

## Inscriptions and Techniques

### Marginalia

Most media are designed to store *something* for a period of time, with recordings limited to the particular physical form that characterizes that medium. A photograph can only store light reflected off a surface, fixed and made permanent through chemicals that react with light-sensitive paper. A record—a vinyl LP, that is—can only store sounds as grooves etched into its surface. Digital media store a wide range of things, but only as long as they can be converted to binary information, written onto hard drives as magnetic fields, or onto DVD and Blu-Ray discs as physical pits that reflect light. This act of recording is implicitly political, for reasons that will become clear as this chapter goes on. The physical capacity of a medium to store and record shapes the role a medium has in participating in and determining reality. Attending to these physical capacities radically remakes the very purpose of any analysis of media.

“Texts” have long been a common term used by those in media studies for the things they study, as we’ve mentioned throughout this book so far. This is the case even if the thing examined is not, properly speaking, “textual,” but is a film, an artwork, a video game, a television show, or a song. We nonetheless approach these varied forms of media as if they are analogous to literature. This perpetuates the belief that the significance of any representation is found in the “meaning” of its content, which, like words on a page, can be “read” by the critic. Variations on a model developed for the study of literature is extended to all forms of media—and, ironically, this model doesn’t even address the material specificity of literature. Literature is bound to print, and unless we address the specificity of print (and, for instance, how words and their arrangement are remade with technologies other than print) we miss something about literature and how it creates meaning. This approach is partial, as it disregards the materiality of a medium and how that materiality is conjoined with the meaning we get from reading, watching, or otherwise consuming media. To demonstrate how this turn to materiality and recording might reimagine interpretation, let’s begin with an example—one linked

to literature and one that reveals how a materialist approach is, perhaps surprisingly, very controversial.

In her essay “Incloser” (1993), the poet and essayist Susan Howe criticizes the editors of the *Autobiography* of Puritan Minister Thomas Shepard for, among other things, cutting out eighty-six blank pages of Shepard’s original text in their editing. Her essay takes its name from the spelling Noah Webster gave in his dictionary for the word we render as “enclose,” where an “incloser” is the name Webster gave for the person or thing that “incloses.” Shepard’s *Autobiography*, a foundational historical document for understanding the culture of colonial New England, was written in the first half of a small notebook. If, in reading Shepard’s original notebook, you turned it upside down and flipped to the back, you would find additional writing—writing that didn’t seem to follow the *Autobiography* proper and which Shepard’s editors referred to as “notes.” In preparing Shepard’s writing for publication, the editors removed the blank pages, along with the fact that one would need to turn the notebook over and around to read the notes. Why include blank pages? What function do these have as part of the text? (Or, why print the notes upside down?) Why are these pages, or the spatial orientation of Shepard’s notebook, important for us understanding Shepard’s writings? Many of us would probably side with the editors—the blank pages aren’t part of the text itself and can be discarded without any significant impact on our reading or understanding of the *Autobiography*. Only the words matter, we might assume.

Howe, however, claims that the text is a material object—it includes more than the words on a page. The shape of words themselves, the blank space on paper, the physicality of writing, these are all part of the text as a material thing and should be included in any reproduction. These spatial elements of writing, while linked to the history of poetry as an oral technique of song and memory, have been reimaged since the birth of print by poets like Howe, who experiment with the location of words on pages to explore the potentials and limits of writing as a means of expression. The materiality of media and the “meaning” written into poetry are linked. It would seem that, for Howe, as it is for the media theorist Friedrich Kittler (1990b), poetry is something that only exists in relation to specific technologies which transform what can be written and how “writing” can be expressed.

Literary critic Walter Benn Michaels disagrees with Howe, to such an extent that he sees her argument for materiality to completely undermine the very idea of literature, meaning, sense, and “truth.” If we take materiality seriously, Michaels suggests, it follows that we cannot care if someone “was writing poems or making drawings” (2004, 5). When we foreground materiality, he argues, the idea of interpreting literature or poetry ceases to be about the

“knowledge” revealed by the interpretation of meaning, which, for Michaels, is about judging an author’s intent. Materiality, Michaels claims, threatens to transform writing into something visual, not textual, and prevents the very existence of “truth” in literature and poetry, as all interpretations become little more than elaborations of subjective experience.

If Michaels is to be believed, this is the choice we have with this debate—either authorial intent or subjective experience. But there is another option. Fortunately for us (and, given Michaels’s emphasis on authorial intent, ironically), Michaels neglects the point of Howe’s central thesis. One of the reasons that the actual document is important for Howe is that *marginalia*—asides, traces within and on the edges of a page, textual artifacts like doodles and scribbles, and other kinds of commentary that exist beyond the authoritative “text” of something—are often removed in editing. Yet margins are places we can find factual evidence about historical events. The reason for this is simple. With any medium, something was written, recorded, inscribed—something that may not be intentional, something that may not be clearly “textual” or “meaningful.” We can return to Howe’s discussion of Thomas Shepard’s *Autobiography* to explain why marginalia matters.

Shepard is an important historical figure because of his role in the “Antinomian Controversy,” also termed the “Free Grace Controversy,” a period in Massachusetts history from 1636 to 1638 when a group of Puritans, most notably one named Anne Hutchinson, began to advocate religious beliefs that diverged from the orthodox teachings of Puritan ministers. Because of her beliefs and her willingness to challenge the authority of the church, Hutchinson, who had become an influential religious figure, was eventually tried and banished from Massachusetts. This event is important for the legacy of religious freedom in the United States and is a notable example of gender relations and conflicts in colonial America. With Hutchinson, we have a figure of a woman who fought authority in the name of religious belief—and, at least in the short term, lost.

Typically, figures like Hutchinson are forgotten as history moves along. As Walter Benjamin famously remarked, “There is no document of civilization which is not at the same time a document of barbarism. And just as such a document is not free of barbarism, barbarism taints also the manner in which it was transmitted from one owner to another” (1968, 256). Or, history is written by the victors, annihilating and forgetting the marginal and resistant who may have lost their historical battles. The telling of history repeats these conflicts, acting as if their outcome was given by the grace of god rather than by contingencies. History too often effaces those who did not “win,” which includes not only countless women but also the vast majority of individuals in their everyday lives. Histories of the working class, for instance, have to

examine the past obliquely because workers and peasants simply do not appear in the authoritative documents of history, which tend to be written by the church or the ruling class (cf. Thompson 1963). Howe looks to Shepard's writings to find traces of the other women in Massachusetts at the time, as men—like Shepard—were responsible for documenting the religious testimonies of the women in Massachusetts. Many of these testimonies were noted in Shepard's journal. This means, as Benjamin implies, ways of knowing about the Antinomian Controversy are marked by the barbarism of the church—but, in looking at the margins, we can find traces of a history that this barbarism worked to exclude from existence, traces that nonetheless appear because of the materiality of a medium.

Shepard, like others given the same task, did not do a particularly good job of recording testimonies given norms that defined who had the authority to speak and who had the authority to be heard. The time of Shepard and Hutchinson was one of deep social and religious oppression. Individuals found themselves unable or unwilling to speak in public about their own beliefs. The fact that women's testimonies made up much of the history written down by Puritan authorities was notable in and of itself. These testimonies were written quickly and without care, using terms and symbols that both effaced speakers' identities and retained oblique hints as to who they were.

