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MATERIAL HISTORIES OF PAPER

> Paper, our age-old friend, accompanies us, in the most diverse of ways, in every gesture of daily existence, in the most serious and the most trivial occasions of private and public life, in the pleasures of the body as well as those of the mind, in front of the representatives of authority as well as in parties without a tomorrow: it is the ephemeral and the permanent, the meaningful and the insignificant, the precious and the disposable, memory and oblivion.
>
> — Pierre-Marc de Biasi[1]

In the song "Les p'tits papiers" (1965), written and composed by Serge Gainsbourg, the singer Régine recites a refrain where all sorts of papers are listed: tissue paper, blotting paper, rice paper, Armenian paper, corn paper, velvet paper, flypaper, silver paper, banknote paper, adhesive paper, carbon paper, machine paper, music paper, drawing paper, golden paper. What's more, these papers do all sorts of things: they console, speak, warm, burn… In this whirl of paper, madness mingles with death, money, and love. But Régine and Gainsbourg are not impressed, and the song ends with relentless nonchalance: "Floral Paper / Or we don't care."

A quick look in a dictionary[2] likely reveals that the list from the song could stretch on, and on: familiar items like newspaper, crepe paper, paper towels, and kraft paper rub shoulders with less common (or more outdated) items like tracing paper, onion skin paper, parchment paper, and blueprint paper. There are even a few impostors, such as liquid paper or silver paper which are not paper at all. What's more, we can't help but marvel at the richness of expressions that include the word "paper": when something is serious, we commit it to paper, but something of no value is not worth the paper it's written on. We can unmask paper tigers, put pen to paper, get caught in a paper chase. Someone who does boring work is a paper pusher, and being given one's walking papers is usually not good news.

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What's striking about these endless lists is the breadth of paper's meanings: paper is present at once at the scale of our hands, small and insignificant, like the sheets of paper we handle every day (printer paper, Post-it notes, shopping lists, pages of books, metro tickets, cardboard boxes left on our doorsteps), but also on the vast scales of centuries and cultures, the repository of knowledge, history, memory, monetary value, the index of administration, bureaucracy, and our identities. We care for some papers while others we treat carelessly; we store some and burn others. As we oscillate between these attitudes and material treatments, what remains unwavering is that paper is an enduring infrastructure of human society.

Despite its ubiquity, paper might well be one of the most invisible and underestimated of contemporary technologies. Last century's call for the "paperless office" has yet to fully take hold, and our work environments have, if anything, become hybrids of digital and analogue – one everyday example is the extent to which the form and logic of paper documents still shape their digital versions[3]. For every tap of our banking card to make a payment is still the relic of a contract or deed that must be signed by hand. For every article espousing the affordances of reading on screens is a reader happily grasping on to their beautifully printed niche magazine. And if we have digitized our paperwork, newspapers, and diplomas, we are still firmly living amidst paper logics and techniques, surrounded with reminders of the transversal and formative ways that paper has shaped modern societies. And yet, because it is an "old" technology, paper has become largely absent in the futuristic and novelty-driven discourse that animates technology prognosticators and enthusiasts or, at best, a material problem on its way to becoming digitized.

Many of today's paper forms, practices, and systems were introduced centuries ago, when paper first became a widely accessible and available resource. Looking back is therefore essential to make sense of the present's attachment to paper and its ongoing application of paper imaginaries. It is impossible to put an exact date on the invention of paper: the earliest specimens, found in Central Asia, date back to at least the 2nd century BCE while common lore has it that it was invented in China by Ts'ai-Lun in 105 CE. What we know for certain is that it first became widely used in the 4th century, also in China. It then moved westward to the Near East (probably using the Silk Road), where it took hold in the 8th century[4]. In this migration, as with those that will follow, the materials used to make paper would change to adapt to the local environment and its available resources; while in China early paper was made from mulberry, hemp, and China grass, in the Arab peninsula — where the soil is arid — linen and hemp rags became its primary material. Paper spread further west and northwards across Europe, starting with Spain and Italy in the 11th century and became so common by the early modern period that Europe was already then described as "a culture of paper"[5].

