

Material Culture and Technology in Everyday Life

ETHNOGRAPHIC APPROACHES



EDITED BY **PHILLIP VANNINI**

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Preface

Eugene Halton

As part of a research project for what would become my book, *The Meaning of Things*, I interviewed a Chicago high-rise apartment dweller whose living room consisted of almost no furniture and over 300 flowering houseplants. There were 200 fuchsias alone, tightly packed in open bins with a watering system, near the wide windows overlooking Chicago's Museum of Science and Industry in Hyde Park. His living room also held various spice plants that he brushed while we walked around the room, releasing a tropical forest of scents.

The high-rise was selected as the location for interviewing a roughly "upper middle-class" sample for the pilot study in 1976, and each floor had a similar identical architectural design. It made it even more interesting that I had been in apartments with the same layout on other floors, and none were remotely similar to this. What might this man's stuff tell us about material technoculture?

When I asked him about his special material possessions, he spoke about his love for the plants, about how they kept him in touch with nature in the middle of the city, his membership in some horticultural societies, and about the status hierarchies of plant keeping. It turned out that "the common coleus," as he put it with a slight look of disgust, was low status, kept by people who seemed to him to be lowbrow, merely following the late 1970s trend of keeping houseplants, whereas his houseplants were high status. It was all fascinating sociology, to see and sense his living symbols of social relations. He was part of the houseplant trend, but had found a way to distinguish himself from it as upper status.

This man worked in philanthropy, rubbing elbows with the rich on a daily basis. He then returned to his high-rise haven of high-status flowering plants, a veritable forest of symbols reflecting a disdain for the hoi polloi below him. But he also mentioned as one of his special possessions a Lucite-encased fragment of a cadmium control rod from the world's first nuclear reactor, built nearby on squash courts under the University of Chicago's Stagg Field football stadium bleachers, as part of the Manhattan Project during the Second World War. It produced the world's first self-sustained nuclear chain reaction on December 2, 1942, as Enrico Fermi's "Chicago Pile #1." Here was the first objectification of the atomic age, the first building block of nuclear bombs, preserved as a little living room knickknack, a souvenir.

As I reflected on his possessions after the interview, it struck me that if this apartment were to be preserved a thousand years from now, an archaeologist bumping into it would find no plants, perhaps at most only shelving, watering

pipes, and timers for them. Consulting the newspapers of the time, the archaeologist might infer “meth lab” or indoor marijuana growing equipment, some drug business operation, but probably not fuchsias grown for aesthetic and nonutilitarian purposes. Material objects do tell stories, though usually not the whole story. But that archaeologist would still be able to date an artifact from the absolute ground zero of the atomic age, the radioactive rod. What would your possessions, detached from the meanings they hold for you, tell that same archaeologist a thousand years from now?

The atomic age: consider how archaeologists and historians date the swaths of history by the things that humans fashion or use: the Stone Age, the Bronze Age, the Iron Age. And these traditional categories could be followed by the Steel Age, the Atomic Age, and now, perhaps, the Silicon Age. These “Ages” are attempts to picture human prehistory and history through material indicators. Or perhaps it would be better to say through material indicators that last. My respondent’s plants would not leave many physical traces and probably no traces of the social relations in which they involved him.

Indeed one of the problems with the “hard-thing” ages of humankind approach to human development is precisely the way it overvalues stuff that lasts and undervalues social practices involving symbolic communication, or soft textile cordage, traps, baskets, shelters, and so on. The soft technologies do not survive, the hard ones do, and so tendencies toward objectivism end up defining a people “Paleolithic” or “Neolithic,” based on surviving stone tools. Hence the “hard-thing” view of history and prehistory is itself a mirror of the modern age of materialism and its idealization of the thing.

