events. It must engage with companion disciplines such as science and technology studies, infrastructure studies, code, platform and software studies, decolonial and Indigenous critique, and approaches within the larger umbrella of environmental humanities that have entered media scholarship.⁸⁰ In this sense, media archaeology may have served as one of the coupling devices enabling these interdisciplinary encounters in media studies. Many current concerns – including infrastructure and non-human agency – had already presciently figured in the work of Harold Innis, whose 'dirt research' fieldwork can be considered media archaeology *avant la lettre*, according to Liam Cole Young.⁸¹ Media archaeology partly reactivated and redirected some of these problems under different theoretical conditions. Concepts from environmental scholarship, such as materiality, entanglement, and temporality, enter the media-theoretical vocabulary smoothly, partly because media archaeology had already trained the field to think beyond linear causality, stable media objects, and human-centred conceptions of time. Media archaeology's initially a-human outlook – its effort to understand media on their own terms, beyond their sensory utility or meaning to humans – also resonates with the value many environmental scholars place on non-human agencies and the afterlives of materials.

Toward the Digital Humanities: Method as a Moving Target

The literature compiled for this historical review contains a substantial layer of meta-reflection. Many authors test the field's elasticity by proposing adjacent terms and quasi-methods: variantology, anarchaeology, archaeography, genealogy, cultural techniques, geology, media epigraphy, media diagrammatics, etc. As in any healthy scientific area, this process often proceeds dialectically through interventions that apply corrective pressure on some limitations of prior approaches. These are moments in an ongoing conversation about method, most often conducted through critique, borrowing, refusal, and recombination.

As an exemplary trajectory, Friedrich Kittler's influential work targeted interpretive traditions that focus on meaning, intention, and representation yet neglect technical media conditions.⁸² Wolfgang Ernst's criticisms of narrative and cultural history can be seen as an intensification and crest of Kittler's project, which Ernst radicalised into an operative account of archives, machines, signals, and time – an 'archaeography.'⁸³ Parikka takes this insistence on technical operations seriously, but then redirects media materiality toward geology, energy, extraction, waste, and the planetary environmental conditions of digital culture.⁸⁴ The sequence is not a clean succession of schools, but a chain of methodological adjustments.

A second trajectory concerns anti-teleology, recurrence, and empirical method. Zielinski's 'variantology' and 'anarchaeology' sharpen media archaeology's rejection of linear progress narratives by foregrounding failed, eccentric, discontinuous, and unrealised media possibilities.⁸⁵ Michael Goddard draws on this anarchaeological impulse, but criticises Zielinski's 'deep time' approach for risking romanticising inventor-geniuses and replacing teleological histories with a new canon of great men – an 'occult tradition' – detached from socio-technical assemblages.⁸⁶ Wary of speculative philosophical projection, Erkki Huhtamo's insistence on 'genealogy' offers another correction. He remains suspicious of progress narratives and more invested in recurring cultural *topoi*, empirical historical research, and the changing circumstances under which media motifs return.⁸⁷ María Vélez-Serna's *Ephemeral Cinema Spaces* gives this tendency an explicitly methodological and digital form. Describing her approach as both media-archaeological and genealogical (though not explicitly indebted to Huhtamo), she traces non-theatrical film exhibition across unstable, informal, and non-institutional settings. Grounded in empirical and ethnographic research combined with

quantitative mapping and databases, the book is an excellent example of multiple converging developments within media archaeology.⁸⁸

These trajectories prepare the transition to the digital humanities. Digital methods can expand possibilities for media-archaeological research across language, geography, and large data corpora, potentially opening new possibilities for experimentation. However, they can also stabilise the categories media archaeology has worked to unsettle. Timelines, ontologies, search interfaces, metadata schemas, maps, and visualisations may reproduce linearity, medium specificity, archival survival bias, institutional collecting histories, or colonial absence.⁸⁹ Here, the encounter with DH becomes a new methodological pressure point. It invites us to ask how collections become datasets, how media objects are reconstructed through tools and archives, how code and interfaces mediate evidence, how variants and annotations reshape interpretation, and how formats preserve or erase traces.

Digital Humanities and the Computational Turn

Having traced media archaeology's methodological self-corrections, we now turn to parallel shifts in DH scholarship that make the crossover between the two fields a productive avenue for exploration. Over the past three decades, digital humanities has evolved from a specialised domain into a widely institutionalised and methodologically diverse field. Like media archaeology, it consolidated in the 1990s and 2000s through the establishment of dedicated research centres, academic journals, and conferences.⁹⁰ However, media archaeology and DH have distinct intellectual genealogies. Media archaeology emerged with the 'material turn,'⁹¹ while DH developed from the 'computational turn' in the humanities.⁹² Generally, for media archaeologists, the machine is the *object* of study; for digital humanities scholars, it is the *method*. The preceding media-archaeological history shows how this division is complicated in practice. The digital can be understood both as an episteme (where cultural memory and scholarship are contingent on computation, platforms, standards, and data structures) and as infrastructure (for searching, modelling, annotating, visualising, reconstructing, simulating, and analysing media histories).