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By acknowledging the often fleeting nature of our attention to the various papers that that make up the fabric of daily life, of modern society, and, more generally, of the human experience, this anthology proposes to reflect, from a historical perspective, on the material manifestations of paper. By shifting our mode of attention from what is on the paper — images, texts — to the paper itself — *colour, texture, grain, volume, flexibility, porosity, format, dimensions, thickness* — the texts in this anthology make visible paper's presence in the world. Through its manufacturing processes and its constantly renewed uses and meanings, paper transformed societies. The ambition of this anthology is to provide a list of texts and resources united by the common thread of paper's material histories.

Approaching Paper Materialities

The proposition of our anthology is situated within a particular moment in the humanities and social sciences, particularly in a paradigmatic shift that media philosopher John Durham Peters refers to as the move from structuralism to infrastructuralism. Departing from the analysis of systems of signs and meanings, which was the focus of structuralism, Peters suggests infrastructuralism as a "doctrine of environments and small differences, of strait gates and the needle's eye, of things not understood that stand under our worlds"[6].

The concept of infrastructuralism echoes what is known as the "material turn," a convergence of approaches around the questions of materiality that has been influential in many different disciplines. A number of theoretical approaches, such as critical materialism, new materialism or object-oriented ontology, have been deployed in a space of interdisciplinary reflection[7]. In media studies, various traditions have shaped conceptual tools for the analysis of media forms by bracketing the interpretation of meaning and focusing rather on material elements. The well-established scholarly traditions of Canadian media theory[8] and German media theory[9] have argued that the materialities of communications are an integral component to our experience of media and mediation, and offer renewed possibilities for thinking the human experience (and its interactions with the non-human). These theoretical frameworks are often referred to as foundational paradigms for research engaged in the objects, stuff, and things of media studies, including logistical media studies, critical infrastructure studies, elemental media philosophy, environmental media studies, and object lessons[10]. Likewise, disciplines including geography, history, information science, archival studies, cinema studies, anthropology, literature and the arts, science and technology studies, and design, have a history of turning to objects as an important component of research and knowledge production. This turn to the material has been a far-reaching and sustained process that is in many ways reshaping research agendas, theories, fields, and even disciplines.

The material turn has also been reflected in the ways that recent research by scholars, authors, librarians, archivists, and artists have treated paper: paper as substrate, symbol, and environmental presence in the literary studies and the arts[11] ; paper examined through journalistic case studies of the pulp and paper mill industry[12] and papermaking histories focused on infrastructure and political economy[13]; paper through information practices themselves[14]; as surface and medium by art historians[15] or documents taken up through legal scholarship focusing on paper trails[16]; as an index of governmentality in certain anthropological projects[17]; as the manifestation of gendered work and labour[18]. Despite the differences in their approach, these works attest that paper is transformative as it performs social, political, economic, cultural, and epistemological functions.

In addition to these recent developments related to the material turn in the humanities and social sciences, several disciplines, such as book history, archival science, and bibliography[19] have long developed tools and built significant knowledge about paper and its materialities. Bibliographers, for example, have accumulated expertise in dating and locating paper, particularly through the study and inventory of watermarks and other tools of codicology and forensic bibliography. Academic associations around the world and several research groups have organized around the study of paper, including the International Association of Paper Historians (IPH), l'Association française pour l'Histoire et l'Étude du Papier et des Papeteries (AFHEPP) and the British Association of Paper Historians (BAPH)[20], to name just a few. Numerous academic journals and special issues have also shed light on the long and rich history of paper, while several bibliographies provide a transdisciplinary overview of research on paper.[21] The general public can become familiar with the history of paper through various exhibitions presented in museums, archives, or private collections, which provide access to local narratives about the paper industry, paper arts, or the instruments, materials, and techniques of paper-making.