Archaeologists have only fairly recently begun to correct the tendency to overvalue *homo faber*, the human maker, and undervalue *homo symbolicus*. But this also raises questions concerning the place of materialism and technique in everyday life. Until recently, the ability to use tools was taken as a defining feature of human culture. But Jane Goodall’s chimps and a variety of other animals have demonstrated abilities to fashion, use, and transmit tools, suggesting that either culture is broader than humans or that it is abilities other than tool use that mark human culture. Hard tools, though useful indicators, simply do not record the most important steps in the development of symbolic intelligence. The primary technology that transformed us into the category of humanity was the emerging human body, bootstrapping its way through forms of touching, empathic communication, and vocalization, using its flexible brain to attune itself to the inner and outer voices of nature.

Humans emerged in a world that was alive, a biospiritual, signifying world that engaged the ritualizing creature into its emergence. And material technoculture was already there, enabling humans to expand the range of what

Paul Shepard (1998a [1973]) called *the sacred game*, to catch larger game, cook otherwise inedible plants, to travel to remote places and climates, and even to savor, select, and spread flowering plants for their beauty.

The transition from hunter-gatherer life to that of agriculturally based civilization some 12,000 or so years ago was a great watershed of consciousness, not only radically altering the relation to the living environment, but also producing the origins of materialism. Domestication meant that humans began to surround themselves with stuff permanently, instead of foraging for it nomadically. Our world is its legacy.

One of the dubious distinctions of civilization was the introduction of poverty as well as property. The city, as focal point of civilization, elevated an *anthropocentric mind* to the center of human consciousness in its invention of divine kingship and of personified deities, its development of standing military organizations and bureaucratic institutions, its domestication of wild animals and plants, and its rational organization of them and other goods as commodities, capable of being valued for exchange. Cities made a lot of stuff, and control of that stuff became the stuff of power. Lewis Mumford (1967) has described the origins of the city and its institutions as the first *megamachine*, which consisted of mostly human parts. Civilization, as megamachine, is thus at its core implicated in the radical proliferation of material culture and technoculture in everyday living.

But the transition concerned more than *having*; it cut to the quick of *being*, more than I can outline here (see Halton 2007; Mumford 1967; Shepard 1998b [1982]). One sees this transformation even in the term *culture*, which derives from the Latin *colere*, meaning to till, cultivate, dwell or inhabit, and which in turn traces back to the Indo-European root, **Kwel-*, meaning to turn round a place, to wheel, to furrow. The term culture originates in a conception of cultivation, reflecting this changed relation to controlling the plants, animals, and environment. The original meaning also implies the plow, and with it, technology. Manuring, plowing, and transforming land through domestication and agriculture may thus be implicated in **Kwel-*, even as “the culture and manurance of minds”—as Francis Bacon expressed in 1605—showed the original earthy agricultural sense, as well as the emerging transferred use to mind and meaning. In this sense one might say that the culture of this man’s apartment and the plants he kept went back to the origins of the word culture itself. Similarly, the term *material*, as in materialism, reveals an unexpected history, being rooted in a term for the base of the trunk of the tree, the life-giving *mater*, or mother. Strange, isn’t it, how the term *materialism* came to signify inanimate things instead of the basis of life-giving itself?

A further contraction of consciousness occurred, from *anthropocentric mind* to that of the modern worldview, or what I call *mechanicocentric mind* (Halton 2007). Its chief model was the clock, which, since the fourteenth century, had become a dominant symbol in Western consciousness, reshaping and rationalizing daily life, work discipline, and the very conceptions of time and space (Mumford 1970, 1986; Thompson 1967). The universe itself became redefined as a vast clockwork. As Kepler put it, “My aim is to show that the heavenly machine is not a kind of divine, live being, but a kind of clockwork” (Crosby 1997:84). Who would think that what has long since been an everyday object could have impelled such revolutionary changes into being?

To call a clock “material culture” is to draw attention to how culture manifests itself in communicative practices, which include language, beliefs, and skills, but also how it includes material embodiments as well. A traditional wristwatch, for example, is a microcosm of global culture, encoding a combination of the Babylonian base 60 counting system, the Greek decimal system, Arabic numerals originally developed in India, and two divisions of 12 hours each, deriving from ancient Egypt. A clock is a material object and a technological product; it is also a communicative sign involving the skill one needs to read it, the language of numbers, words, or symbolism needed to decipher it, and the belief not only that it indicates time, but that abstract clock time accurately represents time.

