Skilled Visions: Toward an Ecology of Visual Inscriptions

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A large part of ethnographic research, of theoretical reflections, and of commonsense assumptions about vision presumes that those who see are individual spectators and/or social actors, who impose certain social representations on experience. The “skilled visions” approach considers vision as a social activity, a proactive engagement with the world, a realm of expertise that depends heavily on trained perception and on a structured environment. This concept of, and approach to, vision allows us to recontextualize the critique of visualism in the wider contemporary debate on the anthropology of practice and the construction of knowledge.

Introduction

This chapter proposes a survey of some of the approaches to visuality that proliferate at the margins and across the disciplinary boundaries of visual anthropology. It seeks to explain how they contribute methodological tools and insightful case studies that help in charting influences and intellectual hybridizations on and around the history of visual anthropology. In particular, I shall refer to the “skilled visions” approach in the anthropology of vision (Grasseni 2007b), to ethnomethodological studies of visualization in scientific practice (Lynch 1985, 1990, 2001; Lynch and Woolgar 1990),
and to Latour’s actor-network theory (1991)—in particular, his approach to visualization and cognition (1986). I shall also draw on cultural psychology and the study of the role of artifacts in communication and cognition (e.g., Hutchins 1986, 1993, 1995; Hutchins and Klausen 1998; Suchman 1987, 1998; Suchman and Trigg 1993). I shall highlight the convergence of visual analysis and discourse analysis, especially in the work of Charles Goodwin (1994, 1996, 1997, 2000; Goodwin and Goodwin 1998; Goodwin and Ueno 2000). I shall argue that these trends are interesting to visual anthropologists as they converge toward a notion of vision that investigates it as the action of a body in an environment, considering it as a form of practical, emotional, and sensual knowledge and privileging case studies that deal with apprenticeship, training, and routines of action.

The aim of this chapter is thus to propose a theoretical approach to the field of “visual anthropology,” which not only interprets it as the study of visual and pictorial culture but poses the question of an “anthropology of vision” as a field of inquiry worth investigating through ethnographic means and methods. In order to roughly define these “strategies of the eye” (Faeta 2003), I propose the following preliminary considerations, which I will elaborate in the following section: First, looking is a technique of the body (Mauss 1935/1979); as such it is culturally inculcated and socially performed as habitus (Bourdieu 1972). 1 Second, learning how to look at the world, or how to visualize particular objects or phenomena, is a form of social apprenticeship. Learning a skilled way of looking, therefore, involves senses and emotions as the apprentice becomes proficient in carrying out a form of expertise. Third, the concepts of apprenticeship and of culturally competent ways of seeing lead the ethnographer to keep an analytical focus on different types of “schooling of the eye,” or schools of seeing—for lack of a better word to translate scuole dello sguardo, literally “schools of gaze.”

In alluding to the “gaze,” I by no means mean to invoke a disembodied or abstracted way of looking; I am instead seeking to define an intent and skillful capacity for looking, which I have named elsewhere “skilled vision” (Grasseni 2004a). Schooling of the gaze, in this sense, permeates every aspect of our daily, professional, artistic, and emotional lives. As a result, an anthropology of the visual is not exhausted solely by the production, utilization and cultural analysis of audiovisual, digital, or multimedia texts but includes, too, a close ethnographic analysis of the contexts and protagonists of the schooling of the eye.

As a way of anticipating what is meant here by an “ecology of visual inscriptions,” I refer mainly to the recent trend in ecological anthropology (Ingold 2000), which owes much to some key notions of ecological
Exploring Vision as a Situated Practice

The misconception that visual anthropology is exclusively concerned with producing or analyzing images (whether filmic, photographic, or of other kinds) has led to the rather banal and objectionable distinction between a discipline of words and a discipline of images. On the one hand, texts would be both capable of and passively open to transparent analysis, objective critique, and exhaustive description, while images would be opaque, affording too many opportunities and possibilities of interpretation. Hence visual texts would be subjective and incomplete.

Without wishing to enter the vexed question of realism versus relativism (Hollis and Lukes 1982; Hacking 1983; Nichols 1991; Winston 1995), let us remember as a commonly held premise that vision is not an automatic, mimetic capacity for crafting “copies” of things, processes, and images—which must have important implications for the ways we practice visual anthropology, and anthropology tout court. Visual knowledge should not be interpreted as a “realist” adequatio intellectus ad rem but rather as a form of cultural construction of the world around us. This is just one possible way of posing “the epistemological question” in visual anthropology: How do we consider our representations of the world as valid?

I agree with Tim Ingold (1993c, 2000), that we should not think of looking as just a capacity for image-reading or for discerning a predetermined design already present in nature (2001). I would like to discuss here the possibility of carrying out an ethnographic analysis of ways of seeing which, in my interpretation at least, cannot be disjointed from specific ways of looking. This will lead me, in the following section, to consider some responses to the “epistemological question” within neighboring disciplines, such as the anthropology of science, that can be particularly relevant to an anthropology of vision, albeit not devoid of problematic aspects.
In a project that I have carried out in the last few years I have asked fellow anthropologists and professionals from other disciplines to contribute case studies of the ways in which people actually use their eyes. I shall quote some of these examples in order to highlight what I mean by “skilled vision” and to explain how this notion may contribute a relativist, constructivist, and ecological solution to the epistemological question in visual anthropology.

