



mike michael

reconnecting culture, technology and nature •
from society to heterogeneity



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Mike Michael



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Reconnecting Culture, Technology and Nature

Everyday life is increasingly mediated by technology, but most of the literature on the subject talks only in terms of radical changes. In *Reconnecting Culture, Technology and Nature* Mike Michael uses case studies of mundane technologies such as the walking boot, the car and the TV remote control to question some of the fundamental dichotomies through which we make sense of the world. Drawing on the insights of Bruno Latour, Donna Haraway and Michel Serres, the author elaborates an innovative conceptual and methodological framework through which new hybrid objects of study are creatively constructed, tracing the ways in which the cultural, the natural and the technological interweave in the production of order and disorder. This book critically engages with, and draws connections between, a wide range of literatures including those concerned with the environment, consumption and the body.

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Mike Michael
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1 Introduction

Situating technology and technologizing situations

There are no humans in the world. Or rather, humans are fabricated – in language, through discursive formations, in their various liaisons with technological and natural actors, across networks that are heterogeneously comprised of humans and non-humans who are themselves so comprised. Instead of humans and non-humans we are beginning to think about flows, movements, arrangements, relations. It is through such dynamics that the human (and the non-human) emerges. This book is about the complex processes of such fabrication. It is concerned with the ways in which the human is not simply ‘tied to’ – that is, an ambiguous product of – the social (however that might be formulated), but also ‘tied to’ much more – the technological, the natural.

But of course those entities that fall into the categories of the technological and the natural are no different. They are ‘tied to’ the social: a technology only ‘works’ because certain configurations of the social, the technological and the natural are in place. Nature’s particular recalcitrance, nature’s evident bounty, partly and complexly, rest on the conduct of networks of humans and technologies and natures.

Consequently, a key task of this book is to make a small contribution to the unravelling of some of these connections. It is to place the social in a complex, heterogeneous nexus of entities and flows. In addressing an audience of ‘social scientists’, the (gently evangelical) aim is to show how a number of categories typical of the social sciences are shot through with the technological and the natural.

However, to phrase the issue in this way is to fall back on some of our most well-established concepts: nature, society, technology. This is not necessarily a bad thing. At the very least it hints at the fact that, in order to do justice to the complexity of the connections between nature, society and technology, what is needed is a collective effort at breaching the disciplines (very generally, the natural and social sciences) that serve to keep these concepts distinct. Following in the path of various scholars, I hope to demonstrate how, with a relatively slight shift in perspective, it becomes very difficult to disentangle the traditionally discrete entities and processes of the traditionally discrete disciplines. They flow into each other. As a result, what becomes possible is a rethinking of the categories of entities and processes that might encompass this intermixing, this heterogeneity. Where

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once, thanks in part to our disciplinary commitments, we contrasted the social, the cultural and the linguistic to the non-human, the natural and the material (often by relegating the latter to the status of 'mere' social constructions), now we are thinking about the ways in which these fold into one another, or dissolve into one another, to produce different sorts of heterogeneous entities and processes.

As is increasingly well known, there is an emergent (although, inevitably disparate) vocabulary that is beginning to address this heterogeneity. Terms such as cyborg, hybrid and monster are increasingly commonplace. In reviewing some of the main perspectives that attach to this terminology, I will compare and contrast a range of concerns that inform them. These include the implied positioning and politics of the 'author' of cyborgs or hybrids, the analytic role of such macro-sociological categories as globalization and consumption, the character of agency and the relative status of culture. In the process, I will develop my own peculiar version of these heterogeneous admixtures and their doings. What will be particular about my versions of hybrids or cyborgs or monsters (what I shall call co(a)gents) is that I attempt to sketch these out in some detail in order to show how they came into being heterogeneously – that is, I explore how specific technologies, bits of bodies, aspects of nature, parts of culture, and traditions of discourse come together in the production of co(a)gents such as the 'couch potato' or the 'road rager' or the 'seeker of the natural sublime'. All of these entities I find 'out there' in everyday life; sometimes they are explicitly articulated in popular culture, sometimes they are in the process of being conceptualized, sometimes they are in need of a little discursive prompting, that is, I need to 'invent' them.