The physicality of writing inscribes into the text affect, motion, and other traces of the body of the writer, which are removed when the text becomes printed, edited words. It effaces the traces of the women, so central to this historical moment, only tentatively recorded given the authority figures tasked with writing. These women are, potentially, edited out of existence. The editors—along with Shepard himself—act as “inclosers,” drawing boundaries around what gets written and what gets remembered. In the process of moving from handwriting to printed word, the materiality of the text likewise serves to “inclose,” drawing boundaries between what is “in” the text and what is “outside” of it. In forgetting the materiality of the text, the women who were part of this history no longer materialize. As Howe states, “When we move through the positivism of literary canons and master narratives, we consign ourselves to the legitimation of power, chains of inertia, an apparatus of capture” (1993, 47). We can read otherwise by looking at the margins of pages, of incidental scrawls, of traces of another history written down, but forgotten. But if these traces are deleted, then they no longer materialize.

These kinds of erasure happen today, too, often with the help of legal authorities that work to annihilate and destroy, often in the name of “privacy” and “personal information.” In her formally inventive novel *I Love Dick*,

which combines fiction, memoir, art criticism, and theoretical speculation, Chris Kraus tells a story of the artists Claes Oldenburg and Hannah Wilke, who had a relationship, lived, and worked together from 1969 to 1977:

In 1985 Claes Oldenburg threatened an injunction against the University of Missouri Press. They were preparing a book of Hannah Wilke's work and writings to accompany her first major retrospective.

In order to protect his "privacy," Claes Oldenburg demanded that the following items be removed: 1) a photograph from *Advertisements For Living* that depicted Claes together with Hannah's eight year old niece. 2) Any mention of his name in Hannah's writings. 3) Reproduction of a collaborative poster, *Artists Make Toys*. 4) Quotations from a correspondence between him and Hannah that was a part of Hannah Wilke's text, *I Object*.

Claes' fame and the University's unwillingness to defend her made it possible for Oldenburg to erase a huge portion of Hannah Wilke's life. *Eraser, Erase-her*—the title of one of Wilke's later works. (1998, 217–18)

With this story, Kraus points us to how personal lives are intertwined. Living means losing control of one's image and self—and yet, that control can be reasserted through legal regulation of documents, inscriptions, and artworks that, in combination with the power of a medium to record, either permit or prohibit something from existing as evidence in the future, which can allow (or refuse) specific individuals and relations to materialize. This is another example of how unequal gender relations are maintained through the management of a medium's physical presence.

Michaels, like so many literary critics threatened by materiality—as it seemingly transforms the study of poetics and literature into art history, archaeology, and media theory—believes that a turn to the physicality of an object is a turn away from "truth," and that the only thing that we'd be able to acknowledge would be individuated, subjective experiences of specific objects. Materiality, for him, only matters when intended by the author. The women who have been edited out of existence, their traces canceled, the relations that have been legally destroyed, do not matter to him. The only thing that matters would be whether or not Shepard intended his scrawls to mean something, or whether Wilkie or Oldenberg intended for the existence of the other to be important for how their work is understood (in spite of the obvious fact that their relationship does matter in terms of how the work of *both* is understood).

Michaels is incorrect in arguing that materiality merely leads to the subjective, or is otherwise insignificant, for reasons we have already seen.

What materiality turns us to is not subjective feeling or authorial intent, but objective fact: a medium permits something to be written down and stored over time. It remains regardless of interpretation, regardless of intent. As Howe suggests, materiality provides the evidence for historical facts that have otherwise been forgotten. In the case of the Antinomian Controversy, it gives us evidence about women who mattered, but who otherwise fail to materialize in our present. In the case of Oldenberg and Wilke, it demonstrates how the legal regulation of inscription can make a relationship fail to materialize.

This turns us away from meaning, and it turns us away from authorial intent. It instead turns us to the specific effects brought about through the use of a medium to record and recall. What exists over time? How do kinds of recording enable the organization of experience? How does this, in the end, shape what a body is and does? How does it transform memory? How does a medium permit something to *happen*? What does a medium *perform*? These questions have implications not only for how we understand sensation, experience, and creative expression but also for the practices that define what we call “culture” and the very possibilities of history and memory as such. And, since I argued in Chapter 1 that we can rethink representation in these terms, it moves issues of representation away from “interpretation” (so often dismissed as subjective) to concrete attributes of a medium and what it does—though, at the same time, it never completely does away with interpretation. We have to make sense of materiality for something to materialize.

As the German media theorist Markus Krajewski demonstrates, in his excellent history of the “server” and the “servant,” understanding media requires an *epistemology of the marginal*. This means that we not only should pay attention to the margins on a page, like Howe suggests, but also must acknowledge how knowledge only comes into being through the actions and agencies of bodies and materialities that, often, remain unmarked or hidden. History is filled with “(supposedly) insignificant actions, routine operations, and local, gestural, and silent knowledge” (2018, 13). We must look for the actions and agencies of “subalterns” that do not speak, but nonetheless are necessary for any possible statement of knowledge. This includes actual people—be they the servants that Krajewski follows, hidden from sight in a bourgeois country house, or the women only tentatively written into Shepard’s notebook—and it also includes the “servants” of media and technology, who record what is written but are not acknowledged as the agents needed for “writing” to even exist.

This chapter continues our task of theorizing the performativity of a medium, focusing on how a medium allows things to be written down—or, conversely, how a medium refuses to write something. A medium permits

the generation of *inscriptions*. As theorist Vilem Flusser tells us, “Writing comes from the Latin *scribere*, meaning ‘to scratch.’ And the Greek *graphein* means ‘to dig.’ Accordingly, writing was originally a gesture of digging into an object with something, so making use of a wedge-shaped tool (a stylus)” (2011, 11). Inscription refers to the material specificity of each medium and how that materiality permits us to “dig into” it so something can be written, organized, manipulated, and retrieved later. We scratch into a medium in specific ways, determined by the materiality of that medium.

Our understanding of “writing” in this chapter is broad—it includes everything from the scratches made on clay tablets to a pencil marking on paper, to light recorded on film, to the data points recorded by motion and performance capture. While these may not all be, properly speaking, scratches that come from physically digging into a medium, they are nonetheless forms of inscription, of writing something down, of enabling a kind of permanence that persists over time. Our concern here is not with the symbolic—at least not primarily. While these inscriptions may be symbols and may store “meaning” in some form or another, we are more interested in the fact that there are different physical qualities to different media, which have specific effects in producing relations, bodies, and knowledge itself.

In Chapter 3, we’ll be using terms derived from the medium theorist Harold Innis to discuss the temporal differences between media. Inscription is central for the temporality of a medium, as different kinds of inscriptions persist over different durations. But for now, we’re going to focus on the material use of a medium to record, and we’ll be using a number of terms more or less interchangeably—writing, inscription, and documentation—though inscription is our master term. Writing is a specific kind of inscription, and documentation is a specific practice that comes from the ability of a medium to inscribe. We will sort out these terms as we go along, though, because they are not synonyms.

