## Documents and Bureaucracy\*

#### Matthew S. Hull

Department of Anthropology, University of Michigan, Ann Arbor, Michigan 48109; email: hullm@umich.edu

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#### **Keywords**

materiality, organizations, state, writing, evidence, representation

#### Abstract

This review surveys anthropological and other social research on bureaucratic documents. The fundamental insight of this literature is that documents are not simply instruments of bureaucratic organizations, but rather are constitutive of bureaucratic rules, ideologies, knowledge, practices, subjectivities, objects, outcomes, even the organizations themselves. It explores the reasons why documents have been late to come under ethnographic scrutiny and the implications for our theoretical understandings of organizations and methods for studying them. The review argues for the great value of the study of paper-mediated documentation to the study of electronic forms, but it also highlights the risk of an exclusive focus on paper, making anthropology marginal to the study of core bureaucratic practices in the manner of earlier anthropology.

#### INTRODUCTION

Most social science accounts of bureaucracy have emphasized administrative organization, discourse, norms, rules, and informal behavior. The centrality of writing to formal organizations has been recognized in Western social thought since at least the mid-eighteenthcentury, when the French political economist Jean Claude Marie Vincent de Gournay coined the derisive term "bureaucracy," rule by writing desk. Writing and documents have long been of interest within sociology studies of formal organization (Harper 1998, pp. 13-47). But Ben Kafka's (2009) observation regarding historians is equally true of anthropologists: Until recently, they have "discovered all sorts of interesting and important things looking through paperwork, but seldom paused to look at it" (p. 341, emphasis in original).

Bureaucratic documents have not received much attention from anthropologists for a few reasons. First, the traditional social science division of labor left formal organizations to sociologists, political scientists, and economists (Pletsch 1981) while anthropologists concentrated on nonmodern, small-scale societies that were seen to operate without or independent of formal organizations. Lévi-Strauss's (1973 [1955]) account of his encounter with the Nambikwara chief, whom he had given paper and pencil, captures a conventional anthropological view of the salience of writing in such societies. The chief made a "list" of wavy lines and pretended to read from it and inventory the objects the anthropologist was to exchange. For Lévi-Strauss (1973[1955], p. 296), this "farce" dramatized writing as an alien form, a form the chief could use to show "he was in alliance with the white man and shared his secrets." Grappling with the anthropology of civilizations and colonialism, some anthropologists began addressing the role of documents in village and tribal life as early as the 1950s (Cohn 1987, Fallers 1950), but ethnographies have usually focused on those affected by bureaucracies rather than what goes on in the office (Bernstein & Mertz 2011, Hoag 2010).

Second, when anthropologists turned to the investigation of formal organizations in the 1920s and 1930s, they brought with them the analytic tools and empirical emphases developed through the study of lineages, clans, age sets, chiefs, and big men. W. Lloyd Warner, as a student of Radcliffe-Brown, contributed to the extension of ethnographic methods to industrial organizations and the discovery of "informal relations" (such as friendships, enmities, and ad hoc work arrangements) in the famous Hawthorne Western Electric Study in the 1920s and 1930s (Schwartzman 1993). This anthropological emphasis on everyday activities within structures of rules and formal roles continued, and as late as 1980, Britan & Cohen (1980) saw the task of an anthropology of organizations as laying bare the informal structures of bureaucracy. In the 1980s, ritual, informal relations, and more recent concerns as gender, anomalous classification (Haines 1990), attitudes (Herzfeld 1992), storytelling and meetings (Schwartzman 1989), and cultural ideologies specific to particular organizations or to bureaucratic order in general (Handelman 1981, Sampson 1983) were bundled together within the concept of "organizational culture" (Schwartzman 1993, Wright 1994). Documents have received little attention because they are the main mechanism and dominant emblem of the formal dimension of bureaucracy.

Third bureaucratic records, which Bruno Latour (1990, p. 54) has called "the most despised of ethnographic objects," have often been overlooked as a problem in their own right because anthropologists produce and use documents in much the way their subjects of study do (Riles 2006b, p. 79). The problem today is not that the natives' writing is out of place and farcical, but rather that it is often too like our own. To Britan & Cohen (1980, p. 23) organizational records looked like ethnographic notes in the raw: "Unlike traditional field subjects, formal organizations generate large quantities of written records-logs, calendars, memos, minutes, plans, reports.... This record is the observer's

basic account of social life in the organization. Its analysis and comparison with other documentary records and interviews about organizational activity provide the basis for an ethnographic depiction." Documents and "their consequences remain, in large part because of their very ordinariness, analytically invisible" (Brenneis 2006, p. 42).

Finally, documents have also been overlooked because it is easy to see them as simply giving immediate access to what they document. The denial of the mediating role of documents, the "politics of immediation" (Mazzarella 2006), is a tactic of power and authority, with dematerialized views of textual mediation underwriting claims of transparency (Silverstein & Urban 1996). However, the invisibility of documents is also a phenomenological quality of mediators more generally. There is a "tendency of media to disappear in the act of mediation...to redirect attention to what is being mediated" (Eisenlohr 2011, p. 44). To restore analytically the visibility of documents, to look at rather than through them, is to treat them as mediators, things that "transform, translate, distort, and modify the meaning or the elements they are supposed to carry" (Latour 2005, p. 39). Just as discourse has long been recognized as a dense mediator between subjects and the world, newer anthropological scholarship on bureaucratic documents treats them not as neutral purveyors of discourse, but as mediators that shape the significance of the signs inscribed on them and their relations with the objects they refer to.

Anthropologists are skeptical when questions of evidence are concerned, highlighting the mediations that saturate the production of facts. Recent scholarship has shown how bureaucratic documents are produced, used, and experienced through procedures, techniques, aesthetics, ideologies, cooperation, negotiation, and contestation. But this skepticism collides not only with classic accounts of documentation (e.g., Blau 1955, Crozier 1967, Weber 1978), but also with the understanding of many bureaucrats. Many producers of documents,

much like scientists (Hoag 2011), claim to represent or engage with autonomous entities, realities "in the world" independent from the processes through which they are produced. Suzanne Briet (2006, p. 10), a pioneering theorist of documents, in answer to the question "What is documentation?" argued that a document must have been "preserved or recorded toward the ends of representing, of reconstituting, or of proving a physical or intellectual phenomenon." So it is not surprising that one of the main themes running through the anthropological work on bureaucratic documents is to what extent or in what way is the efficacy of bureaucratic texts due to their capacity to represent, to stand for something else. How are documents, as Brian Cantwell Smith (1996) puts it, "about or oriented toward some other entity, structure, or patch of the world" (p. 13, emphasis in original).