Developing from 'humanities computing,' with roots stretching from the late 1940s through the early 1970s,⁹³ early DH scholarship adopted a broadly positivist approach, focusing on knowledge production through scale, quantification, and pattern recognition.⁹⁴ The so-called *first wave* of DH, occurring in the 1990s and 2000s, focused mainly on large-scale digitisation projects and building

technological infrastructures to support computational, mostly text-based analyses within established humanities disciplines such as literary studies and history.⁹⁵ Digital humanities scholar Todd Presner argued that this first wave was followed by a *second wave* of DH emerging in the late 2000s and early 2010s.⁹⁶ Also called ‘Digital Humanities 2.0,’ this second phase introduced ‘new disciplinary paradigms, convergent fields, hybrid methodologies, and even new publication models (...).’⁹⁷ Unlike the earlier emphasis on large-scale digitisation, the second wave foregrounded born-digital scholarship and participatory knowledge production.⁹⁸

More recently, scholars such as David M. Berry and Andreas Fickers have proposed a *third wave* of DH,⁹⁹ characterised by critical and reflexive engagement with digital technologies, infrastructures, and their ‘underlying computability’¹⁰⁰ – or what Fickers calls ‘digital hermeneutics.’¹⁰¹ This ‘reflexive turn’¹⁰² or shift toward self-reflexive and critical DH scholarship, also advanced by scholars like Alan Liu and James E. Dobson,¹⁰³ has opened new points of convergence with media archaeology – despite the latter’s anti-hermeneutic origins. Around 2012, two edited volumes made this rapprochement especially visible. Huhtamo and Parikka’s seminal *Media Archaeology* included a chapter in which Noah Wardrip-Fruin explicitly names ‘digital media archaeology’ as a bridge between humanities interpretation and code-level understanding¹⁰⁴ – a disciplinary tête-à-tête that still remains analytically fruitful, as Adrian Demleitner’s article in this issue also shows. Conversely, Berry’s *Understanding Digital Humanities*¹⁰⁵ framed the field through the computational turn and, as just mentioned, called for a critical hermeneutics of code but, crucially, also included contributions by media archaeologists such as Parikka.¹⁰⁶ Good evidence of the beginnings of a methodological convergence manifested in editorial work.

Contact Zones: Alternative Histories and Methodological Playfulness

Before elaborating on these zones of contact – including those explored in this special issue – it is important to recognise that significant connections between media archaeology and digital humanities have existed from the outset. Both fields share an interest in exploring alternative approaches to history and knowledge production. As outlined, media archaeologists such as Zielinski and Huhtamo have rejected narratives of technological progress and emphasised the non-linear and cyclical nature of media technologies to critique what Parikka described as the ‘hegemony of the new.’¹⁰⁷ These approaches have opened alternative ways of conceptualising temporality: from Zielinski’s notion of the

‘deep time’ of media,¹⁰⁸ which challenges the dominant view that history follows a linear trajectory of progress, to Huhtamo’s understanding of history as a ‘multi-layered construct.’¹⁰⁹

Comparable concerns also appear in DH scholarship, where computational methods are increasingly used to explore alternative histories and temporalities and to construct multi-layered narratives, for example through interactive maps, data visualisations, and other digital interfaces.¹¹⁰ The spatialized moving-image histories noted above – especially work with mapping, GIS, and databases – are one concrete place where this concern with layered historical narration meets media-historical method. However, as Jasmijn Van Gorp et al. argue, ‘[t]he parallel between digital humanities and media archaeology not only lies in (potentially) bringing to the fore alternative histories, but also in fundamentally raising new methodological questions.’¹¹¹ Both fields challenge established disciplinary frameworks and promote in(ter)disciplinary modes of inquiry. The integration of tools and methods from computer and information sciences into humanities and social science research has led scholars like Julie Thompson Klein to identify DH as an ‘interdiscipline.’¹¹² Media archaeology, on the other hand, is frequently described as a ‘traveling discipline’¹¹³ or what Michael Goddard terms an ‘indiscipline’: a ‘set of loosely related methods and principles, without any one single or stable essence.’¹¹⁴ While both fields move beyond conventional disciplinary structures, they do so in different ways. DH often expands the humanities by integrating computational methodologies and infrastructures, media archaeology frequently seeks to unsettle the epistemological assumptions underlying disciplinary knowledge itself. Drawing on Michel Foucault’s archaeology of knowledge,¹¹⁵ media archaeologists embrace heterogeneous forms of inquiry, including experimental and artistic approaches.¹¹⁶