Let’s frame things another way. Inscription refers to methods of recording data. “Data” is defined here through its roots as the plural of the Latin *datum*, something “given.”<sup>1</sup> An inscription records something “given,” that, through its inscription, can be “given” again later on. This need not refer merely to human experience. Inscriptions can be read and sensed by computers, beyond the awareness of human beings. As well, and central to our key idea of materiality as performative, we’ll be linking these inscriptions to

<sup>1</sup> As Rob Kitchin (2014) has argued, most forms of data today are not “given” but “taken,” making *capta* a better term as it stresses how our data are extracted from us, often against our will, often without our knowledge. We’ll still be using the word “data,” as *capta* is not a common term.

*technique*. Specific inscriptions exist at the level of the body through practices we internalize and perpetuate—*techniques* that we practice or techniques performed by a machine. As we learn how to move our bodies, use tools, and perform acts, we are “writing” into our bodies ways of experiencing and acting that perpetuate cultural differences, which are foundational for how we understand both who we are as individuals and our relations with others.

To introduce what inscription *does* and what it *performs* in its materiality, I want to appeal to another set of examples, drawing out the implications of inscription for issues of music and sound—examples chosen to demonstrate both the difficulties with and importance of “writing” that which is seemingly ephemeral and nonlinguistic. Words on a page are experienced as words on a page (Kittler 1990a, 7; cf. Rotman 2008). Sounds and vibrations are not experienced as marks on paper. And yet, we have many ways of writing sound. From this set of examples, we’ll then move to discuss inscription and documentation in the works of Karen Barad, Friedrich Kittler, and another theorist of media and writing, Maurizio Ferraris, and how their discussions of inscription and documentation relate to Michel Foucault’s theorization of discourse. The chapter then extends inscription to a broader discussion of technique, and reframes how we’ve been discussing writing, documentation, and inscription by turning toward (political) questions of cultural difference.

## Inscribing sound

British composer Cornelius Cardew’s score for his *Treatise* (1967) is comprised entirely of abstract shapes, lines, and forms that do away with traditional musical notation. *Treatise*, which is referred to as a “graphic score,” looks almost nothing like a typical piece of music. Instead, it is a guide for organized improvisation, though it is a guide still “written,” and the many different interpretations performed of Cardew’s score are considered performances of the same piece of music (see Dennis 1991; Anderson 2006). What does it mean that we have a score for a piece of music that sounds completely different each time it is performed? If we listen to two performances of *Treatise*, are we listening to the same piece of music? What does it mean to have a form of musical notation that cannot be “read” in any traditional sense?

Typically, a musician can “read” a musical score because they know what the different symbols on a score refer to. A score is a “language” of sorts, a set of formal rules agreed upon by all musicians who share the language of a score, which translates what is written on the page to what is performed by

the musician or a group of musicians. A score is not literally an inscription of sound but an approximation designed to reproduce a specific arrangement of sounds over and over again. There are similar systems for dance and motion (though not as standardized and common as those for music), in which the movements of bodies are translated into marks on paper, which can be “read” if a performer understands what the marks are supposed to represent (see Salazar Sutil 2015). The basic forms of musical notation, be it the lines of the staff, a bass or treble clef, dynamics, sharps and flats, combine to tell performers just what to play and how they should play it. However, this “writing” isn’t really a “translation” of music in any direct sense. As Kittler notes,

A medium is a medium is a medium. Therefore it cannot be translated. To transfer messages from one medium to another always involves reshaping them to conform to new standards and materials. . . . Transposition necessarily takes the place of translation. . . . Every transposition is to a degree arbitrary, a manipulation. It can appeal to nothing universal and must, therefore, leave gaps. (1990a, 265)

A score is, ideally, a kind of writing that permits the reproduction of sound. But writing is visual, not aural. There is a gap as (symbolic) writing moves to sound, and vice versa. The score for *Treatise* pushes this problem to its limits. The lines of a staff become circles and diagonals, notes are made into dots that appear almost randomly, and numbers—linked to time signatures in a typical score—seem to be littered randomly throughout. Performers are given no direct instructions, and the abstractions on the page are to be interpreted based on rules the performers have devised to “read” the score they have at hand. In creating *Treatise*, Cardew transforms the score into something that cannot reproduce the same—or nearly same—set of sounds again and again. Rather, he embraces the contingency that comes from refusing a standardized way of writing down music and expands the possibility for musical notation, linked to paper as it is, into something else. But, in doing so, the means for paper to store sound through symbolic reference is broken. The authority of the page in dictating sound is challenged as the symbolic link between the visual aspects of the written score and the aural elements of musical performance are reimagined.

The same cannot be said for other kinds of musical recordings. In 1857, the French printer and bookseller Édouard-Léon Scott de Martinville patented a “phonograph,” which used a stylus to literally inscribe sound waves onto blackened paper or glass, following a model of the human ear and how it senses aural vibrations. The phonograph’s etchings, called “phonograms,”

were never played back as sound until they were converted into digital files in 2008, using the etchings Scott's device had made to reproduce the sounds it transformed into written lines. A phonautogram, unlike a musical score, does not look like anything a musician can "read." Instead of a graphic approximation, Scott's phonautograph *transduces* sound—it converts one form of energy into something else. It writes sound through a machine that "hears" and writes what it hears—it doesn't approximate sound graphically through a set of symbols that a musician can interpret. But, at the same time, we cannot literally hear what has been written down by the phonautograph until it is converted back into an aural medium. Scott's invention is central to the entire history of sound recording, preceding similar technologies invented by Thomas Edison and Emile Berliner along with technologies that would lead to the telephone, all of which rely on converting the energy of sound waves into something else, be it literal inscriptions made through the vibrations of a stylus, converted back into sound by way of a speaker (as is the case for the phonograph and the gramophone) or into electrical energy (as with the telephone). The early means to do this were somewhat gruesome. Human bodies were employed to technologically approximate the human sense of hearing. Alexander Graham Bell, in 1874, was one of the inventors of the "ear phonautograph," which used "an excised human ear attached by thumbscrews to a wooden chassis," writing sound vibrations onto smoked glass (Sterne 2003, 31). The ear phonautograph is a direct predecessor of many technologies we use today. When we pick up a telephone or listen to a record, we are using technologies that descend from a device that used the ear of a corpse to transform sound into writing.

These examples introduce and extend different concepts that should be thought together, but not reduced to each other: inscription and *transduction*. As we've been suggesting, inscription refers to the specific capacities of a medium to write something down and store it. Transduction, as the historian of sound art Douglas Kahn notes, is the "movement from one energy state to another, either within or between larger classes of energy (mechanics or electromagnetism)" (2013, 7; cf. Mackenzie 2002).<sup>2</sup> In these examples, we've only had mechanical energy. The vibration of a sound wave vibrates a stylus, which mechanically makes a mark. All sound recording works in similar

<sup>2</sup> The distinction between mechanical energy and electromagnetic energy refers to a physical distinction between kinds of waves. Mechanical waves (like sound) require a medium to move energy from one place to another. If there were no air molecules, there would be no sound. If there were no water, there would be no waves crashing onto the beach. Or, mechanical waves cannot exist in a vacuum. Electromagnetic waves, in contrast, are produced by the vibration of charged particles and can exist in a vacuum. Examples of electromagnetic waves include light, radio waves, and microwave radiation.

ways, and often by transducing mechanical waves into electromagnetic energy, which can then be, say, transferred over the internet via a fiber-optic cables. Sound recording relies on the physical inscription of sound, which only happens through varied means of transducing sound into another state, from audible waves to the motion of a stylus that results in marks made in a medium.