However, over and above this, a key purpose of this text is to follow through the theoretical implications of what it would mean to treat these hybrid entities as the 'objects of study'. Notions such hybrids, cyborgs and monsters have been used, profoundly and rightly, to deconstruct traditional academic categories and to demonstrate the heterogeneous connectedness of entities that we have kept distinct by virtue of our specialist intellectual affiliations (e.g. to sociology as opposed to biology). Thus, entities such as nature, culture, the human body, the social agent, and so on, that were once regarded as discrete and unitary, are now being deconstructed to reveal their distributedness and interconnectedness: nature and culture, corporeality and agency are not distinct, they contribute, in complex ways, to each other's constitution. This is all very important – it is an endeavour to which I will, I hope, be contributing in this book. However, in addition to this, I want to begin to think about what it means when we draw upon or invent particular hybrids (for example, the 'couch potato' as a popular term used to describe people who laze, remote control in hand, on the sofa in front of the TV), and then treat these *seriously*. What work might the formulation of a new hybrid entity do for us analytically? By taking a figure such as the couch potato seriously, what light might it throw on, for example, relations of power within the family, or subcultural identity? More specifically, how does it enable us to explore the variegated roles of mundane technologies such as sofas and remotes in these social processes? In sum, by taking up this strategy, I want to explore the range of

otherwise unrecognized connections that contribute to, flow through, and extend from, such hybrids.

There is another dimension to this work that I need to address. Much work on hybrids, particularly the cultural studies influenced analysis of cyborgs (sometimes known as cyborgology), has tended to focus upon what might be called the most 'exotic' of technologies. For example, it is innovations in particular technoscientific domains – information technology and biotechnology are iconic in this respect – that are regarded as crucial in the reshaping of the social, the cultural and the human. Indeed, the exoticism of these technologies lies, in part, in our perception of their present role in changing, in some fundamental way, say, the organization of society (e.g. are there new stratifications emerging?), or our conceptions of ourselves (e.g. are there new models of kinship or cognition developing?). In contrast, those studies of the role of technology that have come out of the tradition of the sociology of scientific knowledge have also focused on more mundane technologies. Here, we can say that 'mundane' refers to those technologies whose novelty has worn off; these are technologies that are now fully integrated into, and an unremarkable part of, everyday life. To study mundane technologies is thus to explore how they mediate and reflect everyday life, how they serve the production and reproduction of local social configurations. In this respect, my work can be said to fall within the emerging field of studies in 'material culture' (see Dant, 1999, for an introduction; also the *Journal of Material Culture*).

Needless to say, there is no clear dividing line between these two endeavours. The distinction between mundane and exotic is, of course, spurious. After all, the mundane often entails the most exotic of technologies in its construction, and vice versa. For example, walking boots may be 'mundane' technological artefacts, but in their design, production, distribution and marketing, the most exotic of technologies are involved. For example, as we shall see later, information technology – such as the internet – serves as a prime medium for the advertisement and assessment of walking boots. Conversely, 'exotic' technologies are realizable – that is, can work – only by virtue of the fact that various mundane technologies are in place: the light bulbs that illuminate the laboratory benches of biotechnologists, the chairs and desks of the information technologists who oversee our servers.

Despite the highly porous boundary between the mundane and exotic, the distinction does serve a key purpose. Exotic technologies (and sociotechnical systems), as we have seen, can be said to be instrumental in the reconfiguration of our conceptions of the social and of nature (out of very many such accounts, see for example, Appadurai, 1990; Gergen, 1991; Strathern, 1992). They challenge our existing understandings of who 'we' are, what society is, the status of expert knowledge, the role of technology, the value of the natural. Exotic technologies can, then, be said to mark epochal cultural shifts. As such, they are the objects of extended academic and popular reflection. In contrast, mundane technologies have lost their novelty and now linger in the background, doing their 'job' largely outside the intense discursive glare that attempts to capture the exotic. Yet it is these very mundane technologies that not only serve in the (re)production of the

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exotic, but also constitute the ‘normality’, the ‘ordinary’, the ‘invisible’ even, against which is set the strange. Moreover, in the interstices of the everyday where mundane technologies quietly go about their business of sustaining normality, we find all manner of little ‘abnormalities’. These mundane technologies do not simply furnish order (against which are contrasted the upheavals rendered by exotic technologies), they also resource disorderings. Thus, our everyday ‘habitual’ routines that involve these technologies can also encompass little disruptions and subversions that, perhaps, lead to grander changes. Thus, I want to explore how mundane technology, heterogeneously, that is, both materially and semiotically, at once reinforces and undermines the typical arrangements and processes that comprise everyday life. These ‘typical arrangements and processes that comprise everyday life’ are themselves heterogeneous of course – they entail other technologies. They incorporate social and cultural entities and relations, and they entail the ‘natural’ – bodies, environments, animals.