This article reviews the scholarly emphasis on two complementary problems in the "ethnography of documents" (Harper 1998): administrative control and the construction of subjects, objects, and socialities. The review does not attempt to define what a document is (Buckland 1997, Frohmann 2009) or distinguish bureaucratic from nonbureaucratic documents. Rather, it discusses the role of artifacts that anthropologists and other users of them take to be documents in processes they take to be bureaucratic. The fundamental insight of this literature is that documents are not simply instruments of bureaucratic organizations, but rather are constitutive of bureaucratic rules, ideologies, knowledge, practices, subjectivities, objects, outcomes, and even the organizations themselves. A central theme in this literature is materiality. As part of a general rehabilitation of artifacts in the social sciences and humanities, bureaucratic "texts" have regained their materiality. Bureaucratic discourses are no longer understood as semiotic constructions ("texts") abstracted or abstractable from their material vehicles—files, forms, reports, graphs, and so forth. The works under consideration explore the relations among materiality and technology, genres and forms, as well as practices.

#### **BEYOND REPRESENTATION**

Rendering bureaucratic documents into ethnographic objects by exoticizing them is commonly criticized (see Riles 2000, Sampson 1983). Nevertheless, in much of the work on documents, there is a familiar anthropological emphasis on the unfamiliar, on the aspects of documents that are less prominent in Euro-American institutions. The ethnographic epiphany that documents are something different from or more than what they say is common in this literature (Garfinkel 1967, Hetherington 2008, Hull 2012, Reed 2006, Riles 1998). In particular, many works downplay the salience of "content" (Brenneis 2006, Elyachar 2006, Li 2009), facts (Hull 2003, Maurer 2005), knowledge (Boyer 2003, Strathern 2006), information (Garfinkel 1967, Hetherington 2008, Reed 2006), "semantics" (Reed 2006), "purposeful expression" (Pellegram 1998, p. 103), and "meaning" (Riles 1998). These terms are not all coincident, but the basic point is to analyze documents as something other than or more than instruments of "representation" conceptualized in terms of denotation and reference (Lyons 1995). This argument is implicit in the very characterization of bureaucratic forms of documentation as "documents" rather than as "texts" or "representations" to be interpreted (Riles 1998). The move away from representation is partly motivated by a recognition that this dimension of bureaucratic documents has been well addressed by earlier work on discourse, oriented by Foucault, that focused on how representations construct their objects (Cohn 1987, Escobar 1994, Ferguson 1994, Malkki 1995, Mitchell 2002, Scott 1998). But it is also an effort to avoid approaching documents through what Woolard (1998, p. 13) describes as "a tendency to see reference or propositionality as the essence of language" within European language communities and especially bureaucratic arenas (Brenneis 2006, Guillory 2004). Anthropologists have become even more suspicious of this view of language as it has been taken up in contemporary "transparency programs" (Mazzarella 2006; Strathern 2000a,b, 2006).

Most accounts replace the focus on representation with a concentration on genre, material qualities, and sociotechnical processes of production and circulation. New approaches to materiality and sociotechnical process (Appadurai 1986, Gell 1998, Henare et al. 2006, Latour 1999, Miller 1987, 2005; Strathern 1999) have opened the space to explore the socially consequential role of documents as something other than "fetishes," objects misrecognized as powerful (but see Gordillo 2006). Goody (1986) was the first anthropologist to address comprehensively the role of writing in relation to organizations. His argument that this "mode of communication" played a determinative role in shaping the structure and functioning of organizations has been widely challenged. More relevant here is that by approaching bureaucratic writing from within the orality/literacy framework (Ong 1982), he concentrated on the material characteristics of written texts that distinguish them from speech, especially physical perdurance. Outside of his orality/literacy problematic, newer work explores a broader range of document qualities in relation to the discourses and other social actions they mediate: the paper quality (Komito 2009, Pellegram 1998), typefaces (Jacob 2007), mode of inscription (Cody 2009, Hull 2003), organization of graphic space (Brenneis 2006, Riles 2000), physical composition and compilation (Feldman 2008, Hull 2012, Komito 2009), and non- or paralinguistic signs such as brackets (Riles 2006b), bullet points (Jacob 2007, Strathern 2006), signatures (Cody 2009), stamps (Hetherington 2008), and letterheads (Sharma & Gupta 2006).

Within this consensus on the centrality of materiality, we can distinguish three different approaches to how humans encounter documents that emphasize aesthetics, affect or emotion, or signs. In some empirical accounts, one or another of these approaches is predominant or even exclusive; in other work, they are combined. All these approaches are variously used to address the problems of administrative

control and the construction of entities, which I discuss in the next two sections.

The aesthetics approach emphasizes the role of bundles of document features, including rubrics of classification and graphic elements such as paragraphs, tables, subtitles, fonts, margins, and bullets. Riles (1998, 2000) drew on Bateson's (1980, p. 8) characterization of the aesthetic as responsiveness to "the pattern which connects" and Strathern's (1991, p. 10) as the "the persuasiveness of form, the elicitation of a sense of appropriateness." Riles argued that negotiators at a United Nations conference measured success not by getting the document to convey what they wanted or even any sort of "transparent meaning," but by satisfying "the aesthetics of logic and language" (1998, p. 386), the appropriate "nonrepresentational patterning" (2000, p. 78). Others have extended this aesthetic approach to a range of other kinds of documents such as reports on microentrepreneurs (Elyachar 2006), informed consent forms (Jacob 2007), and prisoner intake forms (Reed 2006). The aesthetic forms of bureaucratic documents are seen as "self-contextualizing" and "self-analyzing," and therefore describable without resorting to contextualizing moves (Latour 1999, pp. 91-92), that is, without placing them in relation to social settings and institutional goals outside the documents themselves (Reed 2006, Riles 2000). This emphasis on the form of documents converges with basic characterizations of bureaucracy as sociality organized by form (Handelman 1981).

If the aesthetics approach highlights the way users of documents respond to their patterns, other authors characterize how people encounter documents in terms of affect or emotion. Weber (1978, p. 975) argued that "[b]ureaucracy develops more perfectly, the more it is 'dehumanized,' the more completely it succeeds in eliminating from official business love, hatred, and all purely personal, irrational, and emotion elements." Taking this as the bureaucratic standard, Fuglerud (2004) found bureaucracy working very well in the Norwegian immigration agency that minimizes the "emo-

tional element" of bureaucracy by focusing on the "case" as materialized in folders of documents rather than in a "person or an individual life story" (p. 36). But documents themselves can provoke anxieties in bureaucrats required to write on controversial matters (Hull 2003) or when the limits of their categories become apparent to them (Stoler 2009).

But most of the work addressing affect is about the people who are documented or undocumented, rather than those who do the documenting. Navaro-Yashin (2007, p. 95) is interested in "documents' messy and excessive potentialities, the multiple and contingent affects which they engender in their holders and transactors" within different legal regimes and social situations, including fear and panic, insecurity, nervousness, and tentativeness (see also Das & Poole 2004a,b; Kelly 2006). The subjects of documents themselves also attempt to provoke affects such as shame or pity in the addressees of their documents by contravening the conventions of emotionally evacuated bureaucratic discourse (Cody 2009, Hull 2012).

