

# Thinkering in 3D: Towards a Digital Experimental Media Archaeology

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## Abstract

This presentation explores a digital experimental media archaeology. Drawing on the framework of “experimental media archaeology” as a hands-on approach to media historical research and teaching, it asks how the practices of making 3D models and 3D scholarly editions of media historical objects can facilitate learning processes about past media technologies and their histories of use. Experimental media archaeology, a methodological framework developed by media historian Andreas Fickers and film scholar Annie van den Oever (2022), promotes an object-oriented and sensorial approach to media historiography (cf. Hall and Ellis, 2019). One of its greatest heuristic potentials lies in education: learning through hands-on interaction with material objects and their so-called “object lessons” (Ellis and Williamson, 2020). By looking at, touching, listening to, smelling, and feeling material objects, and by testing their operations and functions, students learn differently about, for example, an early 35mm film projector compared to only reading the handbooks and instruction manual of the device (van der Heijden and Kolkowski, 2023). Such sensorial encounters and object lessons are not necessarily limited to original objects; their educational effects can also be retrieved through (3D) replicas or simulations (van der Heijden and Wolf, 2022; Georgiakakis and van der Heijden, 2024). As Fickers and Van den Oever state: “In creating a space for creative exploration and tinkering with either original artefacts or replicas, the researcher will get a first-hand experience of the heuristic difference between studying textual and visual representations of past media technologies and their performative qualities and limitations in real-life interaction and re-use” (Fickers and van den Oever, 2022, p.23).

What, then, is the potential of experimental media archaeology for digital storytelling as a form of knowledge production and dissemination? How can 3D digitisation and modelling be used to enhance media historical education by simulating past media technologies and their uses? A central hypothesis explored in this project is that investigating the heuristic and pedagogical possibilities

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of developing digital narratives about media heritage objects and collections allows us to open up historical media devices as “black boxes” and so contributes to making these devices accessible as epistemic objects within research and educational practices (Fickers and van den Oever, 2022, p.27; cf. Harkema and Rosendaal, 2020). Empirically, the presentation reflects on a research fellowship conducted at The Plant – The Playground and Laboratory for New Technologies – in the Faculty of Arts and Social Sciences (FASoS) at Maastricht University in 2026 (<https://theplant.maastrichtuniversity.nl/>). As part of the course Creating Digital Collections of the Master’s Media Studies: Digital Cultures at FASoS, students have been 3D-digitising various analogue film cameras, projectors and accessories, including a Ciné-Kodak 16mm film camera, Pathéscope H 9.5mm film camera, Bell & Howell Filmo 57 16mm film projector, Paillard-Bolex L8 double 8mm film camera, Agfa Microflex 200 Super 8 camera, and a Goko Dual-8 editor viewer, with the aim of turning the resulting 3D models into multimodal narratives – or “3D scholarly editions” (Papadopoulos and Schreibman, 2019) – for publication on the PURE3D platform hosted by Maastricht University (<https://pure3d.eu/>). Focusing on the processes of 3D digitisation and modelling, participants have been “thinkering” – the combination of tinkering and critical reflection (Huhtamo, 2010) – with media heritage objects, exploring the value of 3D technologies for documenting and enriching media heritage collections through digital storytelling practices.

The presentation will highlight some of the 3D scholarly editions, including the “self-reflexive tours” in which students reflect on their own thinkering processes, shared also through focus groups at the end of the project. To what extent have the practices of 3D digitisation and modelling stimulated their learning processes and enhanced their understanding of the media historical devices as epistemic objects? Reflecting on these experiences, the notion of a *digital* experimental media archaeology will be developed – one that combines the affordances of digital technologies for creating multimodal narratives with a hands-on and sensorial approach to historical media objects. It will be argued that such a digital experimental media archaeology approach not only enables new forms of digital storytelling – for instance, enriching 3D models with interactive features and providing annotations for historical contextualization – but also new forms of knowledge production and dissemination, allowing for new ways of “sensing the past” (Smith, 2007) that connect the digital and the material (“digital materialities”) as well as the physical and digital (“phygital”) (cf. Pink et al., 2016; Andrade and Dias, 2020).

**Keywords:** 3D, 3D digitisation, 3D modelling, 3D scholarly editions, digital storytelling, digital collections, experimental media archaeology, thinkering

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