We are therefore far from the first to recognize the dynamism of research on paper as a material, or to acknowledge the analytical, explanatory, and descriptive richness that paper offers. Our contribution lies in the particular focus that has guided the creation of this anthology: we have selected texts that highlight the importance of paper as a material or object and consider it in many of its diverse forms and functions. Paper is not just a medium for texts: it decorates walls, is folded to create shapes, serves as packaging, is the product of industrial and artisanal practices, is a resource bought, traded, and recycled, can burn or become a substrate for fungi and mold, and is subject to preservation efforts, as well as being an object of art and craft. Paper produces and sustains relationships; it is the medium for scholarly and literary works, but it is also found in kitchens, hospitals, offices, banks, subway seats, and ticket counters. This is why we agree with author Ian Sansom, that "we live in a paper world."[22]

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The creation of this Living Book stems from the Paperology collective, a group for collaborative reading and activities on paper founded in autumn 2020 by the editors of this anthology. The creation of several reading lists[23] was one of Paperology's projects that has directly led to this Living Book. Given the vast amount of work available on the subject, putting together an anthology on the history of paper can never be exhaustive or final. Without listing all of the decisions that shaped our final selection of resources, a few of the questions we faced are worth mentioning. First, the anthology we propose does not have a single disciplinary anchor and thus reflects the transdisciplinary nature of research on paper. The places from which paper has been studied are numerous and heterogeneous, further highlighting the ubiquity of paper in various fields of human activity. If it were institutionalized, a field of "paper studies" would be intrinsically interdisciplinary, similar to cultural studies or gender studies, intersecting multiple academic traditions as well as the realms of arts, architecture, politics, and technology. Second, it is impossible to produce an exhaustive list of paper research. This anthology is therefore not a comprehensive presentation of work on paper materialities, but we hope it will serve as a point of entry, whether for those overwhelmed by the breadth of literature on paper and paper objects, for those looking to build a course or seminar on paper, or simply for readers who are exploring paper worlds for the first time. Indeed, once you begin to approach research through the prism of paper, you discover that it is, as in everyday life, always already there.

The Structure of this Living Book

With these issues in mind, we have chosen to structure this anthology around verbs that evoke actions: "Creating Paper," "Moving Paper," "Organizing (with) Paper," "Manipulating Paper," and "Enduring Paper." Varying the perspectives—exploring how paper is made, what paper does to us, and what we do with paper—suggests that paper is by turns and all at once both object and subject. Some themes therefore appear in multiple chapters, as they traverse the worlds of paper without exhausting their meanings or implications. Each verb also contains a wealth of meanings, and each chapter challenges the others: to create paper, for example, is at once to invent it, to manufacture it, and to look at all the consequences that its manufacturing processes can have. Organizing paper involves, among other things, establishing the conditions for the persistence of paper over time (through the creation of objects, monuments, and places for this purpose), but also refers to the necessary circulation networks organized by paper. We could provide a long list of possible resonances and connections between the different chapters, but for the purposes of this introduction, it is probably enough to note that they are abundant.

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Other considerations have also shaped the selection of the texts in this anthology, including the inclusion of texts in French and in English, and those describing the uses or production of paper in different geographical regions and at different times. However, it should be noted that the order of the texts does not seek to trace a chronological arc of the history of paper: the division is rather thematic, which allows us to go back and forth between different historical periods in a way that we hope will be fertile and stimulating. Furthermore, as it is a raison d'être of the Living Books series, our choices were guided by the availability of freely accessible texts. Invariably this also means that significant authors and works could not be included. Then again, since we are on an online platform, we were able to include complementary resources for each chapter: these include links to videos, websites, articles, blog posts, artworks, or digital humanities projects. Another indication of the breadth of interest in paper, these complementary resources can serve as teaching tools or, simply, an entertaining collection of curiosities.