If the aesthetics approach concentrates on form, and if attention to affect draws analysis to moments of encounter with documents, the problem for work oriented to signs is the way documents link to people, places, things, times, norms, and forms of sociality. Authors taking this broad approach do not methodically eschew engagement with the denotation of documents, emphasizing the interplay between form and content (Brenneis 2006) and cautioning us against reifying a form/content distinction (Feldman 2008, p. 47). However, analysis usually focuses on indexical and (nondenotational) symbolic relations. Sometimes there is an implied economy of denotational and indexical significance, such that authors foreclose the salience of the denotation of a document to clear the way for other readings. Sharma & Gupta (2006, p. 12), for example, argued that the importance of "observing the correct bureaucratic rule" is evidenced by the divergence of documentation from the reality it purports to represent, as in their example of a supervisor accusing a subordinate of cheating because the subordinate irregularly documented a meeting the supervisor must have known the subordinate actually attended.

Many analyses in this approach draw on Keane's (2003) insights on the relation of material form and meaning. Work on documents that draws on linguistic anthropology takes an interest in the different semiotic modalities of documents (e.g., Brenneis 2006, Cody 2009). Such work does not treat the discourse genres (Bakhtin 1986), scripts, paralinguistic signs (such as brackets and underlining), graphic organization, and physical composition of a document as a coherent, overall configuration (e.g., a "pattern"); rather these elements are analyzed as individual signs. Hetherington (2008), for example, highlighted how signatures and stamps on Paraguayan land documents index social networks. Other analyses show how these individual signs (such as discourse and graphic form) can combine in varying, sometimes dissonant ways within particular documents, producing, for example, ambiguous political subjects, part supplicant, part citizen (Cody 2009, Hull 2012). The significance and social role of documents are seen to depend on an interpretive tradition (Messick 1993), a semiotic ideology (Brenneis 2006, Cody 2009, Feldman 2008), and the history of a particular genre (Shannon 2007, West 2003). Relations among different genres ["genre systems" (Yates et al. 1997; also Hetherington 2009)] and the physical organization of documents (Feldman 2008) are also central as documents jostle, translate, and contradict one another on heterogeneous institutional terrains.

All these approaches are used to explore two broad capacities of documents, to which we now turn: administrative control and the construction of subjects, objects, and socialities.

#### COORDINATION AND CONTROL

In scholarship on bureaucracy, the document has remained the very image of formal organizational practice, the central semiotic technology for the coordination and control of organizations and the terrains on which they operate. But views on precisely how documents play this role and the degree to which documents contribute to organizational order vary. Views of the nature of organizations are very closely linked to a view of documents (Harper 1998, p. 34). Weber is the touchstone for these questions. The following passage by Weber is so frequently quoted partly because he said little more on the subject:

The management of the modern office is based upon written documents (the 'files'), which are preserved in their original or draught form. There is, therefore, a staff of subaltern officials and scribes of all sorts. The body of officials actively engaged in a 'public' office, along with the respective apparatus of material implements and the files, makes up a bureau. (Weber 1978, p. 957)

Weber (1978, p. 225) argued "[b]ureaucratic administration means fundamentally domination through knowledge." He viewed documents as instruments for materializing reference and predication in order to establish and communicate a stable relation between discourse and individuals, actions, objects, and environments. Writing establishes the stable relation between words and things necessary for bureaucracies effectively to implement regimes of control. The organization and circulation of written materials are conceptualized as isomorphic with formally structured social organization and interaction. This portrayal follows the instrumental orientation of practitioners of bureaucracy. Weber was well schooled in the administrative sciences (Polizeywissenschaften) that developed in early-nineteenth-century German universities to train government functionaries.

In his almost casual mixing of people, technical instruments, place, and documents, Weber sounds almost Latourian in the passage above. But Weber saw files as the expression of norms. Consider how he explained that bureaucratic institutions often remain stable despite, perhaps even especially, through changes of regime. He

identified the "system of files" as one source of this stability, but he made the sociological argument that it was mainly the effect of norms inculcated in bureaucratic functionaries (Weber 1978, p. 988). Weber rejected the view of the anarchist Mikhail Bakunin that the French Revolution ultimately failed because it focused on eliminating people rather than records. Weber (1978, p. 988, emphasis in original) dismissed this "naïve idea of Bakuninism" because it "overlooks that the settled orientation of *man* for observing accustomed rules and regulations will survive independently of the documents."

Goody (1977, p. 11; also 1986) took Weber to task precisely for his emphasis on the "ideological" and Durkheim for attempting to establish a category of "social" facts over against material or technological ones, prefiguring current debates about the category of the social (Hacking 1999). Yates's (1989) groundbreaking study of the role of communication within large American business organizations shows "writing" to be the abstraction it is by describing how new technologies (typewriters, stencil duplicators, vertical files) and written genres (orders, reports, memoranda, all with distinctive languages, graphic organizations, and physical qualities) differed in their capacities and roles in the administration of a new scale of organization. However, in the Weberian tradition, she, like Goody, unduly emphasizes the use of writing as an instrument of organizational control through the storage and transmission of information.

Documents promote control within organizations and beyond not only through their links to the entities they document but through the coordination of perspectives and activities. Harper's (1998) seminal ethnography of document use in the International Monetary Fund showed that documents "reiterate and substantiate the organisation of the institution" (p. 111). But they accomplish this less as vehicles of information than as "tools in the construction of fixed and shared meaning" (Harper 1998, p. 43) as they make their "careers" in organizational activities. Focused on

work process, including a "country mission" he found that documents "enable members of an organization to coalesce into 'loosely coupled' alliances" (Harper 1998, p. 33) that make up organizations. Riles (2000) argues that the aesthetic forms of documents, rather than their "meanings," can play the same coordinating role.

While such accounts of the centrality of documents to work process have a lot to do with more flexible contemporary organizations, even in the more rigidly structured bureaucracies of the nineteenth-century British Empire, positions within an organizational division were defined in relation to genres of papers. Rules prescribed what genres officers and staff of different ranks could read, draft, and write as well as the means of inscription they were authorized to use (Feldman 2008, Hull 2012). Office manuals distributed influence within the office and articulated a paperwork ethics through the specification of the care and duties owed to different genres of documents. The procedures for exchanging documents between organizational divisions were a technique of social analysis (Strathern 1999) that defined relations among divisions, and even constituted them as different divisions. Within contemporary institutional review board processes, relations with documents divide faculty who deliberate on protocols from functionaries who document that work (Bosk 2007).