With Cardew's *Treatise*, we have something documented in symbolic form. It's an inscription but not of sound. Instead, it emphasizes the role of print and paper as a support for graphical, visual forms of notation. What Cardew gives us is, at best, a symbolic approximation of sounds, not a literal etching of them. It's an inscription of the hand and eye—not the mouth and ear—as it moves on paper and is reproduced by a printing press. *Treatise* also questions some of the assumptions we make about traditional musical notation. Why do we assume there to be a direct link between the symbols on the page and the sounds we hear? Why not some other form of musical notation? What does writing sound in this way do?

The phonautograph, on the other hand, is a transduction of sound energy. It converts the physical waves that our ears perceive as sound into a means for placing sound into a medium, which we can then approach as another form of writing, though one only “legible” or “readable” in a different way than musical notation in a score. We can inspect this writing in different ways as sound is converted to writing and back again. With sound recording (along with other kinds of media, like film), we can engage in what Kittler refers to as “time-axis manipulation,” meaning we can then slow down sonic and visual information, speed it up, or reverse it—something that is physically impossible with symbolic writing, reliant on the alphabet or musical notation, and also physically impossible with sound outside of its recorded form (2017; Krämer 2006). Writing sound permits us to transform the temporality of experience in different ways. This refers not just to what human beings can experience and sense, but an entire epistemological transformation that comes from how specific data can be inscribed, broken apart, reversed, recombined, and analyzed.

I now want to expand on the implications of inscription and documentation as a capacity of media that is performative. There are three aspects of the performativity of materiality to which we'll now turn. In doing so, we'll conjoin claims of theorists Michel Foucault, Karen Barad, Friedrich Kittler, Maurizio Ferraris, and Bernhard Siegert to advance the model of performative materiality we've been elaborating thus far. The three aspects are (1) media as performing *history*, (2) media as performing *social relation*, and (3) media as performing *bodies*. These three aspects are linked and bleed into one other, but we'll focus on each in turn.

## History: Discourse and the archive

It is through the work of Michel Foucault, and how he defines *discourse* and *the archive*, that we begin to see a method for linking the materiality of media with how we experience the past in the present. In his *Archaeology of Knowledge* (1972), Foucault asks us to think of history not as a teleological unfolding of truth but as a series of relatively discontinuous moments that involve the creation and ordering of objects in *discourse*. It is this emphasis on discontinuity that begins to distinguish not only his method from traditional history but also his refusal to accept the existence of specific objects as “natural” or simply given. Rather, an object has to be produced, and it only persists over time because of work that maintains its existence. This includes kinds of bodies, kinds of mental disorders, kinds of medical practices, and so on. “Madness,” to use one of Foucault’s most well-known examples, is not an innate state, but comes from practices that specify and organize the human body and its capacities—and these practices of organization change radically over time (2006). “Madness” only exist as an object because of the tools, tests, and techniques used by psychologists and psychiatrists, the means they have for identifying and isolating specific bodily states, and the practices for confining specific bodies marked as “mad.” The diagnosis of mental pathology requires both a material means for examination—so, the tools used in a psychiatric or medical hospital, from photography to stethoscopes to an fMRI machine—and a set of categories through which bodies can be organized. Discourse would seem to refer to something linguistic or symbolic, but, following Foucault, it involves not just language, but the capacity to *see* something, to visualize it, or to make it sensible in other ways—a stethoscope, for instance, makes the body audible in ways previously impossible, and radically reframes how doctors sense the bodies of patients (see Sterne 2003, 99–136)—and to *say* something about what is seen. It requires techniques that incite speech—to make one *say* something that identifies who one is or what one does—and locate a body within larger structures through which it becomes an object of truth (Foucault 1978).

Foucault’s various studies are united in how they examine the emergence of specific conditions of *legibility*, which refers to how various concepts come to be understood as “true” and how bodies come to be ordered in relation to that truth. Power, for Foucault, is an immanent force that is structured according to these various technologies for seeing and saying, which organize the social field and the bodies within it. To say that power is immanent means that no one possesses more power than someone else, and there is no “higher power” that exists outside of material reality. Power

is “inside” all things. An assemblage of forces works together to direct and conduct bodies, forces that include technologies, inscriptions, practices, and so on. One of the functions of power is to produce, arrange, and group objects:

The conditions necessary for the appearance of an object of discourse, the historical conditions required if one is to “say anything” about it, and if several people are to say different things about it, the conditions necessary if it is to exist in relation to other objects, if it is to establish with them relations of resemblance, proximity, distance, difference, transformation—as we can see, these conditions are many and imposing. Which means that one cannot speak of anything at any time; it is not easy to say something new; it is not enough for us to open our eyes, to pay attention, or to be aware, for new objects suddenly to light up and emerge out of the ground. (1972, 44–45)

Discourse is, for Foucault, the capacity to say something about an object—which, in its being said, produces the object as a specific thing, groups objects, notes regularities and differences between objects, and stabilizes objects. This is both material and exists to organize materiality. Foucault notes that a book can be recognized as a series of equivalent books, as, “however many copies or editions are made of it, however many different substances it may use,” discourse defines each copy as equivalent. Yet these discursive regularities can be questioned, or have boundaries: “We know for example that, for literary historians, the edition of a book published with the agreement of the author does not have the same status as posthumous editions . . . that they are not one of the manifestations of one and the same whole” (102). Foucault acknowledges the importance of materiality but does not place it prior to the discursive. Instead, the ordering of objects and things comes from a link between the material and the discursive, from the means for seeing or experiencing something and from the linguistic or symbolic means for saying something about it that makes sense and can be interpreted and understood by others.

In terms derived from Karen Barad’s reading of Foucault, the material and the discursive are “intra-active” and the material is “always already material-discursive—that is *what it means to matter*” (2007, 153). For Barad, it is not so much that there are two things called “material” and “discourse.” They are not separate objects that “interact” and maintain their distinction, with one acting on the other. The two are distinct, but each fully interpenetrates the other while refusing to be reduced to the other. This is what Barad means by “intra-active.” Barad (and Foucault) complicates what we might

mean by “inscription” as well, because, as Barad claims, “nature is neither a passive surface awaiting the mark of culture nor the end product of cultural performances” (183). Instead, we have to attend to the distinctions (or “cuts”) we make (be they between matter and language or between nature and culture) because they only happen from inside the material reality of our world, leaving “marks” on bodies that produce them as distinct. Specific cuts are not, properly speaking, ontological. (As in, just because we may mark a distinction at a particular moment does not mean that there is a clear, permanent distinction between, say, nature and culture.) But they do make our world materialize in specific ways, at specific junctures. Inscription is a mark that defines something as distinct, while nonetheless located within a larger intra-active whole that is constantly in flux: “Intra-actions cut ‘things’ together and apart. Cuts are not enacted from the outside, nor are they ever enacted once and for all” (178–79). The categories we use to organize matter are not divorced from or on top of matter. Rather, they “write” or “inscribe” into matter from within, which serve to produce oppositions and differences through the “cuts” that organize and make sense of the world, which, in turn, locate, distribute, and police the location of specific bodies based on how they “matter.”