Chapter 1: Creating Paper

Where does paper come from? How, when, and where did it emerge? Paper has been the subject of transfer, appropriation, diffusion, adaptation, fashion, and oblivion. In this first chapter, we propose a number of resources covering the emergence of "the momentous invention"[24] that is paper, as an object and as a concept. Not just any surface for inscription will do: while there's a certain consensus that paper is a material made from a pulp of plant fibers, spread out and dried into thin sheets, other surfaces on which inscriptions are left, such as birch bark[25], papyrus or bamboo, can be approached as "almost-papers", as Dupuigrenet-Desroussilles nicely calls them in *La galaxie Tsaï-Loun*. Several of the texts in this first chapter set out the main milestones in the history of paper. Readers will find an excerpt from a classic in the history of the book, written by French historians Lucien Febvre and Henri-Jean Martin in 1958. As for Dupuigrenet-Desroussilles and Bloom, each offers a specific account of the development and circulation of paper, demonstrating that it has been, from the outset, a global story.

Questioning how paper is created does not stop at the matter of its "invention," so this chapter offers several texts that shed light on the issues related to papermaking. Making paper involves not only shaping a material, but also requires knowledge, techniques, tools, methods, and gestures. Bloom's text, for example, discusses the history of the circulation of papermaking techniques in the early Middle Ages. Similarly, the "creation" of paper must be continually renewed and seems never-ending: since its lifespan is limited, paper only survives if the knowledge and technologies surrounding its production endure. Through this history, we also see that paper is a malleable material that adapts to the resources available in certain

regions and at certain times[26]. Paper production has thus been subject to improvements, trends, and regional variations. Artisans and industrial paper manufacturers alike have refined their production techniques and, in the process, left traces of their methods in the paper itself. On this matter Georgina Wilson offers an insightful history of watermarks through an analysis of the folio *Sejanus His Fall* (1605): in doing so she underscores the work of papermakers and ragpickers who provide the raw material on which the text is written. The case of Dutch azure blue paper produced in the 18th century, discussed in Dena Goodman's text, is another compelling episode in the history of papermaking: this characteristic colour made the production methods brilliantly visible.

Finally, creating paper also has industrial, social, and environmental costs and implications and the last texts in this chapter address the exploitation of resources, whose transformation into paper depends on workers and industries. We move here to the North American continent to explore the production of paper money from rags in the United States, as described in the text by Jonathan Senchyne[27], as well as the production of paper from Canada's trees (see the text by Aleksandra Kaminska and Rafico Ruiz and the short film by de LaRoche produced by the National Film Board of Canada).

Chapter 2: Moving Paper

It is almost a cliché in communication studies to say that paper is a medium with a "spatial bias." By the concept of "bias," Canadian economist Harold Innis (who would inspire some of Marshall McLuhan's theories) sought to explain the impact of writing media on the exercise of power and on types of political organization[28]. For instance, writing on clay would favour organizations that persisted over time and maintained continuity in their systems of thought, whereas writing on paper would favour the exercise of power across space, leading to centralization and bureaucracy. Innis's proposition highlights one of paper's primary functions: its ability to circulate. More ephemeral, fragile, and unstable than other media, paper shapes through its lightness and mobility.

Chapter 2, "Moving Paper," explores various aspects of this notion of circulation, notably through different moments in paper's life cycle. The movement of paper as a resource, manufactured and sold, is addressed in texts by Daniel Bellingradt and Céline Gendron. The paper trade relies on transport networks, often transnational, which are sometimes also used for other goods. These studies, which combine economic, political, cultural, and administrative history, show the extent to which the paper trade was based on vast systems of exchange. A second perspective in this chapter examines the circulation of paper as a medium for long-distance communication. Whether in the form of trade cards (see the text by Philippa Hubbard), letters, reports, passports, or indulgences, papers of various formats and

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for different purposes crossed private and public spaces, are exchanged from hand to hand, or borrow material infrastructures that enable them to travel. The importance of paper as a means of long-distance communication can ultimately also be seen in its infrastructure. The digital cartography project *Gossamer Network* seeks to make this visible by showing the material elements that form the backbone of a nascent American postal system.