The idea was to situate vision in a scenario of everyday skilled activities and to underline both the social and the material dimensions of visual training. Gathering different “ethnographies of sight” led to the conclusion that there is no “vision” as such; instead there are professional, aesthetic, ecstatic, sensual, and erotic exercises of vision, each a skilled and social activity in itself. Consequently, I have proposed the notion of “skilled visions,” in the plural, to acknowledge a plurality of visual practices that employ different kinds of gestural competence, develop within different kinds of apprenticeship, and are differently embodied (Grasseni 2007c). Examples of visual training in high- and low-tech practices (from architecture to urban planning, from scientific laboratories to medical training, from botanical to artistic apprenticeship) stress the importance of local rules and highlight the processes by which consensus on notions of beauty, propriety, and exactness is achieved socially.

This opens up an important aside, which I shall not follow up here but which is worth considering as part of the issues framing the epistemological question, that is, the relation between power and knowledge. A critical focus on imaging technologies—meant as mediators of meaning, power, and knowledge—frequently leads to an often implicit equation between vision and the disembodied, abstracted and rationalizing ways of seeing. From the point of view of the rediscovery of the senses, of the body, and of the local dimensions of knowledge, “visualism” stands for the technification of seeing, for the global inculturation of shallow media images and for the loss of the capacity to “look for oneself.” To this, we can oppose two orders of considerations.

First, we are by now used to critiquing Cartesian, formalized, and disembodied forms of visualization as carrying the power of Western rationality or exercising forms of surveillance. But we should remember that the opposite does not necessarily hold: embodied vision is not powerless. On the contrary, the social exercise of sight can be “an activity through which certain social actors find the materials for the maintenance of power” (Herzfeld 2007, 207; see also Herzfeld 2004). For instance, artifacts such as icons, models, and imaging technologies have great importance in inculcating a sense of aesthetic propriety that is seized through
the eyes but belongs, in fact, to the visceral, to the core itself of identity—professional and beyond. So if vision is cultural, this does not only mean that different cultures hold radically different metaphors for, and hierarchies of, the senses (as the works of Constance Classen and David Howes convincingly demonstrate). It also means that the conditions for the construction of meaningful visual knowledge are local, situated, and contextual—even in the highly technified, standardized, and functional Western world. Some examples from the ethnography of science, in the next section, will substantiate this.

Second, we should consider that visual skill is often invisible! It is a capacity for attention before it can become productive of any kind of visual representation, and, as Brenda Farnell puts it in this volume, “analysis and interpretations must be grounded in the multiple and complex invisible forms of cultural knowledge that make that which is visible and meaningful to its practitioners.” Therefore, we should find appropriate ways of investigating such tacit knowledge in its making, for instance, by studying the material and relational structure of its contexts of production. In the examples that follow, for instance, participant observation, analytic camerawork, and art-historical investigation have been used.

One “learns to see” in cultural ways. Visual training happens within forms of social (and sometimes, but not always, professional) apprenticeship. Francesco Ronzon (2007) elaborates ironically on visual skill from the margins of acceptable theatrical performance, following a group of drag queens acting on stage in the gay clubs of Verona, Italy. He “follows the followers” of Madame Sisi, a well-established drag performer posing particular attention to the artifacts and conversations exchanged by Madame Sisi’s fans. Artifacts such as posters or photographs of gay “icons” support and acknowledge collective notions of “propriety” and “beauty.” Appreciative and critical remarks about each other’s looks further negotiate and contextualize such notions. Here, “skilled vision” is the result of verbal, social, and aesthetic training carried out as resistance in the face of discrimination and marginalization. The ethnographer, newly exposed to this form of life, has to “pick up” the relevant cues in an environment where commonsensical definitions of beauty and grace break down.

A second example uses the technique of the analytic revisitation of filmed images, in time-lapse and slow motion, to highlight cultural patterns of movement. Riccardo Putti (2005, 2008) refers to “cultural kinesics” (Carpitella 1981a, 1981b) to distill the patterned behavior of visitors at an exhibition in Siena dedicated to fourteenth-century Gothic art. In particular, he highlights the widespread use of indexicals and acts of pointing to direct the visitors’ attention, notices that acts of orientation
and self-disposition in the space are a fundamental factor in the overall aesthetic experience of the visitor, and underlines a commonality of experience created by the space and rhythm of movement of other people’s bodies in space. He concludes that vision is not exclusively visual but a resonant, kinetic, synthetic mode of perception.

A historical analysis of botanical illustrations in eighteenth-century colonial science confirms this. Daniela Bleichmar has studied how naturalists were trained at length before going to the field, reading authoritative texts, memorizing and redrawing their illustrations. “Seeing was neither simple nor immediate, but a sophisticated technique that identified practitioners as belonging or not to a community of observers” (Bleichmar 2007, 175). Bleichmar discusses how “the notion of sight went beyond the physiological act of seeing to involve rather insight—an accretion that the paradox of the blind naturalist brings to the fore. The acumen of observation became so characteristic of the very persona of the naturalist that one could even do without the eyes” (168). To substantiate this claim, she quotes the case of Georgius Everhardus Rumphius (1627–1702), a German botanist and collector employed by the Dutch East India Company, who lost his eyesight.