Media are one of the ways that this happens—not as an external determinant, but as a means that exists within and as a part of the world. One of the most important concepts in Foucault’s *Archaeology* is that of the *historical a priori*—the fact that anything said today must inherently rely on things said in the past to make sense or judged as true or false. History matters for Foucault because the way we have of organizing the present both relies on the past and is distinct from it. The material-discursive means for organizing the present are handed down from the past, but not as a simple, continuous form of development. It’s closer to a series of breaks, disjunctures, reversals, and reimaginings. This historical collection of statements is not literally a collection of all cultural texts that have been produced, but constitutes what Foucault terms an “archive”—a concept that emphasizes the contingency and partiality of the past in its material presence:

The archive is first the law of what can be said, the system that governs the appearance of statements as unique events. But the archive is also that which determines that all these things said do not accumulate endlessly in an amorphous mass, nor are they inscribed in an unbroken linearity, nor do they disappear at the mercy of chance external accidents; but they are grouped together in distinct figures, composed together in accordance with multiple relations, maintained or blurred in accordance with specific regularities; that which determines that

they do not withdraw at the same pace in time, but shine, as it were, like stars, some that seem close to us shining brightly from afar off, while others that are in fact close to us are already growing pale. The archive is not that which, despite its immediate escape, safeguards the event of the statement, and preserves, for future memories, its status as an escapee; it is that which, at the very root of the statement-event, and in that which embodies it, defines at the outset *the system of its enunciability*. (1972, 129)

The archive, then, is not a *collection* that stores, but a process for the selection of the past and a point for its erasure, a system that groups and orders the past in a way that materializes it in the present. The archive orders and maintains the very possibility of discourse—as what can be said requires a past that creates objects and things that we can speak of. This is why, to return to the beginning of this chapter, the existence of marginalia is so important for Susan Howe. What is written in the margin might be saved, or it might not. The practice of editing is about the archive, removing what may be thought insignificant from (and thus “inclosing”) the past. The ability to recognize marginalia as a “statement” (rather than a doodle or stray mark) is central to the performativity of the archive. But, Howe argues, marginalia are precisely where we find information inscribed about and by those who only materialize with difficulty, if at all.

It is with these conjoint concepts—the historical *a priori* and the archive—that we can begin to focus on the performativity of media’s materiality and how it relates to history and memory. One of the most significant extensions of Foucault on this point is Friedrich Kittler’s understanding of the archive as a function of technological inscription. As Kittler notes, speaking of Foucault, “all power emanates from and returns to archives,” though, Kittler claims, Foucault neglected that “writing itself, before it ends up in libraries, is a communication medium” (1999, 5; Tuschling 2016). Kittler’s reframing of the archive as technological is furthered by the media archaeologist Wolfgang Ernst: “The function of archives exceeds by far mere storage and conservation of data. Instead of just collecting passively, archives actively define what is at all achievable, insofar as they determine as well what is allowed to be forgotten” (2013, 139). The tools we use to write actively shape history, and, by extension, determine what can be said and remembered in the present through their selection of what can be stored or not. Media *act* by serving as the means for writing down and closing off “history” as it becomes stored. Media, through their inscriptive capacities, are archival in the sense of Foucault, in that they provide the means for writing statements and perpetuating their legibility.

The practices of the archive are furthered by tools and techniques to organize information. Libraries, for instance, rely on an elaborate system of storage, reference, and recall, found in technologies like index cards, filing cabinets, and databases (see Krajewski 2011), which produce a range of specific practices for ordering information. Vertical filing cabinets, to use another, similar example, were a new technology in the first decades of the twentieth century. If you're familiar with filing cabinets at all, you're probably familiar with vertical files—as opposed to horizontal filing, where paper is laid flat in piles. Vertical files were a material technology that organized paper in specific ways, and also led to specific jobs for people that could expertly file and retrieve information within filing cabinets (along with the training for these jobs). As Craig Robertson, an historian of media and paperwork, argues, the fact that paper can be held, sorted, and ordered led to a specific way of managing information that stressed manual dexterity of particular hands and fingers—which were often women's hands, as well:

A file clerk's hands became central to the representation and teaching of filing. The fact that these hands tended to belong to women is important to understanding how gender as an organizational category was used to articulate filing to the specialization and feminization of work that restructured the office in the early twentieth century. This mode of information work increased the importance of procedure in the modern office while also giving greater emphasis to manual dexterity—a “skill” which proponents believed women naturally possessed. (2017, 959)

I want to use Robertson's arguments about vertical filing to draw out what we mean by inscription and the archive, along with the performative materiality of a filing cabinet. What matters here is not that a filing cabinet “determines,” in and of itself, specific forms of knowledge and specific practices. Rather, following Barad, it is “intra-active” as a discrete object embedded within a much larger ecology of relations linked with each other. It is this ecology that produces the world and how we exist within it.

For the German media theorist Cornelia Vismann (2008), files provide the material basis for law and are the precondition for administration or judgment of truth, the grounds for the state to be that which determines and administers truth, and likewise produce a subject who exists as someone that possesses legal rights and abilities under the law. So, let's open up the example of the filing cabinet—a technology that seems so banal, but is central to the majority of material practices that have produced the modern subject and the modern state. The filing cabinet is a material thing designed to store and organize paper. Paper is itself a technology with material qualities that enable

kinds of inscription. (And, for that matter, paper has a relation to the “natural” ecology of the planet—meaning it’s made of pulped wood.) The material qualities of paper are seen with bureaucratic forms designed to document specific qualities. Paper forms are discursive objects. Checkboxes on forms delimit and force kinds of inscriptions that shape how bodies and practices are known to others and institutionally recognized; forms help define the archive. So, the fact that many forms only include boxes for “male” or “female” genders has long defined how gender is inscribed and determined in relation to, say, health care, voting, or other institutional practices. The organization of a census, for instance, determines how a population is known, and, as a result, how funds are allocated by governments, how political representation is distributed, and so on. These practices relate to what theorist Allucquère Rosanne Stone (1995, 41) refers to as the “legible body,” the “body” produced by legal, medical, and psychological practices of writing and documentation, and how these practices determine what a body is and does through what can be written about that body in institutional forms. The inclusion of other kinds of responses on a form can expand or reinvent the categories acknowledged, performed, and recognized institutionally. The fact that many forms now enable one to check “other” for their gender, or to select multiple races rather than one, changes how gender and race are acknowledged by institutional structures through how these categories are inscribed on paper. Practices of filing shape how these documents are then grouped, evaluated, and cross-referenced. A file has a specific spatiality and temporality and only includes that which can be filed (so, that which can be vertically filed, rather than, say, awkwardly shaped objects, liquid samples, or other things). That is, until a different kind of filing system is created. Various technological proposals that preceded the internet, shaping how it has been imagined, like Vannevar Bush’s “memex” or Ted Nelson’s “Project Xanadu,” were designed to enable researchers, scientists, and bureaucrats to cross-reference documents in ways that, today, precede the hypertext links that characterize the World Wide Web, marking a break between how filing cabinets and digital archives (best seen in the form of the relational database) organize data.

Additionally, the physical form of a filing cabinet shapes practices and how practices are taught. People had to learn to use a filing cabinet to efficiently store and retrieve information, practices that, with enough rehearsal, would be performed without thought. As Robertson highlights, these practices were not evenly distributed—beliefs about gender and the abilities of specific bodies resulted in how these technologies were used and how their use was taught. The filing cabinet materialized gender in particular ways, which was a result of other beliefs about women’s bodies and their manual skill in using their hands.