It should be noted, however, that the movement of paper is often concealed, and sometimes even deliberately absent: it is the diary we hope will never fall into the hands of a reader, the sales contract quickly put out of sight, the greeting cards kept in an old shoebox. Archives and libraries are the key places for preserving culture and knowledge on paper, one of the privileged media through which we can question the past. Preserving paper erodes its circulation: it immobilizes paper to ensure its endurance over time[29]. Heather Blum's text, *Dead Letter Reckoning*, sheds light on this tension between mobility and fixity: 19th century navigators of the polar regions recorded the details of their expeditions by leaving letters and reports in fixed locations. The circulation of these documents remains latent, demonstrating the challenge of overcoming the limits of time as well as space.

Chapter 3 : Organizing (with) Paper

Among paper's many qualities, a notable one is its ability to pile-up. The availability and affordability of paper paved the way to administrative and bureaucratic practices, and the neverending management of *paperasse* (the paper of paperwork) has kept us busy ever since [30]. Paper begat more paper as face-to-face communication and diplomacy were replaced by letters and documents. Paper has been used for administration and official documents from its outset, but it truly flourished as a tool for state governance, religious authority, and the business of accounting when it arrived in the Arabic peninsula. While paper was used in the Middle Ages in Europe, it is in the early modern period that it became commonplace, with the largest of organizations progressively turning to a rule by paper: kingdoms, empires, religious societies, and corporations became enthusiastic record-keepers, creating paper trails for their affairs[31]. A notorious case of the period is that of the "Paper King," Phillip II of Spain[32], who received and produced so much paper that the enthralling promise of being able to gather everything rather produced a feeling many of us know too well — the overwhelm of information overload (a sentiment that traverses time, as it is psychedelically illustrated by the 1967 video, *Paperwork Explosion*). It was at this time that, in Europe, paper became increasingly used in everyday life, and not just by the elite: for letters, bills, contracts, posters, pamphlets, ballots, and much more. This was the "age of paper," a time when "[p]aper, as never before, became the transactional medium; the repository of personal, communal, and institutional memory; the avenue of communication; the lifeblood of bureaucracies; and the

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foundation and residue of learning"[33].

Two large problems emerged from this abundance of paper. First, how did we organize all the paper that was now being churned out in the name of information and record-keeping? And second, how did paper do all this work of organizing? The challenge of storage and retrieval was addressed through solutions large and small. At the individual level, we might consider the many types of "aggregation books" that helped people keep various bits of paper in more or less logical ways. These included commonplace books, scrapbooks, recipe books (see text by Elaine Leong) or writers' notebooks (see text by Claire Bustarret)[34]. In the organized activities and spaces of work, we developed specialized paper things such as calling cards, rolodexes, files, folders and their cabinets (see text by Craig Robinson); while at larger scales still we saw the rise of institutional and state archives, in which we would deposit the traces of governance[35]. With this accumulation of paper also came the need for systems of retrieval: simple ones like alphabetization but also more ambitious and consequential types of ordering such as taxonomies and classification schemes (such as those of Paul Otlet), or what we would today call information management[36].

Paper became an unparalleled organizational tool in part because it allowed for standardization. Paper's affordances and availability facilitated the production of standard documents such as certificates or identification papers, many of which would become official, meaningful, or otherwise valuable through their form (these are the papers that come to mind when we hear "Papers please!"). This performance of authority through the materiality and aesthetics of bureaucratic paper is at the heart of Julien Bonhomme's text on religious "passports" in the Congo. Paper also proved to be the right substrate for new techniques and logics of format and inscription, including ledgers, receipts, blank forms or, as Liam Cole Young explains, lists[37]. Through all these systems for paper organization we also see the ways that paper organizes *us* — our ways of thinking and remembering, our forms and hierarchies of governance, our daily lives and identities, our production of knowledge, our societies and its imaginaries.