We should, however, be cautious about assuming too close a fit between documentary practices and organizational order. Situating documents entirely within the dynamics of administrative control is an example of a tendency "to excessively sociologize transaction in things" (Appadurai 1986, p. 5). Like other artifacts, documents can generate patterns of relations that are not isomorphic with forms of sociality generated through other processes (Latour 1999, Miller 1987). The licensing efforts of one government division can generate conflict with other divisions, such as the police when they earn a living on bribes (Anjaria 2011, Bear 2011). The "pretensions to a unified system of knowledge control" (Boyer 2003, p. 529) can be undermined by contradictory instructions, and the sheer volume of required documents may practically transform documentary regulations into sources of official ignorance (Mathews 2008). Different governmental authorities produce documents targeting the same domain with documents uncommensurated by common concepts and metrics (Hull 2008); competing documentation, for example, of lands on the border between towns (Verdery 1994, 2003), generates uncertainties regarding property ownership and the permissibility of activities.

Even within a single organizational division, the irregular routing of documents can undermine rather than reinforce formal organization by reorganizing effective participation in decision making (Hull 2003). Bureaucracies also exercise their control through the uncertainty, ambiguity, and fear created by leaving people and things undocumented (Mathews 2008, Ticktin 2006) or by routinely disputing the validity of documents (Kelly 2006).

A methodological focus on documents (rather than sociologically defined organizations) helps us ethnographically address a classic problem in social theory, how to characterize the boundaries of organizations. This general problem in the anthropology of organizations has been precisely formulated in relation to the state (Abrams 1988). Mitchell (1999, pp. 184, 188) argued that the distinction between state and society "is a defining characteristic of the modern political order," even though "the edges of the state are uncertain; societal elements seem to penetrate it on all sides, and the resulting boundary between state and society is difficult to determine." The "apparent boundary" between state and society is produced by Foucauldian "disciplines," practices of "spatial organization, temporal arrangement, functional specification, supervision and surveillance, and representation" (Mitchell 1999, pp. 176, 185). As an effect of such practices, the line between state and society is not the perimeter of a separate entity, but "a line drawn internally, within the network of institutional mechanisms through which a certain social and political order is maintained" (Mitchell 1999, p. 175).

Discourses about bureaucratic corruption often portray the actions of low-level officials as "thoroughly blurring the boundaries between 'state' and 'civil society'" (Gupta 1995, p. 384). But rather than focusing on the blurring of a boundary between two independently constituted domains, the scholarship on documents follows some of the practices that make, remake, and undermine the difference between the actions of the state and all others (Sharma & Gupta 2006, p. 17). As Das (2004, p. 245) observed, because the state can be "multiplied, literalized through court papers, certificates, and forged documents, it can enter the life of the community" (also Tarlo 2003). Attention to the associations emerging through the production and circulation of documents can help us understand the contested processes that go back and forth between the inside and the outside of offices (Oppenheim 2008). The material and discursive aspects of bureaucratic representations provide different handles for interventions in the bureaucratic arena. Disadvantaged petty traders and service people sometimes oppose the legal discourse that prohibits their activities even as they embrace the documents it generates (Anjaria 2011, Bear 2011). The agents and tactics that engage with bureaucratic discourses (such as narratives, laws, and classification schemes) can be very different from those engaged with the artifactual vehicles of those discourses (Elyachar 2006, Hull 2008). The production and movement of documents can also create document brokers (Cody 2009) and influential roles for politicians (Anand 2011). Institutions traditionally operating outside the state arena can also be transformed because they mimic state documents to legitimate customary practices (Das 2004, pp. 230-34; Navaro-Yashin 2007). However, the fluidity of this documentary traffic should not be exaggerated. Poor and uneducated people unable to master the conventions of bureaucratic documentation (Cody 2009) or recruit for themselves a capable agent remain excluded even from

programs aimed to help them (Sharma & Gupta 2006).<sup>1</sup>

In the "epistemic murk" (Bubandt 2009, p. 556) that often characterizes bureaucratic arenas, the truth or falsity, authenticity or inauthenticity, is often not what determines their effects. Forged documents can lay the foundation for authentic ones and create tangles of legal conflict that are irresolvable (Holston 1991, Hull 2008, Tarlo 2003, Verdery 2003). The truth or falsity of documentary claims can be beside the point for individuals (Kelly 2006) and for bureaucrats aiming to produce particular outcomes (Tarlo 2001, 2003). Documents can serve as grounds for official actions even when they are shown to be false because their falseness might suggest that they are backed by powerful unknown interests. Their very inauthenticity may make them effective by identifying them with the power of a state that normally operates through many inauthentic documents, for instance, driver's licenses, exam papers, or custom stamps (Bubandt 2009). Documents can also be effective precisely because they are not used to produce the kind of factual certainty emphasized by Weber and Foucault. Street (2011) describes practices of "not-knowing" among doctors in a Papua New Guinean hospital who use medical charts not to diagnose the precise disease of a patient but to record the patient's general condition to keep open a range of possibilities for treatment. New due diligence requirements have slowed offshore incorporation not through documents that accurately identify the incorporators, but through ones that demonstrate that reasonable steps were made "ethically to warrant a regulated person's identity" (Maurer 2005).

#### CONSTRUCTION

Closely related to the question of coordination and control is the generative capacity of bureaucratic documents, their capacity "to make things come into being" (Frohmann 2008, p. 1573). Recent scholarship has show how documents are essential elements of the constitution of a vast variety of entities, for example, disease (Bowker & Star 1999, Mol 2002), place (Feldman 2008, Oppenheim 2008), property (Hetherington 2009), technologies (Latour 1996), and infrastructures (Anand 2011). However, anthropological attention has been focused on the role of documents in the construction of subjects and forms of sociality.

In some cases the generative capacity of documents is tightly integrated with regimes of control in ways highlighted by Foucault, especially in relation to individual subjects. "Form-made persons" (Jacob 2007) are an element of most bureaucratic processes. Insane or reasonable persons are produced and diverted into regimes of rehabilitation or punishment through the ritualistic production of intake documents (Rhodes 2004; but see Reed 2006). Haitians subject to political violence are made into "viktims" and inserted into the governance of international aid agencies through the production and circulation of "trauma portfolios" (James 2004). Immigrants in France claim citizenship through documents placing illness at the center of their identity (Ticktin 2006). The constructive capacities of discourse have long been recognized, but what difference to processes of construction does it make when discourse and other activities are mediated by documents? Discursive logics, concepts, norms, and social relationships can account for classification schemes, the criteria for bureaucratic determinations of what sort of person or thing fits within them. But documents are what mediate between these schemes of classification and particular people, places, and things, constructing this person as a viktim or this house as an encroachment—or even this as a house (Hull 2008). Documents are central to how bureaucratic objects are enacted in practice (Callon 2002, Mol 2002).