Despite this considerable challenge, over the second half of the seventeenth century Rumphius amassed an incomparable collection of natural objects, many of which he sold to the Grand Duke of Tuscany as the basis of an impressive natural history cabinet. Rumphius also had many items drawn, and wrote or dictated their scientific descriptions in preparation for publication. These images and texts furnished the material for two titles appearing posthumously over the first half of the eighteenth century, The Ambonese Curiosity Cabinet (1705) and The Ambonese Herbarium (1741–55). (167)

Bleichmar argues that it was the authority of this kind of skilled vision that was implicitly drawn upon, when organizing and producing completely different kinds of representation of local knowledge, namely taxonomies of race ordered by degrees of miscegenation. Casta paintings of the late eighteenth century typically compiled model images of individuals or couples of different ethnicities, according to a white-to-black gradation correlated to occupation, social standing, and disposition. The ideological nature of this kind of taxonomic enterprise stands out glaringly now. What I wish to stress here is that it was a form of figurative display of a shared and implicit visual knowledge about “race.” The taxonomic classification and the diagrammatic disposition in space added to the analytical nature of such display (figure 1.1).
1.1 Vicente Albán, *Cuadros de mestizaje*, six pieces (Quito, 1783). Courtesy of the Museo de América, Madrid.
1.1 (continued)
The final example highlights the enduring guiding influence of structured environments and cultural artifacts for the social inculcation of skilled visual tasks. I refer to my own study of breeding “aesthetics”—the educated capacity of perceiving the animal body in terms of functional beauty—among dairy breeders in particular (see Grasseni 2005a, 2005b). The ethnography was conducted among breeders of the Italian Brown, a milking cow “progeny” breed developed through artificial insemination and intensive inbreeding from the original Swiss Brown breed. Professional breeders learn to look at cows and appreciate their “beauty” in highly functional terms. They assess, by looking, which desirable “milking” traits have been developed, and to what degree, in any single cow. In order to understand how this sensibility is developed, we need to look at what Bruno Latour (1986) would call “the socio-technical system” of animal husbandry: that is, at the interactions between breeders, cows, and the artifacts that mediate their mutual perception. Among the children of breeders, for instance, toys play a transparent role in the social mimicry of adult expertise. Plastic toys mimic the ideal of good form that is found in champion specimens (Grasseni 2007c, 47–66), recalling in detail the “morpho-functional” traits that are evaluated favorably in both cattle fairs and inbreeding practices (see figure 1.2). By observing daily such icons of animal “perfection,” the breeders’ children incorporate them into their everyday ecology of attention.

The use of such toys parallels the cognitive and social role played by scale models of “ideal cows” in the settings of their parents’ professional life. Scale models of prize cows serve, in fact, as trophies at cattle fairs. They are exhibited both in domestic and in professional contexts, thus serving both an educational purpose and one of social acknowledgment. Toys and trophies recapitulate both the historical development and the social inculcation of a professional aesthetics (Grasseni 2004a). This case study shows that what are or are not deemed to be “good looking” animals is often a question of how you learn to look at them. Which kind of visual training one is exposed to is often a case of professional history and of social hegemony. In this case the model Brown cow, mimicked by the plastic toy and the cattle fair trophy, is associated with a recent history of intensive dairy farming and with the ideological promotion of pure breeds with specialized functions.

The point of this ethnography was to stress the convergence of intellectual interest in cognitive artifacts—such as models and diagrams—with the practical concerns of technologies of power and simplification. This could not be clearer than in the works of Reviel Netz, author of Barbed Wire: An Ecology of Modernity (2004). Having shown in an earlier work...
1.2 Artist’s drawings based on technical specifications regarding the ideal body shape of the Italian Brown cow (2b, 2d, 2f), compared with relevant “traits” in the plastic body of a cattle fair trophy (2a, 2c, 2e) and with plastic toys of several breeds (2g, 2h). Drawings courtesy of A.N.A.R.B. Photos: Cristina Grasseni.
(1999) how the conservation of necessity in logical, mathematical, and geometrical deduction is a local invention that was amplified and disseminated through visual artifacts (the diagram), Netz devotes his study to the development of a more sinister controlling device: barbed wire, from a technology to control cattle during the colonization of the American West, to an architecture of containment in Nazi concentration camps and Soviet gulags. His ecology of modernity, drawing together the history of humans and animals, shows the interconnectedness of technology as a network, of the environment as a structured space, and of inscription as the powerful act of drawing a line (Ingold 2007).

To conclude this first section, I would propose that vision pervades our cultural forms of life in skilled ways that depend both on the way sight is physically trained and on social positioning. Skilled vision is certainly “sensuous knowledge” (Stoller 1997, 1989), or “corporeal” (Mac Dougall 2006), but it is also positional, political, and relational in important ways. Because skilled visions combine aspects of embodiment (as an educated capacity for selective perception) and of apprenticeship, they are both ecological and ideological, in the sense that they inform worldviews and practice (Grasseni 2007b).

Anthropologists are interested in how private views and expertise become representable and communicable in some way. What inside observers consider crucial to see, in order to participate competently in a standard practice, must be conveyed in a way that makes it visible as well to an outsider. This may include mutual understandings about what must be overlooked, or unremarked, by the expert onlooker.