In sum, it is in the role of mundane technologies as what Bruno Latour (1992) has called the missing masses that I am interested. As ‘missing masses’, these artefacts – unnoticed, everyday, always present – serve in the processes of heterogeneous ordering and disordering. That is to say, these mundane technologies, which, let us recall, are heterogeneous insofar as they entail both the social and the material, at once contribute to, and disrupt, the unnoticed, everyday, always present co(a)gents that populate our world. By exploring these quotidian technologies (and mundane hybrids), I am aspiring to follow in the footsteps of Arendt’s (1992) version of Benjamin, who is fascinated by the way that the smallest – the least noticeable – encapsulates an epoch.

Developing technologies

So this book is partly about the role of mundane technology in heterogeneous ordering and disordering. But what of the way that the social sciences have narrated technology? It goes without saying that the stories told about technology are many and complex. Wiebe Bijker (1995a), in his excellent overview of sociohistorical technology studies, ranges over a wide variety of perspectives that he arrays along a continuum. At one pole there are those perspectives that regard technology as determining the social; at the opposite pole there are those that view the social as determining the technological. This continuum assumes that technology plays a key part in the modern social world, enabling some groups, disabling others: it is, through and through, political. However, as Bijker asks: ‘How do artifacts acquire their politics? Is it bestowed upon them by their users or is it “baked into them” during their construction?’ (Bijker, 1995a, p. 237, also see, for example, Winner, 1985, 1993; Russell, 1986). That is to say, are the politics they do and the discriminations they exercise part of ‘what they are’, or due to their use by persons? The contemporary answer to this question is, unsurprisingly, ‘both’. As Bijker (1995a, p. 214) puts it: ‘... a general pattern can be recognized in which the study of technology and society has been developing. This pattern can, very schematically, be characterized as a sort of slow pendulum movement – a

dampened oscillation'. First technological determinism, then social shaping; now, oscillating in the middle are a number of approaches that examine the mutual determination of both these factors. From alternately privileging the social and prioritizing the technological, the role of both is emphasized nowadays: these shape one another in complex knots.

There are a number of perspectives in the sociology of technology that occupy this middle ground where the social and the technological are regarded as mutually determining. I will consider three, examining in detail one. Firstly, there is the systems approach associated with Hughes (1983), secondly there is actor-network theory (ANT), thirdly there is the social construction of technology approach (now developed into the technological frame approach – cf. Pinch and Bijker, 1984; Bijker, 1995b). The first has, in large part, been concerned with the entrepreneurial development of large sociotechnical systems. Its aim has been to unravel the way that technical systems take on a momentum of their own, even while these are thoroughly interwoven with the social, the political and the economic to form a seamless web. Central to this approach is the way that large-scale technologies (e.g. electricity systems) are developed and integrated into these other systems. While these sorts of issues form the backdrop to much that will be addressed in this book, they do not bear directly on the purposes of the current study. Discussion of the second perspective will be deferred until the next chapter – suffice to say here that a core attraction of the actor-network approach has been its willingness to treat the 'natural' seriously, and it is some of the implications of this feature that will be explored in this book. The third of these perspectives is particularly interesting here for it concerns the way that technological innovations are, at least in the initial introductory phase, interpretatively flexible – that is, many of the actors involved, including, sometimes, users, interpret and thus constitute these artefacts in markedly different ways. This increasingly sophisticated approach (which shares a number of common concerns with ANT) is fundamentally concerned with how such flexibility is closed down. In the following discussion, I will consider this process of 'black boxing' or stabilizing the meaning of innovative technological artefacts in order to draw out further my own concerns.

In Pinch and Bijker's (1984) now classic analysis of the development and establishment of the bicycle as we know it today, a number of relevant social groups are identified (e.g. young men, women, elderly men). For each of these groups, the ordinary bicycle (more commonly known as the penny farthing) was seen as containing a different set of meanings: for young men, it was a splendid racing vehicle; for women it created difficulties for their dress; for elderly men, it posed safety problems. According to Pinch and Bijker, adopting and adapting the dictates of the strong programme and the empirical programme of relativism in the sociology of scientific knowledge (Bloor, 1976; Barnes, 1977; Collins, 1985), it was a different object to each of these groups: there was interpretative flexibility. Pinch and Bijker go on to trace how the variety of meanings was reduced, and how this flexibility was abated. There are two interwoven aspects to this process – closure and stabilization. In the former, which Bijker (1995b) associates with the reduction of technological artefacts *amongst* relevant social groups, interpretations

are reduced through such mechanisms as rhetorical closure (say by a redefinition of the problem the technology solves). Stabilization refers to the ways that interpretative flexibility was reduced *within* relevant social groups. Through such mechanisms, then, the meanings of artefacts are settled with the result that some survive to be extensively used, while others perish, or are consigned to the museum as technological oddities.