Of course, people are more than the instrumental objects of bureaucratic process. It is precisely the dissonance, uncertainties, and

<sup>&</sup>lt;sup>1</sup>Gupta (2012), not available when the final version of this article was submitted, promises to be a major contribution to our understanding of the role of bureaucratic documentation in generating and sustaining inequality.

practical problems generated by the separation between documentary persons and other aspects of personhood that "produce particular types of subjects" (Kelly 2006, p. 92; Brenneis 1994, Yngvesson & Coutin 2006). In some cases, however, this "doubling of subjectivity" (Kelly 2006) renders documents as objects to be manipulated for political or economic advantage (Elyachar 2006).

Bureaucratic documents are also sometimes diverted to purposes far removed from the administrative rationales that produced them. The dry records of neonatal "medical cases" are used to construct the biographies of children and sustain the sentiments and commitment of families (Heimer 2006). Prisoners of an Indonesian prison divine, in the aesthetic patterns of intake documents, presages of the events of incarceration (Reed 2006). Contemporary Anglo-Indians seek in colonial railway files the "intimate stories of family genealogies" in order to define family origins and status (Bear 2007).

Documents also help generate larger-scale forms of sociality-from organizations to states—not only directly as instruments of control but also as vehicles of imagination. The auditing of organizations brings into being a presumptive ethical subject, a "society" (Strathern 2005) to pass judgment on management. Like other forms of material culture, such as uniforms, cars, and official buildings, documents are central to "how the state comes to be imagined, encountered, and reimagined by the population" (Sharma & Gupta 2006, p. 12) and, thereby, to the reproduction of states (Das 2004, Hansen & Stepputat 2001, Lund 2001, Messick 1993, Poole 2004, Sharma & Gupta 2006). The state exists not simply as a bureaucracy of regulation, but also "as a spectral presence materialized in documents" (Das 2004, pp. 250-51; Hansen & Stepputat 2001). State artifacts, like documents, are "iterable" or "citable" (Das 2004), susceptible to forgery and mimicry that extend the state into domains of life properly bureaucratic practices could never access, such as the governance of caste groups and marriage. Although official water or electricity bills that document residence might be essential for making claims in the papered-over world of permitted illegality, they also index the state as a particular kind of entity.

As with individuals, dissonance also occurs within collectivities documentarily reconstituted: The fluid affiliations of caste are reified in census documents (Cohn 1987); New Guinea descendant groups struggle with their reconstitution through "incorporated land group" forms; even formal organizations are transformed through contests with the documentary forms of auditors (Strathern 2005). But collectives, as part of political and economic strategies, sometimes embrace the bureaucratic documentation to the point of producing it themselves (Collins 2011) to exploit its divergence from other ways of defining the community.

### ELEMENTARY FORMS OF THE DOCUMENTARY LIFE

Attention to documents among anthropologists has increased in the past couple of decades with the growth of institutional ethnography that productively goes beyond "the informal and interstitial in bureaucratic life" (Heyman 2004, p. 489). But it is no coincidence that anthropologists and others have come to be interested in documents at what many observers see as the end of the paper era. As Danet (1997, p. 7) observed (see also, e.g., Chartier 1995, Levy 2001), our "encounter with the disembodied world of computer-mediated communication...startles us into recognizing the importance of the text-as-physical-object in literate culture" as well as many other features of the documents whose most consequential material is paper. An ironic consequence of the electronic inspiration for the study of documents is that paper as a material has received much more attention than has silicon (though see Harper 1998, Komito 2009, Mazzarella 2010). There are some good reasons for this concentration on paper. Electronic technologies in Euro-American countries have increased rather than decreased the proliferation of paper documents (Sellen & Harper 2002) while transforming their uses. Documentary practices in poorer organizations that many anthropologists study are still often, if not low tech, then, perhaps, broken tech (West 2003, p. 95). However, by not giving greater attention to the interplay between paper documents and the design, circulation, and code infrastructure of electronic documents, we risk confining ourselves to the documentary equivalent of village life, isolating paper documents from electronically mediated documentary processes making different scales.

It is unclear if databases, for example, are documents (Buckland 1997), but they are certainly forms of documentation that demand greater attention in the anthropological investigation of bureaucracy. In the name of transparency, the International Monetary Fund, the World Bank, states, multinational corporations, and nongovernmental organizations are encouraging projects to "transfer" paper records into putatively more accessible and accurate electronic forms all around the world (Hetherington 2008). Rural Indian property owners in many areas have to negotiate electronic property registry databases to produce paper tax and transfer documents, and the translation of records from paper to electronic form can fundamentally alter or even eliminate property forms dependent on particular papermedia documentary infrastructures (Benjamin et al. 2007; Hull 2012). When a new electronic land registration system was introduced in the Indian state of Karnataka, the more than 1,500 forms of land tenure constituted by five customary systems for land holding were reduced to 256 (Benjamin et al. 2007), presumably so the type of holding could be indexed by one byte of data, which can contain numbers from 0 to 255. Across the border, the adoption of databases in Pakistani bureaucracies has been vigorously opposed by bureaucrats invested in a political economy of paper (Hull 2012).

Electronic documentary forms have received far greater attention in sociology, but these studies usually lack ethnography or are confined to the boundaries of an organization or network. Although databases, as part of the infrastructure of everyday life (Bowker &

Star 1999), are harder to see, they call out for ethnography perhaps even more than do paper records. Manovich (2001, p. 225) argued that the "database represents the world as a list of items and it refuses to order this list." This is an overstatement, but the narratives embedded in databases are usually much thinner that that provided by the sparest paper-based forms. In relation to databases, Bowker (2005) argued that the "question is not what the state 'knows' about a particular individual, say, but what it can should the need ever arise" (p. 30, emphasis in original). Older forms of comprehensive record systems were also built "to police the possible" (Feldman 2008, p. 47), but narratives built from databases are more radically post hoc reconstructions (Bowker 2005, p. 30). So the effects of databases can be understood only through ethnographic study of practices carried out in relation to them. Anthropologists have yet to produce an ethnography of a database.

All that said, the insights we have gained from attention to paper-mediated documents have much to offer to the study of electronic forms. After all, adapting Geertz's aphorism, anthropologists do not study paper villages; they study in them. The relation between electronic forms of communication and studies of paper is not only historiographic, but also historical and theoretical. Historically, new communications technologies have supplemented and transformed, rather than replaced, older ones, and paper documents are no exception (Sellen & Harper 2002). Electronic forms of representation build historically on aesthetics, discourse genres, means of distribution, concepts of authorship and ownership, etc., that were developed through the media of paper. An obvious example is the "electronic signature." Email templates are based on paper memo headings (Orlikowski & Yates 1994, p. 572). The National Science Foundation modeled its new electronic system for handling grant proposals and their associated documents on the "jackets" that contained them in the old paper days-and called the system eJacket (Ahearn 2011). Riles (2006b, p. 6) observed that the debate about the impact of the information revolution on the law "revolves around the question of whether, and under what circumstances, an electronic communication is 'like' a paper document" in uses such as forming a contract or recording a deed.