A simple clock is then simultaneously a manifestation of material culture and technoculture. But it can be any number of other things as well, for things may not always be what they seem. Just as the clock came to symbolize the modern mechanical universe, a timepiece can symbolize personal memories, status aspirations (as my students testified to when asked whether they would want to have a Rolex watch); the same applies to a gift from loved ones or co-workers, or even a trophy (as the one that I once won in a track meet, tucked away in the back of my desk). The meanings of things are various, and finding out what they are requires a variety of approaches, from simply asking people what their things mean or observing how they use or do not use them, to backtracking their history, or contextualizing them in broader cultural context.

Material culture and technoculture not only provide openings to study culture, but raise questions about contemporary materialism and technology more generally as well. Consumption is clearly a driving force on the globe today, powering economies, promising identities, providing a cornucopia of commodities. Technoculture is at its center, both in material devices and in the ideas they communicate about how what one has affects what one is and can be. Though Emerson said more than a century and a half ago that “things

are in the saddle, and ride mankind," the ride has only galloped ever quicker. Material technoculture is in the saddle, riding with something like the speed of Intel cofounder Gordon E. Moore's law of exponential growth every 2 years. Computers, cell phones, all of them make a world like Alice's (from *Through the Looking Glass*), where "it takes all the running you can do to keep in the same place."

But why should things run us? Isn't technology a means, like any tool, for living? Shouldn't material objects be materials for life? The problem of materialism is not whether to have materials for living, but in allowing them to become goals in themselves.

A device, when correctly used, is a means to human purposes, ultimately a pragmatic means to the good life. Clearly, contemporary devices of technoculture, such as the computer I am typing this on, can serve to enhance our lives. Yet when misused, a device can become a goal unto itself, as when a cell phone or video game dominates a teenager's (or an adult's) life.

What if we consider devices as slaves that ought to be dominated? The Czech word *robota* means slave-like labor. Electronic devices are robotic conveniences, our dominion as masters over them assures that they serve us and not vice versa. To even consider the devices of technoculture as slaves at first sounds so politically incorrect. A slave is a mere *means*, which is why human slavery is evil, in treating fellow humans as means instead of beings with their own ends. But remember the old term servo-mechanism? We did not eradicate slavery in modern life, but only transferred it onto devices, which seem ever increasingly to dominate everyday life. Hegel's dilemma of the master and slave relationship is still there, but transformed. The danger of relying too heavily on automatic culture is that we become dominated by it, and the original goal of technology as serving human autonomy becomes reversed: we become more automatic as the devices seem to become more "autonomous."

When the means of life found in material objects, such as the devices of technoculture, become ends that usurp the good life, the result is a dehumanized end that could be called *the bad life* (or if you do not like that, *the not so good life*). Mumford (1963) identifies this tendency to unchecked expansion of technoculture with the megamachine in its ancient and modern variants, what he termed *authoritarian technics*. In contrast, objects and techniques kept in their limited place as means to the good life are what he termed *democratic technics*.

I view such limited use of material culture as *instrumental materialism*, the use of objects as means to realize goals, in contrast to *terminal materialism*, or the treating of things as ends instead of instruments of life (Halton 2008:227).

Hence mastery of technical devices, the treating of them as servants and means, involves using them as instruments for self-determination, autonomy, and the common good. It also involves limiting their use, knowing when, and even how, to shut them down (as the story of *The Sorcerer's Apprentice* illustrates). Such mastery of the thing allows one to be vulnerable to life, rather than be armored off from it by the things one surrounds oneself with.

So consider that Chicago apartment with the fuchsias and nuclear control rod. It was just a living room, one doubtlessly long since moved from or disassembled. But in this little living space was a micromaterial history of technoculture. Here was the fruit of citifying domestication, embodied in the array of high-status flowering plants, none of which were there to be eaten, only to be enjoyed and admired.