Now, an issue with this sort of analysis lies in the notion of the relevant social group, which Bijker (1995b) directly addresses. On the one hand, there is a political danger of neglecting powerless groups – inclusion of such marginal groups is an interpretative matter of judging what groups and issues are relevant to the case of technological development under study. On the other hand, there is the epistemological issue of the status of the relevant social group: is it an actor's category, or an analyst's? Bijker suggests that there is no simple equation between these versions. Rather, he seems to be saying that there is a need to be judiciously sensitive to the categories of actors: one needs to avoid naive use of actors' categories lest one miss out on relevant social groups that are absent from the histories that such actors deploy. Contrariwise, one also needs to avoid imposing categories lest one produce a distorted account.

We can frame this issue another way. Bijker argues that the interpretations available to relevant social groups are limited. This limitation flows from the technological frame within which such groups are embedded: 'Previous meaning attributions limit the flexibility of later ones, structures are built up, artifacts stabilize, and (technological) ensembles become more obdurate' (Bijker, 1995b, p. 282). The notion of the technological frame is meant to capture the structures that are inherent in interactions among the individuals who comprise a relevant social group: '[a] technological frame is built up when interaction "around" an artifact begins. . . . If existing interactions move members of an emerging relevant social group in the same direction, a technological frame will build up . . .' (Bijker, 1995b, p. 123).

The technological frame is a concept somewhat akin to Kuhn's notion of paradigm: it 'comprises all elements that influence the interactions within the relevant social group and lead to the attribution of meanings to technical artifacts' (Bijker, 1995b, p. 123). These elements include: goals, key problems, problem-solving strategies (heuristics), requirements to be met by the problem solutions, current theories, tacit knowledge, testing procedures and design methods and criteria, users' practices, perceived substitution function (what might a new artefact replace?), exemplary artefacts.

According to Bijker, his concept of a 'technological frame' is designed to capture two dimensions of the relation between the relevant social group and the artefact. On the one hand, there is the social interactionist element: relevant social groups, in attributing different meanings to artefacts, constitute them. In cases of different meanings, there is interpretative flexibility which is closed down when consensus is established (cf. Bijker, 1995b, p. 194). On the other hand, the artefacts themselves are stabilized semiotically, and in this they are meaningful to different relevant social groups (Bijker cites the example of celluloid which 'speaks to'

celluloid chemists, moulders, pressing machine designers and so on). The technological frame is thus ascribed by Bijker a special ontological status as a 'hinge' between social groups and artefacts – it is a means of getting around 'irreconcilable differences between social determinism and technical determinism' (Bijker, 1995b, p. 196).

However, as Rosen (1995, 1993) argues, there are numerous other factors that can contribute to this sort of frame. He notes, for example, that the processes and relations of manufacture (like post-Fordism) can be a key factor in the meaning attributions to innovatory artefacts (see also Mort, 1995). More relevant in the present context is the factor of culture. Rosen shows how the emergence and stabilization of the mountain bicycle is linked to broader cultural shifts (e.g. postmodern culture).

On a less grandiose scale, we can point out that the individual relevant social groups do not simply reduce the meanings of technologies, they are also involved in the proliferation of meanings. This is because – especially in the process of consumption – a relevant social group is a multiplicitous entity. Individuals cut across categories. Indeed, the borders of a relevant social group are highly pliable, and it is part of the aim of technologists to stabilize these (this is what ANT is particularly good at addressing). Conversely, the technological artefacts themselves do not simply, through the technological frame, 'appeal to' certain social groups. Or rather, these technologies are polysemic – as we shall see in relation to the car and road rage, the semiotics of the car are complex and contradictory within individual relevant social groups. Technological development can go in many directions (e.g. more speed; more efficiency; more safety and so on) and the support for these various directions maps, in tortuous ways, onto relevant social groups (for example, people are both users of cars and are pedestrians – these are not necessarily singular relevant social groups, but hybrids shot through with ambivalence).