The lab as a contact zone

The lab-oriented media archaeology we mentioned above also resonates with practice-based knowledge production in DH. In *Digital_Humanities*, Anne Burdick et al. argue that DH ‘implies a reinterpretation of the humanities as a generative enterprise’: one in which students and researchers not only produce texts, but also create visuals, software, and platforms.¹¹⁷ Such practice-based pedagogies in DH complement rather than replace critical and hermeneutic modes of inquiry¹¹⁸ and align closely with media archaeology as artistic methodology and creative practice. Here, knowledge is produced through handling apparatuses, tactile experimentation, reconstruction, reenactment, ‘thinkering,’ and circuit-bending as material encounters with media technology.¹¹⁹

The growing recognition of practice-based research in both fields, therefore, extends the ‘laboratory turn’ in the humanities. According to Urszula Pawlicka-Deger, this turn sees the lab not just as a physical place but as ‘a way of thinking entailing new social practices and new research modes,’ including ‘collaboration, experimentation, and hands-on practices.’¹²⁰ In *The Lab Book*, Darren Wershler, Lori Emerson, and Jussi Parikka examine various laboratories across the arts and humanities, including the aforementioned *Fundus* and Media Archaeology Lab. Such laboratories have increasingly become ‘hybrid labs’ or ‘assemblages’ that function both as research infrastructures and as collections of archival objects, facilitating hands-on engagement with historical media technologies. In these environments, they argue, ‘[t]he apparatus becomes not just the item, device, or object that provides an occasion for study, but also the substance of the lab itself.’¹²¹

In the Japanese collection context, the Waseda University-led digital archive of Machiko Kusahara’s magic lanterns, early projection devices, and related paraphernalia offers a useful example of a contact zone. The platform emphasises digitisation, metadata creation, open licensing, and public access. It also raises questions about what digital surrogates can convey about material devices, projection practices, and historical use.¹²² Anger and Hanáková’s article in this issue develops a related practice-based reflexivity through videographic scholarship as experimentation, asking how digital tools, interfaces, and applications themselves become historically legible objects of media-archaeological inquiry.

The archive as a contact zone

Finally, these developments point to the archive as the ultimate link between media archaeology and DH. Besides the laboratory, Jussi Parikka identifies the archive as a central site for media-archaeological inquiry, especially as it shifts from a key institutional ‘site’ of memory – historically intertwined with modernity and the emergence of the state apparatus – to a ‘dynamic and temporal network, a software environment, and a social platform for memory – but also for remixing.’¹²³ Media archaeology’s engagement with archives and archival practices has brought the field into closer dialogue with non-academic institutions concerned with digital cultural heritage, a development that, as Parikka acknowledges, ‘has affinities with the recent interest in digital humanities.’¹²⁴

At the same time, media archaeology and DH differ in important ways in their approaches to the archive. Media archaeologists such as Wolfgang Ernst draw on Foucault’s notion of the archive not as a physical repository, but as a ‘set of rules governing the range of what can be verbally, audiovisually, or alphanumerically expressed at all.’¹²⁵ Emphasising both the materiality of archival media and the ‘agency of the machine,’¹²⁶ Ernst ‘extends the idea of an archive into

actual machines and circuits'¹²⁷ to account for the ontological shift from the *classical archive*, aimed at preserving time, to the *digital archive*, in which archival objects become increasingly mathematised.¹²⁸ This returns us to the media-archaeological critique of digital operationality mentioned previously: files, tools, archives, formats, interfaces, and infrastructures do not simply process pre-existing cultural objects, but mediate the evidence they appear to make available.