Chapter 4: Manipulating Paper

The texts in Chapter 4, "Manipulating Paper," highlight some of the material qualities of paper and, in particular, how a sheet of paper is often an invitation to be touched and manipulated: it can be folded, pierced, perforated, torn, pinned, sculpted, cut, slit, crumpled. Here we see the emergence of an intimate relationship between our hands and paper, which also shows just how expressive paper can be, far beyond the words or images that can be written or printed on it. For example, In the Valentine's Day cards from the second half of the 19th century described by Christina Michelon, it is the tactility of the paper that creates emotion,

rather than its very generic messages. Paper is here expressive in itself, and it is this quality that some artists seize upon[38], whether they are making book sculptures or playing with the varieties of patterns created by cutting, folding, and collaging[39] (see Adam Smyth's text and interviews with artists Myriam Dion and Alexandre Melay). Many artists move away from the page as a flat space, and invest all the dimensions of paper, including those created by its absence — the artist Myriam Dion likes to describe her patient cutting work with the French verb "*ajourer*," meaning that she seeks to highlight paper's ability to let light through. But paper's expressivity can also be political, as seen in Patricia Crain's text on ballot papers, or even religious, as in the case of the paper offerings burned in Hong Kong as documented by Janet Lee Scott. Thinking of paper in close association with the hand (as hand-made) therefore goes beyond the question of papermaking (artisanal or industrial), but also evokes all the gestures or "making"[40] that paper suggests. Those mentioned in this chapter illustrate a whole range of knowledge and skills (or know-how) acquired through the manipulation of paper, in both domestic and scholarly spheres, or precisely at the confluence of the two[41].

Chapter 5: Enduring Paper

The final chapter, "Enduring Paper," explores the past and future trajectories of paper. The texts outline a tension between destruction and preservation. Curiously enough, paper is both eminently fragile and surprisingly robust. There are numerous threats to the physical integrity of paper artifacts: they can be shredded into fragments by a voracious machine (as discussed by Sarah Blacker), deliberately torn (as illustrated by the work of Maureen Flint), or unintentionally damaged, and are subject to various biodeterioration processes,[42] whether devoured by parasites, at the mercy of water, ambient humidity, fire, or mold[43]. But the boundaries between the life and death of paper are far from clear: when exactly does paper begin, and when does it end? Paper seems to be at the heart of many transformation processes, both before and after what we initially conceive as its primary uses as a documentary medium. Indeed, paper has long been the product of what we would today call recycling, as it was made from rags—textiles that had reached the end of their useful life and were subject to intense recovery and reuse activities. After being used as a documentary medium, paper can be reused in a number of ways, for scribbling notes on the back or in the margins, as wrapping paper or as material destined for recycling. Throughout these transformations, destruction and survival intertwine[44]. As Malcolm Walsby's text shows, in the 15th, 16th, and 17th centuries, books that were deemed unnecessary or of lesser value were disassembled and reused (here to reinforce a cover, there to repair a fragile page), allowing book historians today to reconstruct these works, which would never have reached us otherwise.

The texts in this section also outline a tension between ephemeral and permanent papers. On one hand, the catch-all category of "ephemera" (sometimes referred to as "vieux papiers" in French) encompasses a heterogeneous collection of papers that share the common trait of not being subject to the same efforts of organization, collection, and preservation as books[45]. These "non-books," whether playing cards, advertising leaflets, greeting cards, subway or show tickets, raise tricky questions of conceptual categorization, archiving and conservation policies, as discussed in the text by Olivier Belin and Florence Ferran. Lucie Favier examines the challenges of paper preservation at the other end of the spectrum, in the coordination efforts required to establish an international ISO standard for "permanent paper." To these various paradoxes of paper—fragile yet robust, ephemeral yet permanent—we can add the cost of its persistence over time: to preserve memory, we store manuscripts, books, and documents in environments with strictly controlled atmospheres, the environmental costs of which are being increasingly questioned.

* * *

All the texts and resources presented in this anthology bear witness to a vibrant history of paper. While this anthology takes a historical approach, this does not mean that paper is behind us. The many contemporary uses and practices of paper will continue to populate the material histories we outline here, just as Chinese papermakers, Italian merchants, and Canadian forests did in centuries gone by.