As an example of this cultural complexity, we can briefly consider Nik Brown's (1998) analysis of the promotion of xenotransplantation (see also Birke *et al.*, 1998). What Brown unravels is that, in the process of promoting xenotransplantation (specifically the technologies concerned with the genetic modification of pigs so that their hearts can be transplanted into human bodies), a whole range of cultural resources are mobilized, both by the promoters (biomedical entrepreneurs) and other relevant social groups (e.g. patients and their families, animal rights activists). The technological frame is very quickly seen to spin out to incorporate, or rather interweave with, a broad array of cultural concerns. Thus, there is the issue of hope – the xenotransplantation technological frame tacitly draws upon a long tradition of thinking about the role of hope not just in healthcare, but more generally, in life. This frame also engages with anxieties over the divide between the human and the animal, most obviously evidenced in the 'yuk' or disgust factor associated with such medical procedures (Brown, 1999). These takes on xenotransplantation might be contradictory, but they can coexist within the technological frame. The point is that a technological frame is partly characterized by such broader cultural dimensions, and these enable technological

artefacts to constitute and 'address' relevant social groups, and relevant social groups to interpret artefacts in complex and ambiguous ways.

While Bijker's concerns are somewhat different from my own (Bijker is concerned with how emergent artefacts become stabilized, I am interested in how mundane artefacts contribute to processes of ordering and disordering), his approach serves to throw into relief one particular issue that will be addressed below. This concerns the complex role of culture. Manufacturers of technological artefacts, in contributing in one way or another to the culture of users (consumer-relevant social groups), serve in shaping those users' identities, rendering them more or less receptive to those artefacts. But the culture of users, as we have seen, is riven, fragmented, shifting. This point can be further elaborated in relation to those studies that deal with the complexities of technological use – say in the domestic sphere, or within subcultures. It is to some of these that I now turn.

Domesticating technologies

Cowan (1987) has noted that Pinch and Bijker's notion of the relevant social group is hard to pin down empirically. As in the above argument, she points to the 'infinitely expandable universe of relevant social groups' (Cowan, 1987, p. 262). In trying to pin these down she focuses upon what she calls the 'consumption junction'. At this complex node, where technologies are diffused, where technologies are chosen, we face a major analytic problem: 'consumers themselves come in many different shapes and sizes; indeed, any single human being can enter the consumption junction under a number of different guises, depending on what it is that is being consumed' (Cowan, 1987, p. 263). But this is not necessarily a problem; rather, Cowan suggests, it 'reminds us that we must define consumers in terms of the artifact about which consumers are making choices' (Cowan, 1987, p. 263). It also enables us to unpick how these choices are structured – how they are shaped by a set of ostensibly tangential factors that might concern, for example, labour relations, transport systems, other industrial developments. In some ways, Bijker's elaboration of the technological frame captures this; and yet, it is also too constrained, for the relevant factors cannot be identified through specific study only of the technology itself. As Cowan (1987) notes: all sorts of other histories need to be drawn upon – demographic, economic, industrial and, we might add, cultural.

Extremely important as Cowan's formulation is, it does not enter fully into the complexity of the acts of consumption (although see Cowan, 1997). Here, we need briefly to examine some of the ways in which the consumption of technologies has been theorized. Having said this, we do need to be wary of reifying 'consumption': for all its apparent centrality in what is said to be an increasingly globalized world (e.g. Lash and Urry, 1994), historical and anthropological studies show that the introduction of technology into certain communities does not make members of those groups 'consumers' in some universal sense (especially when we are analytically sensitive to the context of cultural difference and colonialism – see, for example, Miller, 1995; Wallace, 1993; Pfaffenberger, 1992a, 1992b).

Lie and Sorensen (1996) provide a sophisticated outline of the ways in which technologies are integrated into everyday life. For Lie and Sorensen, consumers cannot be passive: in integrating technologies into everyday life, we adopt and adapt technologies, we shape, and are shaped by, them. Drawing on the work of Silverstone *et al.* (1992), Lie and Sorensen see this metaphorically as a process of domestication: 'we tame the technologies that surround us in everyday life. This process of taming is characterized by reciprocal change' (Lie and Sorensen, 1996, p. 8). Thus, 'users/consumers make active efforts to shape their lives through creative manipulation of artefacts, symbols and social systems in relation to their practical needs and competencies' (Lie and Sorensen, 1996, p. 9). It follows that consumption is also a process of production. The process of such integration into everyday life routines is at once practical and symbolic: local routines and symbolic codes may be adapted as technologies are domesticated. These changes might be smooth, or they might be agonistic; conflicts might be resolved or they may remain open. But to put it in this way is to underplay the fact that these authors and numerous others (see, for example, Grint and Gill, 1995; Cockburn and Ormrod, 1993; Wajcman, 1995) are deeply concerned with the relationship between technology and relations of power, especially gender. In the context of 'consumption', Lie and Sorensen stress that technology does not map neatly onto pre-existing gender divisions. Rather, they argue, we should 'shift away from viewing gender and technology as pre-determined' (Lie and Sorensen, 1996, p. 20); in the process of domestication, both gender and technology are negotiated. Sometimes, this domestication reproduces existing gender relations, in other instances there is a subversion of these. In other words, we need to get away from seeing the role of technology as merely reinforcing existing relations of power, from analysing technology in tacitly functionalist terms.