## Social relation: Documentality

Our discussion of filing cabinets and forms leads away from how inscriptions act historically and toward how inscriptions produce social relations. While things like forms demonstrate a relation to history—what gets written on a form is what gets remembered; what a medium can record is what endures—inscriptions likewise perform social relations in the present. Who acts? Whose bodies are recorded? How? Who is trained to use a technology? All of these things relate to how the Italian philosopher Maurizio Ferraris theorizes “social objects” as the product of inscription and documentation, providing a robust theoretical perspective that revises the concerns of Foucault, among others, in a range of ways. While a number of his books have been translated into English, Ferraris has been mostly ignored in Anglophone countries aside from his proposed turn to “new realism,” which occurred far earlier than many other theorists advocating for new kinds of realism today (see Ferraris 2014a, 2015). What I present here only examines a small part of Ferraris’s overall theory, and we’ll return to some of his arguments about realism later on in this book. For now, I want to review what Ferraris means by “documentality,” and how inscription and documentation are essential tasks for performing and maintaining social relation.

Ferraris argues that there are three kinds of objects in the world. First, there are *natural objects*, which exist regardless of humans. Natural objects “occupy positions in space and time and do not depend on subjects” (2013, 33). We can think of natural objects as best represented by things like dirt, forests, minerals, and so on, as these things would exist even without the name we use to describe them. Second, there are *ideal objects*, which, while distinct and individual, exist outside of space and time, and are also distinct from a thinking subject that knows or identifies their existence. The final kind of object, and the one most important for us here, is the *social object*: “Object = Inscribed Act . . . *unlike natural and ideal objects, social objects exist only insofar as at least two human beings are thinking about them*” (43). These objects are not simply thoughts, though they may be documented nowhere but in the minds of two individuals. As Ferraris suggests, “Social objects are made of *inscriptions*, impressed on paper, on some magnetic medium, or even only (for instance, in the promises we make to each other every day) in people’s heads” (1).

Let’s elaborate what Ferraris means by social objects using one of his own examples: mobile phones (2014b). Ferraris argues that phones are *not* devices for communication, but devices for inscription and documentation. They are not channels we use to talk with others, even though this is how media

like phones are often imagined (and used). Rather, phones are technologies for writing and can only be understood by emphasizing how a phone is composed by and produces inscriptions.

This shapes the corporate and economic structure of telecommunications companies, which are bound up with the ownership and management of material infrastructures. Various mobile phone conglomerates merge or get renamed regularly. While the name of these companies refers to who owns a particular set of infrastructures (i.e., phones themselves, wires, cables, relays, etc.), they cannot be reduced to their infrastructures. Infrastructures keep changing over time, and the companies themselves constantly mutate. Their “identity consists in signatures and documents, which is to say in inscribed acts” (171). Or, of another mobile company, Vodafone, he asks,

So *where is* the being of Vodafone? The answer is easier than expected: in the SIM card, quite apart from its support; in acts deposited in court, quite apart from their support; and in shares, quite apart from their support. All these are so many kinds of inscription and signature: the code deposited on the SIM card is in essence a signature, which establishes a conceptual unity between a bit in a bank’s computer, a genetic code, and a trace of ink on paper. (172)

The phone, again, is not a medium for communication, but a medium for writing and documenting. It is less about the movement of spoken words from one place to another, but the creation of a mobile device with a particular “address,” linked with specific accounts and bodies, which are linked with a corporate body that exists thanks to legal and economic documents that constantly perform its existence. The device inscribes and creates an object through various means of documenting who one is and where one is located.

But why would the phone itself be a medium of inscription, rather than a medium of communication? Given the popularity of true crime entertainment, many of us are aware of how mobile phones are used in trials to document where someone is at a particular time. The popular podcast *Serial*, for instance, spent a significant amount of time reconstructing the evidence used in a murder trial, much of it related to records that documented approximately where a call with a mobile phone was made. The mobile phone provides a means for documenting specific acts, along with their time and location. The methods a phone uses to document location means it is writing, which, for Ferraris, produces social objects. Now, we should not dismiss communication completely—we should just

claim that any act of communication is likewise an act of documentation, of writing.

In defining social objects, Ferraris revises Jacques Derrida's famous aphorism, "*il n'y a pas de hors-texte*," which is often incorrectly translated as "there is nothing outside of the text," when it actually should be translated as "there is no outside-text" (Derrida 1997, 158). Derrida doesn't mean that there's nothing but language and that all reality is ultimately linguistic (or textual), even though that's what this statement is often thought to mean. Derrida was quite fond of puns, and *hors-texte*, in French, refers to an unnumbered page in a book. At a strictly literal level, Derrida is claiming that unnumbered pages are never "outside" of a book, as they still exist "in" the book itself. Or, another variation of this claim would begin with the French word for "outlaw," *hors-la-loi*. So, while an outlaw may be "outside the law," if we take its translation literally, an outlaw is only defined by its relation to the law. Derrida's famous phrase implies that an "outside" is only defined as outside by its relation to the "inside." It does not exist alone—it can only exist in relation, which comes from how Western philosophy has often made its claims through binary oppositions and the dialectic (see Wood 2016). The distinction of "inside" and "outside" can only happen from the inside—which means that "outside" is always a relation produced by assuming the truth of the "inside." (This claim is similar to Barad's argument that cuts only happen from the inside.) Ferraris accepts, in a way, both Derrida's actual argument and his critics' misreading. He changes Derrida's famous quip to "there is nothing *social* outside the text" (2013, 121). While there is a world outside of language and documentation, social relations are about the ways we document our world collectively. Ferraris wants to argue that there is a world outside of language and signification—it's just that any form of social relation requires inscription to maintain its existence.

I find many of Ferraris's suggestions useful, yet there are a few issues that we should revise. While he acknowledges the importance of a medium, Ferraris positions it secondary to the act of inscription, which, he suggests, isn't intrinsically linked to the materiality of a medium. Social objects, he argues, "consist of a medium and an inscription; but the predominant role is played by the inscription, given the way that (as we see with money or a document), for a given documental value, the medium can be metal, paper, plastic, or silicon" (2013, 33). The value of money can be inscribed through a wide range of media, and thus, for Ferraris, it is the inscription (of value, of number) that really matters. Of course, we can easily see how different monetary media (be it paper currency, credit, or Bitcoin) can radically reshape the social relations implicit in monetary exchange. Our discussion of

inscription, thus, complicates Ferraris's distinction, but it's still worth noting that the medium and the inscription are separate, if inherently linked.