Here too was the clock, symbol of the modern rational-mechanical universe, embodied in the lighting and watering timer devices of this floral-mechanical living room, signifying liberation from diurnal cycle and season. So too was the control rod both a kind of radioactive clock and a sign of human liberation from solar energy through nuclear fission. We extracted the rational-mechanical elements of ourselves, projected it onto the heavens, measured it with precision, and declared the physical universe a vast clockwork and measure of all things. We fell into materialism, and more recently into technomania, elevating the automatic aspects of life while too frequently losing sight, it seems to me, of our place in the communicative community of life.

I have given you a "big picture" way of looking at this man's things, which allowed me to show a history of material culture and technology through them. I could also have examined other dimensions, how, for example, his early childhood in a wealthy North Shore Chicago suburb and his mother's garden might figure psychologically into his plants and their meanings. But this is simply to say that there are any numbers of other ways through which to view the meanings of things and technoculture, as you will see amply demonstrated in this book.

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Introduction

Phillip Vannini

The drive to work was awfully cumbersome today. Two accidents—each with its own mile-long backup—treacherous road conditions, and heavier-than-normal Monday morning traffic led to a very late arrival to the office and in a lot of lost patience. The primary cause behind all this? A wildly unusual mid-April snowfall that made roads slippery and drivers edgy.

Now, why in the world—you must be wondering—is this worthy of concern in the opening of this book? Well, because—as it turns out—this is precisely the subject matter of this volume. No, not the snow itself, but rather the technological and material character—or in other words, materiality—of everyday life of which the snow, the roads, the size and weight of the vehicles driving on them, the technical skills of drivers, the quality of tires, the density of traffic, the meanings of driving, the road infrastructure offering (or not) commuters alternative routes—and the availability of maps and GPS systems to find out about such routes—as well as the air temperature (only to mention a few) are great examples. Indeed, this is a book about what makes everyday life possible (and at times, like this morning, difficult) stuff. Or, in more technical terms, material culture and technology.

So what kind of stuff are we talking about when we say “material culture” and “technology”? In a way, it really depends on whom you ask. If you asked lexicographers they might suggest that “technology” refers to the “practical application of knowledge” or a “capability given by the practical application of knowledge” and even a “manner of accomplishing a task” (*Merriam-Webster’s* online dictionary). According to the same folks “material,” on the other hand, refers to something “relating to, derived from, or consisting of matter” (we won’t ask them about “culture” for now). In contrast, anyone “off the street” might give you a simpler set of definitions. Technology for them might refer to machinery, gadgetry, or devices with which one accomplishes instrumental tasks, whereas material could simply denote objects or things. This is simple enough so far: both the erudite writers of our dictionary and Joe and Jane Average would agree that technology is about doing, knowing, and using objects and that materiality is about the character of those objects. Given that the concept of culture, broadly speaking, refers to practices, bodies of knowledge, ways of engaging the world, and so forth, we might be tempted at this point to claim that to speak of technology or to speak of material culture is basically the same thing. But we should not. At least not just yet, and at least not in those terms; as the good academics that we are, both you and I, it behooves us to complicate things a little bit before we reach a conclusion. So shall we?

Material Culture and Technoculture

To suggest that the subject of this book is both technology and material culture is to imply that these two topics at the very least have something in common, and that perhaps they are even somewhat of the same entity (cf. Eglash 2006). Indeed it would be wrong to disagree with the validity of that implication. To realize this better it is best to situate our comprehension in the pertinent academic research and theoretical traditions rather than in the common or the lexical understanding of technology and material culture. In doing so we will have a deeper grasp of what this book is about. Now, to get there one can find at least three such traditions to borrow from traditions clearly tangible if you were here with me in my office and could see the three neatly stacked piles of books and articles crowding my desk.