This means facing the issue of the privacy of perception, or of the incommensurability of different worldviews. An operative perspective on the sharability of experience (including visual experience) can be found in the work of Harold Conklin, an ethnoscientist who worked for years among the Ifugao of the island of Luzon in the Philippines. For him, gaining a perspective of “intimacy” into the working knowledge of his informants could not in any way be the result of finding an “objective” stance. Veridicity was not a matter of how “naturally” things evolved under the eye of the (visual) anthropologist. If he wished to “represent” correctly the ecological knowledge that Ifugao agriculturalists had of their mountainous landscapes, he had to resort to “mediating devices” such as maps and elaborate diagrams of their seasonal activities. Here, I am concerned with how Conklin poses and solves the epistemological problem of representing Ifugao vision for himself and for his readers, rather than with Ifugao vision per se. Indeed, as Allison Jablonko puts it, Conklin, with his Atlas (1980),
had transformed the complex environmental knowledge and practices of the various Ifugao communities into a form of printed communication that could communicate crucial information about phenomena that were otherwise largely invisible to outsiders. The Atlas which resulted from this multidisciplinary effort was used to “educate the gaze” of Philippine politicians. . . With the Atlas in hand, local Ifugao leaders could go before the national government and win a fight against the construction of dams which would have destroyed a good part of their territory. (Jablonko 2008)

We shall return in the next section to this search for oversight as one way to solve the epistemological problem in visual anthropology. For the moment, I simply wish to enroll the workings of “icons” and “indexes” (Herzfeld 2007)—from cartography and diagrams to classificatory paintings and artifacts to cultural kinesics—as methods through which local constellations of knowledge (performative, bodily, corporeal, even visceral) are translated into formats that guarantee their sharability.

Ethnographers of science, and other authors from relevant disciplines, have toiled to develop a vocabulary that is apt to convey and analyze the stages of such transformation, from the intimacy of apprenticeship to the circulation of standard representations. In particular, seminal laboratory studies (Latour and Woolgar 1979; Lynch 1985) have focused on the mediation of teamwork through technology. Ethnomethodological studies of science were among the first to focus on detailed analyses of the various technologies of vision and inscription that are effectively employed in situated practices, on their socialization through apprenticeship and on their hegemonic potential (see, e.g., Lynch and Woolgar 1990; Goodwin and Ueno 2000). Garfinkel, Lynch, and Livingston’s (1981) seminal study on the optical discovery of the pulsar shows how the act of seeing an entity whose existence had long been posited, but that had never been observed, depends on a complex interaction of communication with other humans and with visualizing machinery, an epistemological act they equate with the Gestalt experience of making out an animal amid thick foliage. In this case, it was a question of giving the meaning of seeing something out there (a pulsar) to a series of complex recording on a computer screen, a video display and a printout of mathematical data.

For Lynch and Woolgar (1990), scientific representations are veritable acts of inscription, which pass through the stages of selection (according to standards), modeling (highlighting), and mathematization (definition) in order to “reveal” an object. Far from being an act of copying, this complex process amounts to an act of shaping or construction. The images thus produced in scientific practice are textual hybrids that serve
the purpose of sharing representations in order to manage operational notions.

Following this line, some ethnographies of scientific, professional, and organizational contexts have argued forcefully that human activity is mediated by artifacts (Chaiklin and Lave 1993; Norman 1988, 1993; Cole 1997; Suchman 1998; Suchman and Trigg 1993) which often have a standardizing function that allows different “epistemic cultures” to co-exist and cooperate toward a functional end. Susan Leigh Star, who trained at the pragmatist school of social interactionism, has pinned down the apt notion of boundary objects as those artifacts that are capable of connecting practices and routines characterized by disparate methods, problems, and theoretical premises. Being characterized by modularity, abstraction, standardization, and mobility across different contexts (Leigh Star and Griesemer 1989), boundary objects can be as functional as insurance claim forms, which single out the information necessary for a clerk to figure out whether a claim can be accepted (see Wenger 1998, 106–9). Leigh Star and Griesemer in fact refer to a much more complex historical case study: the foundation of the Zoology Museum at Berkeley, where director Joseph Grinnell succeeded in channeling the material interests and intellectual resources of such disparate partners as amateur collectors, taxidermists, hunters, professional biologists, university administrators, researchers, and philanthropists. His uniform protocol for data gathering greatly contributed to establishing the notion of “ecological niche,” systematizing the museum displays and archive as an immense database that in turn contributed to the founding of ecology as a distinctive subdiscipline. He made use of evolutionary, biogeographical, and physiological concepts (selection, distribution, interaction) that were paramount in defining the interplay of ecological and geographical factors in the process of speciation.

The conviction that artifacts are powerful mediators and generators of sense is also widespread in some quarters of cultural psychology and cognitive research. A vast literature has specialized in ethnographic-style research on how the social and the material environment play a fundamental role in the ways in which we develop cognitive and performative strategies in our life worlds (e.g., Rogoff 1990, 2003). Though “cognitively motivated,” such studies diverge from the main tendencies of the cognitive sciences, both the representationalist strands (which identify cognition with the elaboration of information and symbolic manipulation) and the neural network ones (inspired by the model of parallel distributed processing in such networks). The starting point of such studies, instead, is the idea that actors and objects co-organize practices in local
contexts. In brief, “cognition” must be here understood not as “computation” (as in the commonsense application to computers), but as embodied, relational, and interactive—hence social. From the foundational work of Michael Cole, Edwin Hutchins, Jean Lave, and Lucy Suchman, one can thus derive a project for an anthropological understanding of cognition as situated action.

As Cole sums up, artifacts are at the same time conceptual and material: they have a modeling function, they are transformative and they orient perception and action according to value (1997). Our systems of activity are in fact saturated with artifacts with which we interact and through which we mediate our interaction with others. Indeed, as recent literature on distributed cognition demonstrates, technological or “cognitive” artifacts and contexts may be instrumental in mediating skill (Hutchins 1995; Cole, Engeström, and Vasquez 1997; Engeström and Middleton 1998). The distributed cognition approach holds that all expert action is situated in an environment whose resources structure and orient it. In other words, all expert action is mediated, since external supports guide, describe, and shape it. Cognitive artifacts are one such type of mediators that embody and embed the results of previous expert action. Traffic lights, the arrangement of supermarket rows, and to-do lists are all ways (varying in complexity) to arrange and structure a context of action in which, through the aid of appropriate tools, human action is guided in ways that have been prearranged by previous expert action. The arrangement of the shelf guides my shopping according to a logic, more or less coherent to my own shopping list. I can shop according to my own strict, prearranged list or let myself be guided by an architecture that has been arranged for me beforehand. In order to manage such artifacts we need to align our action with them and continuously coordinate between our plans of action and the interpretation of the resources around us (Hutchins 1986).