This distinction leads us to how Ferraris defines the existence of a document, which also serves to distinguish the three terms we've used in this chapter in roughly interchangeable ways: inscription, writing, and document. I quote Ferraris here at some length:

Language reveals the link between documents and inscriptions. Once upon a time, a degree was called *a piece of paper*, and in technical contexts, *document* and *writing* (or *writ*) are often equivalent, in such a way that "my papers" means "my documents," which are the things that were once kept in the drawers of a desk. Thus, a document is of necessity a material *res*, even if the realm of documents is not restricted to paper, given that biometrical data and photographs can count as documents in the narrow sense [as legal evidence of identity], and sound recordings, films, and videos as well as DNA can count as documents in the broad sense [as evidence in general]. In the overwhelming majority of these realizations, we can pick out the structure of documentality; first, there is the physical medium; then there is the inscription, which is by its nature smaller than the medium and defines its social value; and last there is something idiomatic, such as a signature or one of its variants, such as a coded digital signature, an electronic signature, the code for the ATM, or a PIN for the cell phone, each of which, in descending order, guarantees authenticity. (250–51)

A document is, following its etymology, something that "shows or represents some fact" (249). It is evidentiary, and, in its material existence as evidence, performs a social relation and maintains that relation over time. It does this by virtue of having a physical presence in a medium, containing a specific inscription, which can be socially regarded as true or authentic.

Again, while Ferraris notes that all inscriptions must be made in a medium, he is dismissive of the material specificity of a medium. My argument would be, following our discussion of the archive, that the medium matters insofar as it determines precisely what can be inscribed, and thus shapes how an inscription can become evidence, and the means by which it can be verified.<sup>3</sup> The three levels identified by Ferraris are not hierarchical, as he claims. Rather, all three are co-constitutive—they are intra-active. The kinds of

<sup>3</sup> This is similar to how Cornelia Vismann (2008) describes the relation between documents, files, and the law.

inscriptions made depend on the medium in which they are inscribed. The verification of an inscription, again, depends on the medium and the kind of inscription. For digital media, we cannot rely on the existence of an image to assume its truth, but rely on metadata and other techniques that are part of how the medium inscribes. All three of these elements of a document are conjoined.

It is the combination of these three levels that define what Ferraris means by “documentality,” a riff on a key term of Foucault’s: “governmentality.” Let’s explain what governmentality is, first. Governmentality consists of three intertwined elements. First, it refers to “the ensemble formed by institutions, procedures, analyses and reflections, calculations, and tactics” that creates a specific thing called “government.” “Government” uses statistical measurements of population as a means to evaluate the bodies in a specific territory; it uses political economy to calculate the value of a population and its labor; it uses technologies of security to manage and regulate who enters and who leaves the boundaries of a territory. Second, governmentality refers to the rise of a specific mode of power, of “government,” as a means to control and manage citizens, which relies both on specific technologies and tools, as well as a set of knowledgeable practices designed to properly manage citizens. And third, governmentality refers to how the state and its administration of justice becomes less about sovereign power to make die or let live, but about the administration of bureaucracy that, as Foucault elsewhere argues, lets die and makes live (2007, 108–09). No longer confined to specific geographic boundaries, “government” is about a set of flexible and evolving techniques for managing a population.

Governmentality makes most sense when contrasted with some of Foucault’s earlier ways of describing power and sovereign authority. “For a long time,” Foucault notes in the first volume of his *History of Sexuality*, “one of the characteristic privileges of sovereign power was the right to decide life and death” (1978, 135). Or, part of the authority of a king or queen was the ability to sentence to death those they ruled, killing without consequence. This kind of power wasn’t limited to royalty. It probably emerged, Foucault suggests, from the Roman law of *patria potestas* that granted a father the right to kill his children and slaves, “just as he had given them life, so he could take it away,” a power that was eventually limited and diminished in a number of ways (135). This kind of power, Foucault notes, is the power to *take* life or *let* live.

This is no longer how power and authority function today. Rather, Foucault states, “One might say that the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death” (138). This is what Foucault refers to with the term “biopower.” Instead of killing

specific people, authority—in the material form of governmental bodies and agencies, often through statistical analyses of population—*cultivates* forms of life and bodily practices, or, conversely, it *lets* them die. This “letting die” happens in prisons, where people are sentenced to life in jail, through mental hospitals, where those judged insane by psychiatry and psychology live out the remainder of their lives, or when the homeless are left to die on the streets. These individuals are either confined to “foster” the well-being of the rest of the population or are never integrated into the social in ways that permit their lives to flourish. Biopower is about the cultivation and calculation of the value of human life, in which a hierarchy is produced through this logic of who is allowed to live, and who is left to die. Jean Baudrillard, in his book *Symbolic Exchange and Death*, which was published in France the same year as the first volume of the *History of Sexuality*, argues that this relation is foundational for capitalism and labor. “Whoever works *has not been put to death*. . . . And labour is first of all the sign of being judged worthy only of life. . . . Power is therefore never, contrary to what we might imagine, the power of putting to death, but exactly the opposite, that of allowing to live” (2017, 61). It’s this relation that is central for biopolitical calculations that judge and order bodies. Whose bodies are most productive? Who is allowed to live, and therefore allowed to work?

Ferraris argues that documentality is the basis of governmentality. The varied techniques Foucault mentions, be they calculations of population reliant on a census, or immigration controls that depend on passports, or economic calculation of GDP, are all forms of documentation, in which an inscription locates and identifies an individual based on how they are written by systems of power (2013, 271). We should take Ferraris and Foucault together. Power is about the management of the body, of fostering specific actions and behaviors, locating specific bodies in specific places, within larger populations. This only happens through means of documentation, which exist because of inscriptions into a specific medium, inscriptions that, thanks to new technologies and the invention of new means to document and inscribe, transform the potentials of government and the control over bodies in different ways. Now, while Foucault uses the word “government,” the specific “government” of governmentality should not be equated to the state. I’ve elsewhere argued (Bollmer 2016b) that social media should be considered to be a primary form of government today, one that manages and controls beyond the government proper. Many others have argued that, within the context of neoliberalism, the means of government have shifted to NGOs and corporations that exist beyond the level of the state (cf. Brown 2015; Ong 2006). Ferraris gives us one way to acknowledge how this happens. Who controls inscriptions? Who manages documents? Who uses them?

How are they used? Foucault also draws our attention in another direction. Documentation and government are about the coordination, management, and conduct of *bodies*. Our last move here is to note that materiality is performative because its inscriptions document bodies. In their materiality, they teach bodies how to act, how to move, and how to live. They do this through the fostering of *technique*, which serves as a means for documenting and registering cultural difference in the most basic habits and practices performed daily.

### Bodies: The performance of technique

What I mean by technique and how it relates to the body (and how technique should be thought of as a kind of inscription) is influenced by the anthropologist Marcel Mauss and how he once defined various “body techniques.” In the course of his years of ethnographic research, Mauss became “well aware that walking or swimming, for example, and all sorts of things of the same type are specific to determinate societies; that the Polynesians do not swim as we [French citizens] do, that my generation did not swim as the present generation does” (1992, 455). Each society, Mauss tells us, has its own habits, seen in practices of walking, cooking, dancing, moving, and living. Mauss uses the term “habitus” to describe these many combined practices, stressing that this does not suggest these acts are merely ingrained habits, or acquired, learned abilities. These techniques are not merely ways we mirror and identify with the others around us. Rather, they mark the very ways that social differences are written into bodies and performed daily. They mark differences in age, differences in class, and differences in culture. They exist as “practical reason” (458) and become visible in movement (a kind of walking or running), in speech (an accent), or any other practice one might engage in.