The implication of this argument is that we should be sensitive to the likelihood that technologies in the process of domestication will retain a certain ambiguity. They are multivalent – in Silverstone *et al.*'s (1992) terms (drawing upon and developing Kopytoff's, 1986, and Appadurai's, 1986, notion of the biography of things), technologies in everyday life have many biographies. Thus, as the telephone and the car well illustrate, even 'old' technologies can, under certain circumstances, be re-interpreted and re-appropriated (cf. Hebdidge, 1979; Lamvik, 1996; Vestby, 1996). Further, Silverstone *et al.* note that one aspect of this multiple biography concerns the forging of relations beyond the household – what they call 'conversion'. Thus, technologies enable certain users to re-fashion relations not only within the household, but also beyond it. A nice example that can be drawn from Silverstone *et al.* (1992) is that of young people's use of the stereo. On the one hand, it is a means of creating a wall of sound against parental intrusion; on the other, the stereo serves these young people in establishing and reinforcing relations with peers. Lie and Sorensen likewise extend the concept of domestication to technologies beyond the household/home/family (on the non-equivalence of these, see Silverstone, 1994).

Now, this notion of domestication addresses a number of important issues; but in crucial ways, these differ from the ones I wish to explore in what is to follow.

Thus, we can say that the notion of domestication is generally meant to capture the way that new technologies enter everyday life and how, in the process, that sphere at once accommodates to, and reconstitutes, those artefacts. It is often a question of something from the outside moving into an inside – an ‘other’ being made familiar (which can include both the reinforcement of certain relations of power, and their modification). There is, in other words, a complex mode of integration through symbolic, social and practical reordering and routinization. By comparison, I want to focus upon the already-on-the-inside, routinized, mundane, familiar technologies of everyday life. However, I will also be attending to the way in which such mundane technologies generate a partial disordering – how they are involved in processes of dis-integration and how this operates not only on the symbolic level, but on the practical and material level. To put it another way, I want to look at the way that the inside can go outside, at how the domesticated technology can de-domesticate itself, becoming other, exotic. Part of this involves the fact that everyday life is never purely social – it is always heterogeneously made up of technologies, humans and natures (cf. Crook, 1998, for a discussion of the limits of traditional models of everyday life). These ‘cohabiting’, co-extensive little societies, technologies and natures (which are themselves heterogeneous – see the next chapter) generate a range of possible trajectories for the uses and ‘mis-uses’ (or rather, misbehaviour) of technological artefacts – they enable, as it were, some of the unintended consequences of these artefacts.

One of the great merits of the ‘domestication’ literature is that it explicitly addresses power and gender (amongst other issues such as the status of the public sphere). As I shall argue in detail in the next chapter, at the heart of these power, gender and domestication dynamics is all manner of natures: bodies, environments, animals (cf. Lemonnier, 1993). Semiotically and materially, everyday life – as a process to which mundane technology is crucial – is impacted upon by these natures. My concern, then, is to expand on these accounts of the domestication of technologies by pursuing, albeit in a limited and contingent way, the role that nature plays in the use of mundane technologies to structure relations of power. To reiterate, such uses are highly complex – they entail both the ordering and disordering of everyday life, or, to put it another way, they entail shifting relations of power.

In the studies so scantily described above, the units of analysis – family, individuals, technologies, social processes, and so on – are familiar ones. This book is, in its most hopeful aspect, about thinking through some of the analytic possibilities offered by different units comprised of combinations of humans and non-humans, that is, hybrids, monsters, cyborgs or co(a)gents. Thus, we can explore how these are formed (e.g. in the heterogeneous processes of everyday life) and formulated (e.g. in lay and professional discourse). Indeed, the aim is to go a little further and assume that these hybrid units are simply ‘there’, contingently real entities that inhabit the social and material world – hybrid units such as the couch potato, for example. By looking at how these are, on the one hand, kept together, sutured, and, on the other, broken apart, sundered, we can