The ethnographic research program directed by Lucy Suchman at the Intelligent Systems Laboratory of the Xerox Research Center of Palo Alto (PARC), has focused especially on the role of devices for seeing (diagrams, formulas, models) that simulate scenarios of action on paper, screens, and the like. In an ethnography of an information technology programming team, Suchman and Trigg insist that the team members’ interaction can be seen as a skilled improvisation woven around the cognitive constraints and possibilities afforded by the material supports of the traces of their brainstorming (1993, 146). Even though IT rests squarely on an idea of knowledge representation, Suchman shows how important aspects of it are highly relational “craftwork,” whose main support is the two-dimensional surface of the whiteboard. The whiteboard becomes a space for cogni-
tive, perceptive, performative, and emotional investment. Through it, each programmer can contribute to the team’s flowchart as a sharable and manageable object. They draw, cancel, modify, and discuss their inscriptions, which makes them concrete conceptual objects (1993, 160).

The visual and situated component of human interaction and communication has been analyzed not only in visual anthropology but in sophisticated studies of linguistics and pragmatics. From the stepping stones represented by the works of Michael Cole, Edwin Hutchins, Lucy Suchman, Jean Lave, and others, ethnographic research on cognition has hence developed as a study of situated action. On yet another versant, actor-network theory has underlined the “metropolitan” and “metrical” nature of technological mediation that is achieved through the dissemination of “mobile inscriptions” (Latour 1991). In this latter perspective, visual inscriptions emerge as powerful carriers of knowledge, socality, and identity: a successful go-between from the grounded, situated body to the global hierarchies of sociotechnical networks. From this heterogeneous landscape, in the following sections we shall single out some relevant examples.

The Role of Visual Practice in Constructing Reference

Bruno Latour is widely known as a theorist and an ethnographer of scientific practice. His work, like that of many other scholars active in the philosophy and the history of science (see, e.g., Pickering 1992; Miller and Reill 1996; Lenoir 1998; Tufte 1983), starts from an analysis of how we make ourselves visual representations in scientific practices, to show that such representations are in no way spontaneous copies, but are highly constructed. In an essay entitled “The ‘Pedofil’ of Boa Vista” (1995) he sets out to unpack the notion of scriptures visuelles. By “visual inscriptions” he means the media by which we successfully make reference, by way of representation, to the world. Latour is particularly interested in scientists in action (Latour and Woolgar 1979), but his arguments in fact refer—as has become clearer in his latest books on the political effects of the dissemination of scientific objects—to all those cognitive transformations that the world must undergo so that we can make ourselves a picture of it. For instance, the map, as a visual and textual artifact produced in a local context, can be read as a thick inscription of socially constructed knowledge. Different capacities to visualize the landscape correspond to different capacities to contribute to its cartographic representation (depending on personal or professional histories and specializations of
practice, e.g., Grasseni 2004b). But a geographer draws a map in such a way as to perform an act of designation, and so do we. Latour wishes to pin down exactly what is entailed by such a process of “constructing reference,” even though starting from fine-grained, eminently local contexts of knowledge.6

What the Latourian approach adds to social constructivism is the thesis that the reliability of our knowledge of the world depends on the dissemination, sharability, and persuasive power of inscriptions. In “The ‘Pedofil’ of Boa Vista,” for instance, Latour investigates pedology as a field science, showing the various stages through which soil from the Amazon forest is progressively transformed and adapted to different kinds of graphic inscriptions. These act as a reliable interface between the actual field, situated at the border between forest and savannah, its raw data, and scientists’ theory about how the forest may be advancing into the savannah. Is the forest encroaching on the savannah or is the terrain around the forest slowly degrading into shrubs and grass? One of the “mediating technologies” involved in the inscription process is provided by a page of the Munsell color charts: the coding of samples of soil, according to international standards of color hue, marks a fundamental mise en forme of the forest’s “raw data.” A particular soil sample collected by the research team can thus become a number, that is an index, within a diagrammatic representation of the state of things as they are (see figures 1.3–1.6).

The success of the map and of the overview, or, as Latour would put it, of the technologies of visual “inscription” and technological “mediation,” can hardly be explained away as mere Western visualist ideology, nor can they be substituted by “just looking” at something. As other authors in this book authoritatively argue (see Farnell), we should not conflate a critique of visualism with aversion to analytical work on and with vision in anthropology. Indeed we should distinguish generic calls for holistic approaches to embodiment and the senses (Okely 1998, 2001) from actual research on the processes of visual “enskilment,” that is, on the apprenticeship of particular skilled visions that are specific to situated practices. How much can these tell us about the hegemony of, and resistance to, the “sociotechnical network”? There are several examples of field studies that begin to do just that.