Theoretically, an understanding of papermediated documentation can help us recognize the genuine novelty and the continuity of electronic technologies, both of which are sometimes obscured by ahistorical rhetoric of technological revolution. Contemporary databases may "pull people apart along multiple dimensions" (Bowker 2005, p. 30; also Rabinow 1996). But this work was started in early-twentieth-century American hospitals by new patient record forms that began to isolate different aspects of the person and fragment the narrative of a patient's travails that was encouraged by the blank writing space of earlier records (Howell 1995, pp. 42-48; see also Messick 1993). What the more flexible materiality of electronic databases can do much better is "reconfigure the information at will" (Bowker 2005, p. 30). But this loosening of the

connection between documents and particular localized bits of matter, misleadingly often characterized as "dematerialization" in the case of electronic documents, can be seen even within the paper-based British tradition of bureaucratic practice with the shift from unique serial note sheets to memos as instruments of decision-making (Hull 2012).

The list is both the oldest form of written record (Goody 1977) and the foundation for the most advanced form of documentation. Vismann argued that Lévi-Strauss missed the point about the Nambikwara chief's use of the list. The chief's wavy lines did not have any denotation; nevertheless, his list "governs the transfers of objects." As Vismann (2008, p. 6) put it, "Lists do not communicate; they control transfer operations." Whether in a Nambikwara village or an electronic land registry in Bangalore, a list serves the same basic function. This is indeed a good reason for an anthropology of documentary forms that keeps its simplest and most complex documents within the same analytic framework.

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#### LITERATURE CITED

Abrams P. 1988. Notes on the difficulty of studying the state. J. Hist. Sociol. 1(1):58-89

Ahearn L. 2011. Comment on "Language as material object and practice: questions of fidelity, trust, and value." Am. Anthropol. Assoc. Annu. Meet., Nov. 19, Montreal.

Anand N. 2011. Pressure: the politechnics of water supply. Cult. Anthropol. 26(4):542-64

Anjaria JS. 2011. Ordinary states: everyday corruption and the politics of space in Mumbai. Am. Ethnol. 38(1):58–72

Appadurai A. 1986. Introduction: commodities and the politics of value. In The Social Life of Things, ed. A Appadurai, pp. 3–63. Cambridge, UK: Cambridge Univ. Press

Bakhtin M. 1986. Speech Genres, and Other Late Essays, ed. C Emerson, M Holquist. Transl. VW McGee. Austin: Univ. Tex. Press

Bateson G. 1980. Mind and Nature: A Necessary Unity. London: Fontana

- Bear L. 2007. Lines of the Nation: Indian Railway Workers, Bureaucracy, and the Intimate Historical Self. New York: Columbia Univ. Press
- Bear L. 2011. Making a river of gold: speculative state planning, informality, and neoliberal governance on the Hooghly. *Focaal* 61:46–60
- Bell J. 2009. Documenting discontent: struggles for recognition in the Purari Delta of Papua New Guinea. Aust. 7. Anthropol. 20:28–47
- Benjamin S, Bhuvaneswari R, Rajan P. 2007. Bhoomi: 'E-governance', or, an anti-politics machine necessary to globalize Bangalore? Work. Pap., Collab. Adv. Stud. Urban. Through Mixed Media. http://casumm.files.wordpress.com/2008/09/bhoomi-e-governance.pdf
- Bernstein A, Mertz E. 2011. Introduction: bureaucracy: ethnography of the state in everyday life. Polit. Leg. Anthropol. Rev. 34(1):6–10
- Blau P. 1955. Dynamics of Bureaucracy. Chicago: Univ. Chicago Press
- Bosk C. 2007. The new bureaucracies of virtue or when form fails to follow function. *Polit. Leg. Anthropol. Rev.* 30(2):192–209
- Bowker GC. 2005. Memory Practices in the Sciences. Cambridge, MA: MIT Press
- Bowker GC, Star SL. 1999. Sorting Things Out: Classification and Its Consequences. Cambridge, MA: MIT Press
- Boyer D. 2003. Censorship as a vocation: the institutions, practices, and cultural logic of media control in the German democratic republic. *Comp. Stud. Soc. Hist.* 45:511–45
- Brenneis D. 1994. Discourse and discipline at the National Research Council: a bureaucratic Bildungsroman. Cult. Anthropol. 9:23–36
- Brenneis D. 2006. Reforming promise. See Riles 2006a, pp. 41–70
- Briet S. 2006 [1951]. What Is Documentation? Transl./ed. RE Day, L Martinet, HGB Anghelescu. Lanham, MD: Scarecrow
- Britan GM, Cohen R, eds. 1980. *Hierarchy and Society: Anthropological Perspectives on Bureaucracy*. Philadelphia: Inst. Study Hum. Iss.
- Bubandt N. 2009. From the enemy's point of view: violence, empathy, and ethnography of fakes. Cult. Anthropol. 24(3):553–88
- Buckland MK. 1997. What is a document? 7. Am. Soc. Inform. Sci. 48:804-9
- Callon M. 2002. Writing and (re)writing devices as tools for managing complexity. In Complexities: Social Studies of Knowledge Practices, ed. J Law, A Mol, pp. 191–217. Durham, NC: Duke Univ. Press
- Chartier R. 1995. Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer. Philadelphia: Univ. Penn. Press
- Cody F. 2009. Inscribing subjects to citizenship: literary activisim, and the performativity of signature in rural India. Cult. Anthropol. 24(3):347–80
- Cohn B. 1987. An Anthropologist among the Historians, and Other Essays. New York: Oxford Univ. Press
- Collins J. 2011. Melted gold and national bodies: the hermeneutics of depth and the value of history in Brazilian racial politics. *Am. Ethnol.* 38(4):683–700
- Crozier M. 1967. The Bureaucratic Phenomenon. Chicago: Univ. Chicago Press
- Danet B. 1997. Books, letters, documents: the changing aesthetics of texts in late print culture. *J. Mater. Cult.* 2(1) 5–38
- Das V. 2004. The signature of the State: the paradox of illegibility. See Das & Poole 2004a, pp. 225–52
- Das V, Poole D, eds. 2004a. Anthropology in the Margins of the State. Santa Fe, NM: Sch. Am. Res.
- Das V, Poole D. 2004b. State and its margins: comparative ethnographies. See Das & Poole 2004a, pp. 3–33
- Eisenlohr P. 2011. Anthropology of media and the question of ethnic and religious pluralism. Soc. Anthropol. 19(1):40–55
- Elyachar J. 2006. Best practices: research, finance, and NGOs in Cairo. Am. Ethnol. 33(3):413-26
- Escobar A. 1994. Encountering Development: The Making and Unmaking of the Third World. Princeton, NJ: Princeton Univ. Press
- Fallers L. 1950. Bantu Bureaucracy: A Century of Political Evolution among the Basoga of Uganda. Chicago: Univ. Chicago Press