DH scholars, by contrast, often have a more pragmatic relationship to the archive through digitisation processes and the use of digital infrastructures and computational tools for searching, analysing, and visualising archival collections.¹²⁹ To facilitate digital research, Johanna Drucker explains in *The Digital Humanities Coursebook* that archival data need to be standardised, structured, and 'cleaned.'¹³⁰ While these processes are necessary for computational analysis, Katie Rawson and Trevor Muñoz argue they risk reducing historical complexity and cultural diversity:

The term "cleaning" implies that a dataset begins as "messy." "Messy" suggests an underlying order: it supposes things already have a rightful place, but they are not in it – like socks on the bedroom floor rather than in the bureau or the hamper.¹³¹

Consequently, DH practices can seem fundamentally at odds with media-archaeological approaches that foreground the medium's *noise* (for example, the noise of an ancient wax cylinder as a recording device) over its *signal* (the recorded voice) to construct, in Ernst's words, a 'different kind of "archive".'¹³²

These tensions also concern labour: digitisation, correction, metadata creation, annotation, interface design, dataset cleaning, editorial maintenance, and care for fragile archives are often rendered invisible by the apparent smoothness of digital access.¹³³ Fridzema and Geldermans' article addresses this problem through the XS4ALL homepage collection, showing how web archives are reconstructed objects shaped by tools, curatorial decisions, and technical infrastructures rather than transparent windows onto vernacular web culture. The notion of the archive highlights these epistemological differences between media archaeology and DH. At the same time, it shows the archive's potential as a productive 'meeting place' to facilitate the crossover between digital-humanities and media-archaeological approaches, which we aim to explore further in this special issue.¹³⁴

Towards a media archaeology 2.0

Media archaeology anno 2026 is no longer adequately described as the excavation of obsolete media or forgotten devices. The field has moved from inscription systems and apparatuses to anti-teleological accounts of ‘new’ media and networks,¹³⁵ software, and digital archives – and toward laboratories and hands-on methods, and planetary, decolonial, feminist, queer, infrastructural, and environmental concerns. Meanwhile, digital humanities has become more reflexive about its own tools, archives, data models, interfaces, and infrastructures. ‘Media Archaeology 2.0’ describes this encounter as a dynamic and evolving dialogue marked by many points of contact and productive tension.

Early examples bridging computational and media-archaeological perspectives include Lev Manovich’s analysis of the ‘cultural interface’¹³⁶ and Matthew Kirschenbaum’s work on the materiality of digital media.¹³⁷ More recent scholarship expands this crossover¹³⁸ by exploring how emerging technologies – including LLMs,¹³⁹ machine learning,¹⁴⁰ computer vision,¹⁴¹ 3D modelling and printing,¹⁴² and AR/VR/XR environments¹⁴³ – can be used for media-archaeological and historical inquiry, while also giving rise to new forms of digital storytelling.¹⁴⁴ The growing integration of these technologies into media-historical research, the rise of media archaeology labs and archives worldwide, and the increasing emphasis on multimodality and materiality within DH scholarship¹⁴⁵ have accelerated the interconnections between the two fields.

This contact raises new questions. How can computational tools, methodologies, and infrastructures open possibilities for constructing and deconstructing data-driven media-historical narratives?¹⁴⁶ How might they enable new sensory modes of historical inquiry or simulate the materiality, functionality, and histories of use of media artefacts? Could DH benefit from a media-archaeological commitment to play, hacking, tinkering, failure, obsolescence, recurrence, and the anomalous?¹⁴⁷ How might sources become computable, collections become datasets, interfaces shape interpretation, formats preserve or erase traces, and infrastructures condition access? DH provides media archaeology with scale, modelling, visualisation, annotation, computational analysis, and collaborative infrastructures. Media archaeology offers DH anti-teleology, source and format criticism for digital objects, tool and workflow criticism, archive-as-lab thinking, and attention to absences, labour, and environmental costs. The

contributions to this special issue develop this dialogue through case studies in experimental reconstruction, videographic practice, subtitling variants, source-code analysis, and web archives, showing how the intersection between media archaeology and DH generates new questions and forms of digital media-archaeological inquiry.

Article Summaries

In **“Reanimating the Anortho-Phenakistiscope: Experimental Media Archaeology as a Framework for Artistic Research,”** Guido Devadder, Martha Kicsiny, Ziebe Van Mulders, Steven Devleminck, and Roel Vande Winkel reflect on reanimating Joseph Plateau’s anortho-phenakistiscope from circa 1844–1849. Using an experimental media-archaeological approach to bridge the gap between description and experience, they employed digital tools, including 3D printing, to create a replica of Plateau’s nineteenth-century optical device. This allowed them to investigate the apparatus through material analysis and by testing parameters, such as speed ratios, shutter geometry, and varying lighting conditions. Their hands-on experiments deepened their historical understanding of the anortho-phenakistiscope and led to speculative reinterpretations, including transforming the original two-dimensional phenakistiscope images into three-dimensional lithophanes. The article highlights the heuristic value of digital replication and 3D printing in media-archaeological research. It demonstrates how historical inquiry, hands-on experimentation, artistic creation, and material reconfiguration can inform one another in an iterative process the authors call ‘circuitous epistemology.’