Finally, we are keenly aware of the irony of presenting an anthology on paper in an entirely digital format. All the texts gathered here are indeed available online, and it is likely that most readers will encounter them through screens, thus missing out on the tactile experience of paper: its smell, textures, and fragility as a lived experience. We hope that this absence will be productive, allowing readers to approach paper differently—perhaps with a hint of wonder, a moment of suspended curiosity—the next time they hold a sheet of paper in their hands.

[1] Biasi, Pierre-Marc de: Le papier, fragile support de l'essentiel, in: Les Cahiers de médiologie 4 (2), Paris 1997, p. 7–17. Online: <https://doi.org/10.3917/cdm.004.0007>, accessed: 04.07.2024. [Our translation]

[2] Druide informatique: Paper, in: Antidote Dictionnaire, accessed: 24.05.2024.

[3] See, Gitelman, Lisa: Paper Knowledge. Toward a Media History of Documents, Durham 2014 or Dourish, Paul: The Stuff of Bits. An Essay on the Materialities of Information, Cambridge (MA) 2017. Online: < https://doi.org/10.7551/mitpress/10999.001.0001 >, accessed: 04.07.2024.

[4] Hunter, Dard: Papermaking. The History and Technique of an Ancient Craft, New York 1943. Some additional histories of paper include Fowler, Caroline O.: The Art of Paper. From the Holy Land to the Americas, New Haven 2019; Kurlansky, Mark: Paper. Paging Through History, New York 2016; Bloom, Jonathan M.: Paper Before Print. The History and Impact of Paper in the Islamic World, New Haven 2001; Da Rold, Orietta: Paper in Medieval England. From Pulp to Fictions, Cambridge 2020; Weber, Therese: The

Language of Paper. A History of 2000 Years, Singapore 2008; Müller, Lothar: White Magic. The Age of Paper, Cambridge, UK 2015; Baker, Cathleen Ann: From the Hand to the Machine. Nineteenth-Century American Paper and Mediums. Technologies, Materials, and Conservation, Ann Arbor 2010; For examples in French, see Polastron, Lucien X.: Le papier. 2000 ans d'histoire et de savoir-faire, Paris 1999; Laulhère, Catherine; Dubus, Thierry: III. Le papier, in: La fabrication, Paris 2012, p. 41–56. Online: <https://www.cairn.info/la-fabrication--9782765410133-p-41.htm>, accessed: 04.07.2024; Salmon, Xavier; Hundsbuckler, Victor; Noujai, Souraya: Histoires de Papier, Abu Dhabi 2022. To explore paper history through the archives, see for example: Les supports de l'écrit, BnF Les essentiels, <https://essentiels.bnf.fr/fr/livres-et-ecritures/formes-et-usages-des-livres/74c24a4a-ad1c-415e-918b-c8d336b4f3a6-supports-ecrit>, accessed: 04.07.2024.

[5] Dover, Paul: The Information Revolution in Early Modern Europe. Cambridge (UK) 2021, p. 40.

[6] Peters, John Durham: The Marvelous Clouds: Toward a Philosophy of Elemental Media, Chicago 2015, p. 33.

[7] See for example, Barad, Karen: Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning, Durham 2007; Bennett, Jane: Vibrant Matter: A Political Ecology of Things, Durham 2010; Carlile, Paul; Nicolini, Davide; Langley, Ann; Tsoukas, Haridimos: How Matter Matters : Objects, Artifacts, and Materiality in Organization Studies, Oxford 2013; Coole, Diana; Frost, Samantha: New Materialisms: Ontology, Agency and Politics, Durham 2010; Dolphijn, Rick; van der Tuin, Iris: New Materialism Interviews & Cartographies, London 2013; Parikka, Jussi: New Materialism as Media Theory : Medianatures and Dirty Matter, in: Communication and Critical/Cultural Studies, 9(1), p. 95-100. Online: < https://doi.org/10.1080/14791420.2011.626252>, accessed: 14.10.2024.

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