- Feldman I. 2008. Governing Gaza: Bureaucracy, Authority, and the Work of Rule, 1917–1967. Durham, NC: Duke Univ. Press
- Ferguson J. 1994. The Anti-Politics Machine: Development, Depoliticization, and Bureaucratic Power in Lesotho. Minneapolis: Univ. Minn. Press
- Frohmann B. 2008. Documentary ethics, ontology, and politics. Arch. Sci. 8(3):291-303
- Frohmann B. 2009. Revisiting "what is a document?" J. Doc. 65(2):291-303
- Fuglerud O. 2004. Constructing exclusion. The micro-sociology of an immigration department. *Soc. Anthropol.* 12(1):25–40
- Garfinkel H. 1967. Studies in Ethnomethodology. Englewood Cliffs, NJ: Prentice-Hall
- Gell A. 1998. Art and Agency: An Anthropological Theory. Oxford: Clarendon
- Goffman A. 1959. The Presentation of Self in Everyday Life. Garden City, NY: Doubleday
- Goody J. 1977. The Domestication of the Savage Mind. Cambridge, UK: Cambridge Univ. Press
- Goody J. 1986. The Logic of Writing and the Organization of Society. Cambridge, UK: Cambridge Univ. Press
- Gordillo G. 2006. The crucible of citizenship: ID-paper fetishism in the Argentinean Chaco. Am. Ethnol. 33(2):162–76
- Guillory J. 2004. The memo and modernity. Crit. Inq. (31):108–32
- Gupta A. 1995. Blurred boundaries: the discourse of corruption, the culture of politics, and the imagined state. Am. Ethnol. 22(2):375–402
- Gupta A. 2012. Red Tape: Bureaucracy, Structural Violence, and Poverty in India. Durham, NC: Duke Univ. Press Hacking I. 1999. The Social Construction of What? Cambridge, MA: Harvard Univ. Press
- Haines DW. 1990. Conformity in the face of ambiguity: a bureaucratic dilemma. Semiotica 78(3/4):249–69
- Handelman D. 1981. Introduction: The idea of bureaucratic organization. Soc. Anal. 9:5-23
- Hansen TB, Stepputat F. 2001. Introduction: states of imagination. In *States of Imagination: Ethnographic Explorations of the Post-Colonial State*. Durham, NC: Duke Univ. Press
- Harper R. 1998. Inside the IMF: An Ethnography of Documents, Technology and Organisational Action. New York: Academic
- Heimer CA. 2006. Conceiving children: how documents support case versus biographical analysis. See Riles 2006a, pp. 95–127
- Henare A, Holbraad M, Wastell S. 2006. Thinking Through Things: Theorising Artefacts Ethnographically. London: Routledge
- Herzfeld M. 1992. The Social Production of Indifference: Exploring the Symbolic Roots of Western Bureaucracy. New York: Berg
- Hetherington K. 2008. Populist transparency: the documentation of reality in rural Paraguay. J. Leg. Anthropol. 1(1):45–69
- Hetherington K. 2009. Privatizing the private in rural Paraguay: precarious lots and the materiality of rights. *Am. Ethnol.* 36(2):224–41
- Heyman JMcC. 2004. The anthropology of power-wielding bureaucracies. Hum. Organ. 63(4):487–500
- Hoag C. 2010. Assembling partial perspectives: thoughts on the anthropology of bureaucracy. Polit. Leg. Anthropol. Rev. 34(1):81–94
- Hoag C. 2011. The magic of the populace: an ethnography of illegibility in the South African immigration bureaucracy. Polit. Leg. Anthropol. Rev. 33(1):6–25
- Holston J. 1991. The misrule of law: land and usurpation in Brazil. Comp. Stud. Soc. History 33:695-725
- Howell J. 1995. Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century. Baltimore, MD: Johns Hopkins Press
- Hull M. 2003. The file: agency, authority, and autography in a Pakistan bureaucracy. *Lang. Commun.* 23:287–314
- Hull M. 2008. Ruled by records: the expropriation of land and the misappropriation of lists in Islamabad. Am. Ethnol. 35(4):501–18
- Hull M. 2012. Government of Paper: The Materiality of Bureaucracy in Urban Pakistan. Berkeley: Univ. Calif. Press

- Jacob M-A. 2007. Form-made persons: consent forms as consent's blind spot. Polit. Leg. Anthropol. Rev. 30(2):249–68
- James EC. 2004. The political economy of "trauma" in Haiti in the democratic era of insecurity. Cult. Med. Psychiatry 28:127–49
- Kafka B. 2009. Paperwork: the state of the discipline. Book Hist. 12:340-53
- Keane W. 2003. Semiotics and the social analysis of things. Lang. Commun. 23:409-25
- Kelly T. 2006. Documented lives: fear and the uncertainties of law during the second Palestinian intifada. 7. R. Anthropol. Inst. 12:89–107
- Komito L. 2009. The culture of paper, information and power: an Irish example. *Anthropol. Action* 16(1): 41–55
- Latour B. 1990. Drawing things together. In Representation in Scientific Practice, ed. M Lynch, S Woolgar, pp. 19–68. Cambridge, MA: MIT Press
- Latour B. 1996. Aramis, or the Love of Technology. Cambridge, MA: Harvard Univ. Press
- Latour B. 1999. Pandora's Hope. Cambridge, MA: Harvard Univ. Press
- Latour B. 2005. Reassembling the Social. Oxford: Oxford Univ. Press
- Lévi-Strauss C. 1973 [1955]. Tristes Tropiques. Transl. J Weightman, D Weightman. New York: MacMillan
- Levy DM. 2001. Scrolling Forward: Making Sense of Documents in the Digital Age. New York: Arcade
- Li F. 2009. Documenting accountability: environmental impact assessment in a Peruvian mining project. Polit. Leg. Anthropol. Rev. 32(2):218–36
- Lund S. 2001. Bequeathing and quest: processing personal identification papers in bureaucratic spaces (Cuzco, Peru). Soc. Anthropol. 9:3–24
- Lyons J. 1995. Linguistic Semantics. Cambridge, UK: Cambridge Univ. Press
- Malkki L. 1995. Purity and Exile: Violence, Memory, and National Cosmology among Hutu Refugees in Tanzania. Chicago: Univ. Chicago Press
- Manovich L. 2001. The Language of New Media. Cambridge, MA: MIT Press
- Mathews AS. 2008. State making, knowledge, and ignorance: translation and concealment in Mexican forestry institutions. Am. Anthropol. 110(4):484–94
- Maurer B. 2005. Due diligence and reasonable man, offshore. Cult. Anthropol. 20(4):474-505
- Mazzarella W. 2006. Internet X-ray: e-governance, transparency, and the politics of immediation in India. *Public Cult.* 18:473–505
- Mazzarella W. 2010. Beautiful balloon: the digital divide and the charisma of the new media in India. Am. Ethnol. 37(4):783–804
- Messick B. 1993. The Calligraphic State. Berkeley: Univ. Calif. Press
- Miller D. 1987. Material Culture and Mass Consumption. Cambridge, MA: Basil Blackwell
- Miller D, ed. 2005. Materiality. Durham, NC: Duke Univ. Press
- Mitchell T. 1999. Society, economy, and the state effect. In *State/Culture: State-Formation after the Cultural Turn*, ed. G Steinmetz, pp. 76–97. Ithaca: Cornell Univ. Press
- Mitchell T. 2002. Rule of Experts: Egypt, Techno-Politics, Modernity. Berkeley: Univ. Calif. Press
- Mol A. 2002. The Body Multiple: Ontology in Medical Practice. Durham, NC: Duke Univ. Press
- Navaro-Yashin Y. 2007. Make-believe papers, legal forms and the counterfeit: affective interactions between documents and people in Britain and Cyprus. Anthropol. Theory 7(1):79–98
- Ong W. 1982. Orality and Literacy. London: Routledge
- Oppenheim R. 2008. Kyonju Things: Assembling Place. Ann Arbor, MI: Univ. Mich. Press
- Orlikowski W, Yates J. 1994. Genre repertoire: the structuring of communicative practices in organizations. Admin. Sci. Q. 39(4):541–74
- Pellegram A. 1998. The message in paper. In Material Cultures: Why Some Things Matter, ed. D Miller. pp. 103–120. Chicago: Univ. Chicago Press
- Pletsch C. 1981. The three worlds, or the division of social scientific labor circa 1950–1975. Comp. Stud. Soc. Hist. 23(4):565–90
- Poole D. 2004. Between threat and guarantee: justice and community in the margins of the Peruvian state. See Das & Poole 2004a, pp. 67–81
- Rabinow P. 1996. Essays on the Anthropology of Reason. Princeton, NJ: Princeton Univ. Press.