Richard K. Sherwin, Neal Feigenson, and Christina Spiesel, in their study at the frontiers of visual anthropology and cultural legal studies (2007), explain how legal scholars, like anthropologists and many other practitioners of knowledge, have “been struggling to work through a crisis of sorts regarding the nature and communicability of truth.” In American
1.5–1.6 Use in the field of Munsell’s charts to identify the color of a soil sample. Latour (1995) argues that this is one of the ways in which pedologists practically establish references between their final soil report and the original encounter with the forest. Courtesy of Bruno Latour.

courtrooms, visual artifacts that range from photographs to digital video-recordings and their edited versions, are appropriated and interpreted so as to serve as powerfully effective persuasive devices. In this context, to be highly effective in epistemological terms also means having powerful effects on people’s lives and destinies, since “inside the courtroom, the difference between truth and falsity, fact and fantasy, objectivity and subjectivity, may be a matter of life and death” (2007, 144).

In particular, the courtroom treatment of the amateur recordings of the infamous police beatings of Rodney King has been the object of both anthropological and legal analysis. Allen Feldman, in his contribution to Nadia Seremetakis’s seminal volume about memory and the body, denounces the “‘cultural anaesthesia’ that pervades the processes of ‘normalizing’ and ‘silencing’ everyday life” (1994, 89). In his words, the video that spurred the Los Angeles riots—an angry popular response to white policemen beating mercilessly an African American driver—was edited by the defense so that King was “montaged into a purely electronic entity with no inwardness or tangibility” (1994, 98). King’s silencing, and
the voicing of the policemen’s point of view within the courtroom, also by way of video editing, was yet another form of violence, of “sensory privilege.”

Similar uses of visual testimony are commonplace in contemporary court cases. The local conditions by which visual authority is actually created, defended, and contested have been authoritatively critiqued (Jasanoff 1998). The King case had also received insightful attention by different scholars and disciplines (see Goodwin 1994). Charles Goodwin has recently contributed many analytical insights on the practice of inscription and has specifically called for an ethnomethodological approach to visual analysis (Goodwin 2000). His analytical treatment of the courtroom recordings of the trial, and of the way edited footage was used in testimony, purposefully argues for a more general thesis, that “coding schemes are a systematic practice used to transform the world into the categories and events that are relevant to the work of a profession” (1994, 608). In other words, “coding,” “highlighting,” and “producing and demonstrating material representations” of complex phenomenal events are all steps of paramount importance in the construction of a shared perception and interpretation of the world in a given context.

For Goodwin, in general, human interaction and communication also work thanks to visual and situated components, which are provided in ad hoc contexts by different means of inscription. In other words, “the public organization of visual practice within the worklife of a profession” (Goodwin 2000, 164) provides a material and relational setting—something I would call an ecology of practice—without which perception would be abstracted, action would be meaningless, and communication would fail. This is very relevant to a reflection about vision as a highly flexible and structured “way of knowing” (Grasseni 2007b), especially when it is applied to controversial cases—such as the Rodney King beating—involving the structuration of power in and around such settings. Following Goodwin’s argument, “professional vision” literally shapes events, by giving them meaning from a point of view that is internal to a community of practice (Wenger 1998). The case of police officers justifying recourse to violence, by way of carefully editing and heavily interpreting a piece of footage, shows how powerful the strategies of professional vision can be when they are coupled with unquestioned hierarchies of expertise, however much one might naively assume that video-recorded evidence would constitute “objective” data.

In this and in several following studies, conducted in diverse working environments using both visual and discourse analysis, Goodwin
examines similar yet less controversial processes, such as those in which apprentice archaeologists learn to map a dirt patch, or of laboratory novices learning to discern “the blackness of black” (Goodwin 1996, 1997). As an anthropologist, linguist, and expert of human communication, Goodwin treats vision as a situated negotiation among people who attune their visual capacities both cognitively and socially. Even in the case of a scientific gaze (1997, 2000), for instance, he uses ethnographic observation to problematize the idea of a universal color classification. In this latter case study, conducted in a chemical laboratory, an acrylic fiber is subjected to chemical reactions in order to measure the amount of radon in water. The preparation of the fiber entails dipping it in a solution from which it is extracted after about ten minutes, when it has become jet black. The inventor of the process himself is present and teaches young apprentices to recognize when the fiber is black enough. He intervenes in the decisions of the apprentices by exchanging opinions and remarks with them, by making them notice the texture of the fiber as well as the color, and by using comparisons from natural experience (the ink black of the fiber is compared to gorilla fur, while fiber not yet black enough is called “orangutang hair”). On the basis of this ethnography Goodwin argues against a cognitive approach to a universal semantics of color classification (Berlin and Kay 1969; Conklin 1955; but see Wittgenstein 1977). Without contesting its existence, Goodwin simply observes that in order to be put to work, such semantics still needs attuning to local contexts of practice, which provide empirical frameworks of reference for its application.

What has all this got to do with visual anthropology, or with anthropology tout court? The apparently elitist practice of the ethnography of science uses the tools of participant observation in professional contexts to answer what is in fact a much more general question, which lies at the core of epistemological debates within visual anthropology: Is it possible to generate automatic visual judgments? How do we agree on a world-image? When we speak of a world-image or a world-view, while it is counterintuitive to speak of a world-smell or a world-taste, does it mean that we are biased toward visualism? (See, e.g., Fabian 1983; Classen 1993; Howes 1991; Feld and Basso 1996.) We expect a uniform perception of what is “under everyone’s eyes” but have no such presumption with smells or tastes; where these are concerned, we at least concede that we do not all share the same sensitivity. Is it because we hold a presumption that we can make spontaneous representations—visual copies—of the world?