The first stack, or tradition, is about the contemporary study of material culture, or as some refer to it, modern material culture studies (e.g., Buchli 2002b; Miller and Tilley 1996; Tilley et al. 2006). Modern material culture studies attempt to rediscover the significance of objects not only in terms of their role in economic exchange, but also (and more importantly) in terms of their cultural role (see Appadurai 1986; Douglas and Isherwood 1979; Gell 1998; Strathern 1988)—a role historically considered secondary in most social scientific disciplines traditionally more interested in what is “behind” (e.g., values, beliefs, mind, collective consciousness, social structures, etc.) material objects (Buchli 2002a; Knappett 2005; Miller 1998). As Miller and Tilley (1996) have stated, material culture studies is an interdisciplinary field—though it is obviously deeply rooted in social anthropology and ethnoarchaeology.¹ Regardless of this tendency the contemporary study of material culture is an open discipline, both theoretically and methodologically, with a common concern: processes of objectification, through which humans shape, and are shaped by, the materiality of life (see Miller 2005; Tilley 2001, 2006; Woodward 2007). More on this later.

The second stack of books and articles on my desk is about the social aspects of technology. This is a very diverse pile that comprises writings on the anthropology of technology (e.g., Ingold 2000; Lemonnier 1993; Pfaffenberger 1988, 1992), science and technology studies (STS) (e.g., Latour 2007), the philosophy of technology (Scharff and Dusek 2003) and cultural theory on technology (e.g., Haraway 2003; Penley and Ross 1991), communication and cultural studies (Carey 1989; Cowan 1983; Du Gay et al. 1997; Fischer 1994; Silverstone and Hirsch 1992; Slack and Wise 2007), the sociology of technology and science (e.g., Clarke and Olesen 1998; Star 1995), the social construction of technology (SCOT) (e.g., Bijker, Hughes, and Pinch 1989;

Bijker and Law 1992; MacKenzie and Wajeman 1999) and within it especially the subfield of technology users (Oudshoorn and Pinch 2003).² Despite their diversity most of these scholars would agree on the idea that social relations in all societies are heavily mediated by technological arrangements, and that therefore technology (as a form of social organization) is a key player in society and culture.

Despite the similarity—or at least the contiguity—of the concerns of material culture studies and technology studies, not much cross-proliferation has seemingly taken place (for recent exceptions see Eglash 2006 and some of the literature cited therein; Pinch and Swedberg 2008). One might argue that in part this is due to the different geographical origins of these fields—the first being decidedly more British and in lesser part French, and the latter being decidedly more American. Or one might argue that it is instead due to the remnants of disciplinary boundaries (with material culture studies being decidedly more anthropological and technology studies being definitely more sociological). But whatever the causes may be, we can safely agree that such boundary is the result of accidental practice instead of motivation and planning (see chapter one). Material culture studies and technology studies have much in common, and for this reason they should be drawn in closer dialogue. This book is written with that intention.

As each of the chapters in the following pages shows, to study material culture is to study the technological underpinnings of culture, and to study technology is to study the material character of everyday life and its processes of objectification. What is central to such a view is an understanding of sociality and culture as a form of *making, doing, and acting* and an understanding of the world as a material presence apprehended by humans through pragmatic, sensuous intentionality. In comprehending culture as deeply shaped by *techné*—that is, craft, skill, creativity—and in viewing social interaction as a process rich with material properties we do not intend to either reintroduce antiquated notions of instrumentalism or essentialism. Rather, we simply intend to remark on the importance of treating everyday life as an active form of negotiation—a form of work as it were—that engages the colors, the textures, the tastes, the fragrances, the sounds, the temperature, the kinaesthetic movement, and the practical and symbolic value of the stuff that makes up life.