In their article **“Videographic Scholarship from Below: A Practice-Based Media Archaeology of (and through) Digital Tools,”** Jiří Anger and Veronika Hanáková expand on experimental media archaeology as a hands-on approach to media historiography to examine the intersection between videographic scholarship and digital humanities. Drawing on their own videographic essays and their students’ projects, alongside works by video essayists such as Johannes Binotto and Occitane Lacurie, they advocate for a videographic scholarship from below that foregrounds the ‘historicity of the digital tools, interfaces, applications, and artefacts through which analysis is conducted.’ They call for a self-reflexive and media-reflexive approach to computational tools, suggesting this can deepen the historical grounding of videographic scholarship and increase media archaeology’s sensitivity to the material and tactile aspects of digital phenomena.

“Time-coded, Hardcoded, Decoded: Excavating Variants and Practices in Swiss Film Subtitling” proposes an interdisciplinary framework for analysing film subtitling. In Josephine Diecke, Ariadne Baresch, Sevita Caseres, and Alexander Künzli’s conceptualisation, subtitling becomes analytically available as a historically situated, variant-based audiovisual practice that generates layered artefacts. Combining archival research, close viewing through manual video annotation, and distant viewing via semi-automated computational analysis, the authors develop a methodology that systematically compares subtitle variants across film versions, treating them not as stable textual supplements but as products of institutional, technological, and cultural conditions. Drawing on a corpus of Swiss films (1920–2020) and a detailed case study of the multiple subtitle variants for Richard Dindo’s and Niklaus Meienberg’s documentary *Die Erschiessung des Landesverräters Ernst S.* (1976), the article demonstrates how subtitles (hardcoded in film prints, digital) reveal divergent translation strategies, production workflows, and distribution contexts, even within the same target language. By integrating metadata analysis, OCR-based reconstruction, and annotation tools such as VIAN, the authors show how computational methods can augment historically grounded inquiry. This variant-oriented, media-archaeological approach repositions subtitling as a key site for understanding audiovisual mediation, cultural negotiation, and the historiography of moving images.

In **“Finding the ‘Magic’ in Programming Games: A Critical Digital Humanities Approach to Studying Video Game Code,”** Adrian Demleitner examines how video game source code mediates between programmer intentions and player experience. Addressing a persistent gap between technical and humanities approaches, he proposes a methodological framework that combines critical code studies with semiotic analysis of ludemes, fundamental gameplay units. Demleitner performs a close comparative reading of two editions of *Poizone*, a 1991 game for the Acorn Archimedes by Paolo Baerlocher and its 2023 Python port. He traces how identical player experiences emerge from radically different programming philosophies, ranging from low-level assembly code to modern high-level programming, which relies on abstraction frameworks like *pygame*. This approach integrates play analysis, distant reading, and close reading of code to reconstruct the programmer’s ‘theory-building’ as inscribed in software structures. The analysis demonstrates that source code can be read as a palimpsest of cultural assumptions, design intentions, and historically situated programming practices. By foregrounding code as both a material substrate and a cultural document, the article highlights the interpretive value of source code for media archaeology and game studies,

while simultaneously arguing for a more structurally attentive digital humanities methodology that can bridge phenomenological gameplay and computational processes.

Nathalie Fridzema and Iris Geldermans' **"Excavating the Archived Web: Writing a Vernacular Web History following Media Archaeological Principles,"** reflects on how media archaeology can guide the study of early web archives through the case of the XS4ALL homepage collection at the KB National Library of the Netherlands. Focusing on personal homepages created by everyday users in the 1990s and early 2000s, the authors warn that archived websites should not be treated as transparent windows onto the past, but as reconstructed objects shaped by curatorial choices, technical infrastructures, and archival procedures. The XS4ALL collection serves as a methodological test case. Fridzema and Geldermans show that working with web archives involves dealing with selective preservation and the limits of the tools used to explore them. In the XS4ALL case, this meant manually building subsets from thousands of archived URLs and discovering that tools such as SolrWayback could distort the material in complex ways. The article argues for a cultural history of the web that highlights ordinary user practices – together with their recurring genres such as guestbooks and photo albums – and enduring imaginaries of the homepage as a personal digital space. In this way, it presents media archaeology as a practical framework for writing web history through partial, layered, and mediated sources.

With this selection of recent research for the present special issue we hope to contribute to both contemporary and ongoing discussions in the fields of media archaeology and digital humanities, and to stimulate a dialogue on the question of how both fields can mutually enrich each other. We envisage that this dialogue, along with the various methodological frictions and contact points that it brings, will offer new horizons for both media archaeologists/historians and digital humanities scholars alike.

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