The case studies and theories that I have briefly reviewed propose a flexible way of approaching this “epistemological problem” by chart-
ing actual visual practices in situated contexts. Latour’s anthropological study of the pedologists of Boa Vista, for instance, consists in mapping their own acts of mapping the forest. He singles out from their activity the devices thanks to which they “think with eyes and hands” (Latour 1986). Such devices are *artifacts*, endowed with a cognitive and a practical agency at the same time. To look at the empirical ways in which pedologists use the Munsell code pages to itemize samples of Amazonian soil is itself a way to solve on an empirical basis “the epistemological problem.” It means putting in brackets “nature,” as an ever-distant ontological term to which our representations should adequate themselves, in order to follow instead, and more fruitfully, the actual passages and transformations that allow us to construct and share visual artifacts that are *about* the real world.

Goodwin’s and Latour’s treatment of Munsell charts share many common observations though leading to somewhat differing conclusions. In both cases, scholars who would not, I think, define themselves as “visual anthropologists” have shared a fascination for the ways in which different communities of practice appropriate the Munsell code. Goodwin analytically highlights all the various phases of adjustment and appropriation that must be put in place around such inscriptions in order to render them operational and functional to contexts: Munsell standard color-coding charts must be made viable in the field and sharable among teachers and pupils. Thus archaeologists make holes in the color samples, single out the relevant pages, use a trowel to be able to look at a soil sample through a peephole in the page, and so on. These professionals are always “highlighting, coding, framing”—all activities that go on around artifacts in order to use them in a coherent way within a common effort. This means that the power of standards is not limitless, or rather that standards must always be adapted to particular material and conversational situations: real contexts in which humans act and speak to each other, exchanging information. Similarly, in his ethnography of a chemistry lab, Goodwin shows how “black” is a shifting category despite the existence of well-established universal color-coding and sampling repertoires. In a laboratory where a chemical process must be stopped when the fabric immersed in a permanganate solution becomes “jet black,” the capacity to recognize such jet black is itself subject to training, and to much talk (Goodwin 1997).

For Latour, by contrast, to witness how pedologists adapt pages of the Munsell code to the necessities of their field (exactly as Goodwin’s archaeologists do, singling out pages, preparing viewing holes, etc.) is to find a practical solution to the epistemological question in science
studies. Namely, it means to shift from structuralism to metrology. The Munsell code is an empirical way to “shift” and “translate” from raw data (soil color) to transportable, treatable, and communicable data (the number of the corresponding colors). A la William James (1981), such passage is not a matter of theorization but of an empirical tradition, of practical expertise. According to Latour, though, far from restating the importance of personal, tacit, and indigenous knowledges (see, e.g., Polanyi 1958), such empirical passages are precisely what allows the construction of reference, by overcoming the strictures of incommensurability, of untranslatability, and of local knowledge. Granted that knowledge is situated, the various and successive operations of inscription, translation, and recombination to which scientists subject their “raw data” serve precisely to transform local contexts of knowledge into manageable, constructed, and sharable settings. In fact, Latour’s many-faceted oeuvre illuminates the triumph of metrology.

To put it in Latour’s words, “If a picture is worth a thousand words, a map can be worth a whole forest,” and “Scientists master the world, but only if the world comes to them in the form of two-dimensional, superposable, combinable inscriptions” (1995, 24, 29). That’s why every filing cabinet, grid, graph, or map “is a theory.” According to this view, to uphold local and situated knowledge as a paradigm would be unnecessarily polemic. Instead, what is of general interest is to locate and study the operational technologies at work in creating different types of visual scriptures, and to highlight their cognitive qualities, as Elisabeth Eisenstein (1979) does with print as an agent of change. According to her reading, for example, the Copernican revolution would not have been achieved if not for the unprecedented dissemination of printed astronomical maps that made available to a synoptic scrutiny the many contradictions and contrivances of the Ptolemaic system (see Latour 1986).

Within this framework, the work of anthropologists, archaeologists, and pedologists alike is that of constructing a passage from one ontological self-contained entity to another (e.g., from soil to color), while maintaining comparative differences, as in geometry. Visual inscriptions are hence any kind of devices that “translate” three-dimensional reality to a two-dimensional “trace” that makes a different kind of data “visible under the same unifying gaze” (Latour 1995, 38). They are mobile, and often they permit new recombinations of traits, thus allowing patterns to emerge, as they literally stand out against new backgrounds. Eventually, “translation” is a matter of creating a synoptic situation in which “oversight” is guaranteed, both in the sense of gaining a vista, an overview, and of forgetting that “the map is not the territory.”
To conclude, while Latour underlines the conventional coding of judgments, protocols, tags, logbooks, and all the rites of verification that pedologists, botanists, and anthropologists impose upon themselves in order to guarantee a valid “circulation of reference” between their inscriptions and the world, Goodwin underlines precisely the idiosyncratic aspects of such rites, the fact that they always bring back conventions and standards to the local contexts in which such conventions and standards are applied. Both positions have produced many interesting insights to visual anthropology, starting from the concept of “professional vision” (Goodwin 1994). If the skilled visions approach (Grasseni 2007c) asks how we are trained to see a particular type of object or situation that, for an unskilled onlooker, can be a neutral object, the Latour approach is about how to invent ways of sharing views, or in other words, how to represent a problem by giving it a shape that makes it visible in a new way. Against an intellectual iconoclasm that tends to erase the role of visual scriptures (see Jay 1993), this trend in the ethnography and in the history of science hopes to provide an iconophile description of formalism in its making (Stafford 1996; Galison and Jones 1998; Netz 2004; but see also Bateson and Mead 1942).