If bringing together the tradition of material culture studies and technology studies is a key concern of this book, so is achieving that goal through methodological and epistemological means that expose the meaningfulness and polysemy of materiality, and the potential of technological relations for shaping culture (and being shaped by it). For us what that means is

ethnography: the subject of the next reflection. But before we get there it is important to realize that we have come full circle in our own understanding of technology and material culture, and in claiming that the semantic differences between these expressions are more the result of putative scholarly practice than ontological reasons. Thus, throughout this book, I and every other author will refer to *material culture* and *technological culture* (or *technoculture*) interchangeably. These expressions point to an emergent process consisting of the interaction between human actors and nonhuman actors—all acting with their strategies and techniques, endowed with material properties. Also, by using interchangeably the words “material objects,” “things,” “technics,” “technological devices,” or similar expressions we will refer to the same thing: the resources (cf. Gibson 1979; see also Van Leeuwen 2005) that actors use for instrumental and symbolic purposes. In fact, we will view the difference between instrumental and symbolic purposes (and the related dissimilarity between function and style) to be hindering more than helping our agenda, and for this reason we will explicitly blur the boundaries between action and communication. When different concerns and arguments force some contributors to favor the use of certain expressions over others, we ought to keep in mind that their lexical choices are motivated by their need to treat different empirical subject matter with attention to detail, rather than to reify categories by erecting unnecessary boundaries among them. With that in mind, each chapter of this book will feature various approaches and highlight different angles of our common subject matter. Indeed variety and diversity are the strength of any edited book. Yet the chapters that follow have their origin in the shared understanding that technology is never in the things themselves, in materiality alone, in the techniques and strategies of makers or users alone, in the selves and collective identities of makers or users alone, in the discourses encompassing the interaction between human and nonhuman actors alone, but rather in the process whereby all those entities interact and give form and content to our world. To speak of technology, therefore, will entail speaking of technoculture or material culture. And to speak of materiality, therefore, will entail speaking of material culture or technoculture.

The third and last stack sitting on my desk consists of books on ethnography. Traditionally rooted within both cultural anthropology and classical urban sociology, ethnography is now one of the most common research strategies across the social sciences, and one that is currently enjoying an impressive outburst in creativity, scope of applications, and diversity. While there are many types of ethnography, its defining characteristic resides in the researcher's attempt to understand realities from the perspective of those he/she wishes to study. In practice, this form of epistemological relativism

translates into data collection methods such as (different combinations of) participant and nonparticipant observation, conversations and interviewing, analysis of records, texts, material objects, and reflection and introspection. In its focus on mundane practices of social actors, attention to context, and emphasis on agency and interaction (Adler, Adler, and Fontana 1987), ethnography is the everyday life research strategy par excellence. While there are other research strategies that could direct us on the everyday life aspects of material culture and technoculture, in this book we focus specifically on ethnography alone because we find that its application to the subject matter of our field—while already prolific and successful—requires reflection and further development.

In particular, we aim for methodological reflection that can allow us to surpass—or at least be more cognizant of—the limitations of traditional ethnographic research strategies in relation to material culture and technoculture. An example ought to shed light on the nature of these limitations. Suppose—to return to the opening of this introduction—that we wished to study the meaningfulness of an unusual mid-spring snowfall in relation to the value of mobility and the technological infrastructure of roads in a particular geographical area. What information could an ethnographic research design provide us with? Observation from the roadside or the cocoon of your car—if you are lucky enough to be caught in traffic as it is happening—might yield impressions, reflections, and experiences of driving in such conditions. A later search through publicly available data on traffic and road infrastructure, as well as on historical weather records, might give us further knowledge to put our observations in proper context. But those data—even when rich in volume and detail—could be insufficient for our scope. As most ethnographers do, we might then decide at the end of the day to interview drivers who were caught in the snowstorm. And here is where both our methodological potential and problems might begin to be obvious. Even assuming that a sample of drivers is promptly available and enthusiastic enough to dedicate sufficient interview time to us (and this may be difficult, given how reticent some people may be to invest time on reflecting on such mundane matters), we will inevitably run into the difficulties of gathering interview data that are sufficiently insightful, or in other words not thick enough, for our purpose. This is no one's fault; after all who—even among the most eloquent and articulate of us—would have detailed answers for interview questions directed at uncovering the meanings of unseasonal (or seasonal for that matter) snow precipitation, the values underlying highway mobility, or the significance of studded winter tires. Even in the best case scenario ethnographic interviews of that type might yield either the kind of practical