The body is, in a sense, a technology for inscription. We write into it specific practices that become the “habits” we perform daily, habits that perform our “habitus,” practices that we inhabit and enable us to become legible to others. But, at the same time, the body does not exist alone. In conjunction with the physical objects that exist around us, the body is trained to perform specific functions, to move in specific ways. The architectural historian Sigfried Giedion, in his monumental work *Mechanization Takes Command* (1948), examined how specific technologies gradually transformed and standardized the ways human bodies eat, move, and rest in America and Europe. Machines, in industrializing meat slaughter and the baking of bread, remade human bodies and the human senses—urban spaces

smelled differently given the odor of meat slaughter in cities like Cincinnati and Chicago. Machines were developed to perform kneading of bread, creating loaves that were mass produced and standardized, sliced uniformly and bleached. Practices of sitting and bathing were reinvented with chairs designed to cultivate specific postures, and baths that were designed for speed and the movement of water. Different technologies, in their physical form, create vastly different practices that, as *habitus*, shape how bodies live and differentiate “cultures.” As we learn to use and navigate our world, our bodies are being made into a means through which we “know” and act (without thinking) a range of practices that are neither universal nor natural, practices that—with the mechanization of food, for instance—involve the most fundamental biological faculties of bodies in digestion. Or, practices—with hygiene and relaxation—that shape how bodies sit, lie down, and clean themselves, which mark specific differences with social norms of appearance, comfort, and scent.

A loaf of bread may not seem particularly notable, but the ways that bread is made is very clearly related to cultural difference. Contrast the seemingly artificial, spongy, mass-produced “white” bread with roti, lavash, naan, baguettes, focaccia, bagels, cornbread, pita, or many other kinds of bread. Each of these breads are made according to specific practices and methods of baking that bring together flour, yeast, and other ingredients, reliant on techniques that are often difficult to learn and master, baked in accordance with environmental concerns like temperature and humidity. Some have very specific spiritual or cultural associations and different tastes and textures. The standardization of bread in the creation of white bread, for instance, is historically and culturally particular, and involves a complete reorganization of the daily life of those involved in bread making and bread consumption.

The creation of bread involves many practices that aren’t merely about “doing,” but are about how a body is located in relation to other bodies. These practices are foundational for how “culture” matters. As Giedion tells us,

The kneading of dough is a strenuous activity, consisting at once of pulling, pushing, and beating. It was performed by hand and, for large quantities of dough, with the feet as well. With the advent of industrialization, the end of the guilds, and the expansion of cities, there arose a demand for machine kneading. The mechanical kneader can produce more quickly and more hygienically. (1948, 169)

You may know how to knead and bake bread. But the vast majority of bread you consume you most likely did not make because baking bread is difficult and takes a lot of time. Even if you do make your own bread, you probably

do not use the same techniques as people have done throughout much of history, instead using quick-rise yeast, or flour formulated for specific kinds of dough. Most likely, the bread you eat was made by a machine. These technologies have a long history, going back to the Romans, who used rotating kneaders, and experiments from the late Renaissance. One machine, the Castilian *braga*, which was a large roller that was attached to a ceiling, swung back and forth over large boards of bread. This machine created bread that was, as observed in a 1778 book Giedion cites, “whiter than that kneaded by hand; its crust is not crisp but extremely delicate and not too elastic” (170). Over time, these techniques changed in numerous ways, further changing the physical qualities of bread, in accordance with the various technologies that were used. In some places, because mechanized bread would not rise properly, gas was added to artificially inflate bread. Because the rising of bread from yeast was often volatile (or too slow for mass production), practices of inflating bread using gas (rather than the fermentation of yeast) caused bread to smell differently. Chemicals were added to bread that would cause it to rise differently.

The point here is not that some bread is more natural than others. Rather, even something as mundane as a loaf of bread is the result of specific historical and technological changes that exist materially. A spongy loaf of white bread is the product of over a hundred years of experimenting with technology to mass produce food. A loaf of white bread is an inscription of a number of technical, scientific, and cultural practices that originate in specific places at specific times. The mechanization of bread, for instance, began in Europe, but is mostly a product of the United States. The existence of white bread globally requires the exportation of technologies and practices that emerged in the United States to create bread cheaply, so that one loaf of bread would be functionally identical to another. This is a way of thinking not only of how inscriptions exist in the most basic aspects of daily life but also of how the globalization of a specific kind of bread could even be thought to be “imperialist” since it requires an entire technological apparatus and the education of bodies to use and work with these technologies.

Bernhard Siegert uses the term “cultural techniques” to refer to some of these practices (2015). For Siegert, any sense of a “human being,” or any sense of a specific culture, is produced through specific practices and techniques that differentiate a “human” or a culture from something else. Siegert notes five aspects that he uses to define cultural techniques:

1. Cultural techniques are practices that generate concepts. Singing, counting, painting, reading, baking, and so on, all originated as practices, and the concepts we use to discuss these practices followed the material

ways these practices have been performed in the past. So, the ways we talk about bread only happen because of how we eventually describe the practices that have been devised to make bread. Language comes after practice—though the two, today, cannot be separated.

2. There is no singular thing called “culture.” There are only plural cultures. ~~This does not defer to multiculturalism, or to any sense of a single “human culture.”~~ There are many cultures that emerge from differences in specific practices and techniques. This is similar to Mauss and his discussion of how cultural difference is performed through different ways of walking, swimming, speaking, and so on.
3. Cultural techniques perform symbolic work. This is one of the reasons I’m including these habits as a kind of inscription. Different techniques, while they may not be linguistic, nonetheless mark specific symbolic distinctions, be they between nature and culture (as, for instance, plowing can be understood, as “cultivating” or “culturing” the soil), or between inside and outside (a distinction a door performs, for instance).
4. “Every culture begins with the introduction of distinctions” (14). The practices of cultural techniques are about difference and distinction. They mark oppositions that are found in specific practices.
5. “Cultural techniques are not only media that sustain codes. . . . They also destabilize cultural codes, erase signs, and deterritorialize sounds and images” (15). Practices are subject to change, are performed incorrectly, or, given the fact that we all have different bodies, may be performed differently given the anatomical differences between different people. This means that they are subject to change, while they also sustain the practices of “culture.” New technologies invented to change practices (like machines for baking bread) likewise reorient our practices and remake the thing we call “culture.”

If not “writing,” these practices should be thought of as a way of “inscribing” culture in bodies. The practices we perform are essential for marking cultural difference in ways that are not about meaning at all, but about habits and movements that we often perform without thought.

## Conclusion

This chapter theorized inscription in a number of different ways. Attention to inscription, in its materiality, provides a different way of thinking about history that begins with the facticity of a technology making a mark in a

medium. It provides a way of looking at the past differently, one that attends to marginalia in order to allow different histories to materialize. Beyond history, inscription provides a different way of thinking of social relations, and in turning to technique, we highlighted how inscription exists as the basis for the most banal daily practices we engage in. The body, after all, is a medium, and it too can store information. This also provides a different way of thinking about the politics of cultural difference—differences between cultures are not just about worldviews, but about material practices. To understand the politics of difference, then, is to think about how materiality is performative, and how different practices produce bodies in relation. It is to examine which bodies materialize and which are obliterated.

The reason this remains important is because each medium has a different relation to space and time. Some inscriptions are fleeting, while others last for millennia. Some media move quickly but are fragile and are easily lost or destroyed. Some are heavy and endure over time but cannot move very easily. We now turn to questions of *spatiotemporal materialism*, and how these different relations to space and time shape the material politics of media.