- Reed A. 2006. Documents unfolding. See Riles 2006a, pp. 158–77
- Rhodes L. 2004. Total Confinement: Madness and Reason in the Maximum Security Prison. Berkeley: Univ. Calif.
- Riles A. 1998. Infinity within the brackets. Am. Ethnol. 25(3):378-98
- Riles A. 2000. The Network Inside Out. Ann Arbor: Univ. Mich. Press
- Riles A, ed. 2006a. Documents: Artifacts of Modern Knowledge. Ann Arbor: Univ. Mich. Press
- Riles A. 2006b. Introduction: in response. See Riles 2006a, pp. 1–38
- Sampson S. 1983. Bureaucracy and corruption as anthropological problems: a case study from Romania. Folk 25:63-96
- Schwartzman H. 1989. The Meeting: Gatherings in Organizations and Communities, Ethnography in Organizations. New York: Plenum
- Schwartzman HB. 1993. Ethnography in Organizations. New York: Sage
- Scott J. 1998. Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven, CT: Yale Univ. Press
- Sellen AJ, Harper RHR. 2002. The Myth of the Paperless Office. Cambridge, MA: MIT Press
- Shannon J. 2007. Informed consent: documenting the intersection of bureaucratic regulation and ethnographic practice. Polit. Leg. Anthropol. Rev. 30(2):229-48
- Sharma A, Gupta A. 2006. Introduction: Rethinking theories of the State in the age of globalization. In The Anthropology of the State, ed. A Sharma, A Gupta, pp. 1-41. Oxford: Blackwell
- Silverstein M, Urban G. 1996. The natural history of discourse. In Natural Histories of Discourse, ed. M Silverstein, G Urban, pp. 1–17. Chicago: Univ. Chicago Press
- Smith BC. 1996. On the Origin of Objects. Cambridge, MA: MIT Press
- Stoler A. 2009. Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense. Princeton, NJ: Princeton Univ. Press
- Strathern M. 1991. Partial Connections. ASAO Spec. Publ. 3. Savage, MD: Rowman and Littlefield
- Strathern M. 1999. Property, Substance, Effect: Anthropological Essays on Persons and Things. London: Athlone
- Strathern M, ed. 2000a. Audit Cultures: Anthropological Studies in Accountability, Ethics, and the Academy. London: Routledge
- Strathern M. 2000b. The tyranny of transparency. Br. Educ. Res. Bur. 23(3):309–21
- Strathern M. 2005. Robust knowledge and fragile futures. In Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems, ed. A Ong, SJ Collier, pp. 464-81. Malden, MA: Blackwell
- Strathern M. 2006. Bullet-proofing: a tale from the United Kingdom. See Riles 2006a, pp. 181–205
- Street A. 2011. Artefacts of not-knowing: the medical record, the diagnosis and the production of uncertainty in Papua New Guinean biomedicine. Soc. Stud. Sci. 41:815-34
- Tarlo E. 2001. Paper truths: the emergency and slum clearance through forgotten files. In *The Everyday State* and Modern India, ed. CJ Fuller, V Bénéï, pp. 68-90. New Dehli: Soc. Sci. Press
- Tarlo E. 2003. Unsettling Memories: Narratives of the Emergency in Delhi. Berkeley: Univ. Calif. Press
- Ticktin M. 2006. Where ethics and politics meet: the violence of humanitarianism in France. Am. Ethnol. 33(1):33-49
- Verdery K. 1994. The elasticity of land: problems of property restitution in Transylvania. Slav. Rev. 53(4):1071–
- Verdery K. 2003. The Vanishing Hectare: Property and Value in Postsocialist Transylvania. Ithaca, NY: Cornell Univ. Press
- Vismann C. 2008. Files: Law and Media Technology. Transl. G Withrop-Young. Stanford, CA: Stanford Univ. Press
- Weber M. 1978. Economy and Society. Berkeley: Univ. Calif. Press
- West H. 2003. Who rules us now? Identity tokens, sorcery, and other metaphors in the 1994 Mozambican elections. In Transparency and Conspiracy: Ethnographies of Suspicion in the New World Order, ed. H West, T Sanders, pp. 92–124. Durham, NC: Duke Univ. Press
- Woolard KA. 1998. Introduction: language ideology as a field of inquiry. In Language Ideologies: Practice and Theory, ed. BB Schieffelin, KA Woolard, PV Kroskrity, pp. 3-47. Oxford: Oxford Univ. Press

- Wright S. 1994. Culture in anthropology and organizational studies. In *Anthropology of Organizations*. London: Routledge
- Yates J. 1989. Control through Communication: The Rise of System in American Management. Baltimore, MD: Johns Hopkins Univ. Press
- Yates J, Orlikowski WJ, Rennecker J. 1997. Collaborative genres for collaboration: genre systems in digital media. Proc. Annu. Hawaii. Int. Conf. Syst. Sci., 30th., 7–10 Jan., Maui. Washington, DC: IEEE Comput. Soc. Press
- Yngvesson B, Coutin SB. 2006. Backed by papers: undoing persons, histories, and return. Am. Ethnol. 33(2):177-90



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