I think that a possible convergence of the two approaches can be played on the ground of what Wittgenstein would call *Uebersichtlichkeit* (1956), that is, another way of taking visual inscriptions as constructions, which impose themselves on us as evident but only as a result of training and belonging to specific forms of life. *Uebersichtlichkeit* is the quality of a perspicuous representation of a state of things, a synthetic representation that is achieved in such a way as to be communicable (hence sharable) and manageable (hence operational, often in formal ways, as in mathematics). In other words, Latour’s *oversights* and Goodwin’s *professional visions* look compellingly plausible only as the result of training, of yielding to the sheer force of repetition that rites of verification and rotas of apprenticeship impose on us. A viable direction for research that can be derived from these insights is to focus visual-anthropological analysis on the disciplined and disciplining aspects of memory and sensibility that are not spontaneous, personal, and subjective but rather embedded in mediating devices, contexts, and routines, taking into consideration the role played by peer-to-peer negotiation, hierarchical relations, and the management of contexts, narratives, and artifacts.
Conclusion

The increasing interest, among the current generation of ethnographers, in the scope and reach of visual research methods (Pink et al., 2004), as well as the intertwining histories of photography, film, and anthropology (Grimshaw 2001; Edwards 2001), can only benefit from the awareness of the many links between science and the visual, as well as from collaborative research and production across the arts and sciences (Schneider and Wright 2006). We are, after all, reminded that the history of film began “as the media and technological variation of a long-term transformation of western epistemology” (Gumbrecht 1998, 362).

Local formations of knowledge are analyzed by the authors and trends reviewed here not as a given but in their making. In particular, the work of ethnographers of science who are sensitive to the importance of visual knowledge highlights the complex relation of a “constructivist” attitude to visual artifacts and the hegemony of the sociotechnical network. We can position these studies at the interface between ethnomethodology, actor-network theory, cultural psychology, discourse analysis, and of course visual anthropology. As we have seen, in fact, the disciplinary literatures evoked by each of these trends are interested, although in different ways and by way of different pathways, in finding and pursuing analytical approaches to visualization and cognition, both in classical scientific contexts and more generally in contexts of communication and cognition. At the intersection of such interests lies a common fascination for the powerful workings of inscriptions (Latour 1986) and for the role of artifacts, to the point that some of these authors have published extensively about precisely the same kind of inscriptions, such as Munsell charts—as variously employed, for instance, by pedologists (Latour 1995) and archaeologists (Goodwin 1994)—or the Rodney King video (Feldman 1994; Goodwin 1994; Sherwin et al. 2007).

Bruno Latour’s and Charles Goodwin’s works, for instance, provide lucid accounts—however different—of how we do not “grasp an image” of the world but rather construct representations that substitute for the world. I think this is a useful stance from which to approach the epistemological problem of visual anthropology, that is, the ways in which we treat and consider our photographs, film, digital media, and multimedia as “pictures” of the world. In particular, from the point of view of an ecological approach to visual practice, it is important that we consider our visual inscriptions as artifacts and that we assess the way in which they...
contribute to structuring a material, cognitive, and social environment for situated action.

Notes

1. Other authors concerned with the ecology of practice dislike the notion of habitus as unduly focused on “unconscious practical logic.” See Farnell (2000, and in this volume), who stresses agency over disposition and “the causal and performative power of both action signs and vocal signs as resources for meaningful action in social life.”

2. Interdisciplinary discussions around “skilled visions” and situated knowledge were initiated at a preparatory seminar, “Practices of Locality,” organized in 2000 at the University of Milan Bicocca with Paola Filippucci. In 2004 I chaired a thematic session titled “Skilled Visions: Between Apprenticeship and Standards” at the Vienna EASA Biennial Meeting and organized a symposium (“Skilled Visions: Educating Attention in the Field”) with Mike Bravo and Andreas Roepstorff, hosted by the Centre for Research in the Arts, Social Sciences and Humanities (CRASSH) at Cambridge University. Skilled Visions, the editorial project that ensued, gathers selected revised papers of the EASA panel with invited contributions from the Milan and Cambridge workshops. The postgraduate school in Anthropology and Epistemology of Complexity of the University of Bergamo (Italy) provided the basis for a follow-up conference in 2006 whose proceedings were published as Imparare a Guardare, ed. C. Grasseni (Milan: Franco Angeli Editore, 2007).

3. Brenda Farnell, in this book, provides a convincing overview and critique of the many links between literature on “the body” in visual culture, the anthropology of the senses, and critiques to visualism.

4. This is also relevant to the debate on indigenous media and to the ways in which different worldviews would be literally a matter of “seeing through” disparate cultural lenses (see Faye Ginsburg’s discussion, in this book, of the classic work of Worth and Adair).

5. The emphasis on training vision with reference to naturalistic drawing at an age much earlier than that of photography integrates in interesting ways what Elizabeth Edwards, in this volume, calls “the rhetorics of the disciplinary eye.”

6. See, e.g., his analysis of La Pérouse’s journey through the Pacific with the explicit mission of bringing back a better map of the Asian coastline for the French king Louis XVI (Latour 1990).

7. Sheila Jasanoff, with reference to the O. J. Simpson murder trial, argues that “scientific evidence must be seen to be believed.” Yet, “the judge’s uncontested remarks and rulings established at many crucial points whose
vision would be authorized as expert, and in what circumstances lay vision could take precedence over expert sight” (1998, 713).

8. For Latour, “Inscription is a summary for a set of different attitudes of which the visual is still the most crucial, because this is the one that allows the simplification of perceptive judgment that closes disputes down—momentarily of course, as Goodwin nicely shows” (personal communication, September 9, 2006).