Chapter 1

Thinking About Things Differently

Approaches to Things

If we look at some of the ways in which things have been approached in the humanities and social sciences we find a bewildering array from the more semiotic to the more material (Candlin and Guins 2009). Recent approaches, in a strand reaching back to Appadurai's *Social Life of Things* (1986), have explored the many social dimensions of things. Thus, in 'materiality' studies (e.g. Keane 2003b, Meskell 2005a, Miller, 2005b, Pels 1998) the focus is often on the ways things and society co-produce each other (see Chapter 2). Anthropologist Nicholas Thomas (1991) uncovers the role of material objects in the entanglements of colonialism and empire. Bill Brown in his book on *A Sense of Things* and in his development of 'thing theory' examines how things are given new meanings in late 19th century literature (Brown 2001; 2003). Other influential work by Latour (1993) tries to break away from subject-object dualisms and argues for a symmetrical approach to humans and non-humans. Philosophers such as Ihde (1999) explore the ways in which materials and instruments enter into the scientific hermeneutic process (for a different approach in philosophy see Wylie 2002).

As we work through the chapters in this book we will see that a recurrent criticism of these diverse approaches to things is that despite their protestations to the contrary, they could look more closely at things themselves. The approaches, for the most part, explore what things can do for humans in society. So each approach or study takes one aspect of a thing – its symbolism or the labor needed to produce it or its shiny attractiveness or its efficiency in killing an animal or its material links to actor networks – and shows how that particular aspect is made use of, or even

Entangled: An Archaeology of the Relationships between Humans and Things, First Edition. Ian Hodder.

Figure 1.1 A piano at the Mesolithic site of Lepenski Vir (Source: Giovanni Caselli).

constitutes society or what it means to be human. Things are broken up in this way. Each approach or study takes what it wants of things.

As social actors we tend to see things in ego-centered ways, in terms of what they can do for us. We hardly look at them. Our interests are in the effects for us, aesthetic, social, scientific, psychological and so on. But every now and then we actually look at the thing itself, as a whole object, a thing in its own right. We explore its grain, feel its weight, note its color in different lights, marvel at its balance and delicate detail. Of course our interest remains self-serving, and often nostalgic, but there is sometimes a moment of realization that in order to understand the thing we have to look harder, anew, deeper, more fully.

In Figure 1.1 a reconstruction of the hunter-gatherer site of Lepenski Vir is shown. This is based on archaeological remains of floor plans and animal bone and stone tool distributions on this 8000 year old Mesolithic site on the Danube excavated by Srejovic (1972). There is an overall scene in which humans go about their business surrounded by appropriate houses and objects. The things in this image and on the archaeological site are used to build a picture of a way of life – of hunters-gatherers-fishers in a settlement or village. In such an image the things are props for a way of life. They allow us a glimpse of a lost society – they do that for us. But our interest in the end is the humans and their society. The things are only there as backdrop. They make a specific form of human society possible.

But we can do something subversive – put in an object that does not fit. This is absurd. A concert piano? Suddenly the things, including the piano, force us to look at them more carefully. Why is a piano so absurdly out of place in Lepenski Vir? We look at the piano. It looks like those played in symphony halls, it requires highly specialized skills to play, it is based on a specific western 12-tonal system, it uses a cast iron frame and high-tension wire that only became available in the Industrial Revolution. The grand piano needs symphony halls, it needs years of practice by trained musicians, it needs the system of tones in music, it needs factories able to pour precision iron. The people in the image could not understand, hear, make a grand piano. They did not have the factories, ships to import the materials, the imperial reach, the organization of labor, or the ideas about music that made the piano possible.

So, subversively and subtly, the focus has changed from how things make society possible to the thing itself and its multiple connections. The gaze shifts to look more closely, harder at the thing, to explore how society and thing are co-entangled. That is the shift that I want to try to make in this book.

Let us start with some themes about things that I will return to time and again.

Themes About Things

Things are Not Isolated

The example of the piano in the Mesolithic draws attention to the ways in which things are inter-dependent. Certainly human-made artifacts are not isolated because they by definition depend on humans. Thoughts, football games, institutions are all things that depend on a wider social context and many relationships between things are constructed by human purpose. A house wall needs a roof if the human need for shelter is to be fulfilled, a bath needs a plug, a sail needs a mast. Material things fit into each other so that if I place a large squared and flattened stone on another it will stay there, at least long enough to make a wall. Things stick to each other. They can be tied together. Soap needs water, cooked food needs fire, iron ore needs a furnace if I wish to make metal.

As Preda (1999) points out in relation to philosophy and sociology of science studies, what makes an object relevant and useful in relation to the production of scientific knowledge in the laboratory is not just the object itself, but the knowledge involved in recognizing an object for what it is and how it can be used. A transfer pipette is not just an object in itself (Preda 1999: 350) – it also incorporates knowledge about measurement procedures, the physical properties of liquids, about the relationship between pressure and volume, etc. Some of this knowledge may not be known by a user who may rely on tacit knowledge about how to apply pressure in using the pipette.

But what of natural things – are they not isolated? It is in fact difficult to identify things not affected by humans – a separate natural category. Since humans have been in existence we have affected the world on a large scale (Roberts 1998) so all things are to some degree human-made artifacts. But even without humans, things are part of inter-related eco-systems. Plants and animals need the sun, they need oxygen. Animals need other animals in symbiotic or predator-prey relationships. They need salt and water. Things need to absorb other things – air, food, water – and to excrete them. A fish fits in water but not in air. Or a river needs a bank to flow through.

Things are Not Inert

The notion that things are stable and fixed, at least inanimate material things, is widely assumed. Thus: 'it is this durability which gives the things of the world their relative independence from men who produced and use them, their "objectivity" which makes them withstand, "stand against" and endure, at least for a time, the voracious needs and wants of their living makers and users. From this viewpoint, the things of the world have the function of stabilizing human life, and their objectivity lies in the fact that … (we) can retrieve their sameness' (Arendt 1958: 137; for similar statements see Latour 2005; Olsen 2010: 139). Other thinkers, philosophers and artists have from time to time become fascinated by a different view. The Futurist art movement at the start of the 20th century was intrigued by the bicycle because it depended on movement and speed for it to be a bicycle. They were fascinated by things in movement. In the 'Technical Manifesto' of Futurist painters published in 1910, Marinetti and others stated that 'all things move, all things run, all things are rapidly changing'.

Even what we call inanimate things have charges, weights. They are attracted to each other or repulse each other. They have force and velocity, heat and viscosity. They fall down, rise up. They form into clouds and then disappear into thin air. They dry out, get wet, change appearance and consistency. Of course this is true of gases and liquids. Water takes new forms as it flows over my moving hands beneath the tap. Solids too transform. Organic solids breathe, eat, create energy, defecate. They rot and decay. Even the hardest of inorganic solids change – rocks erode into sands that are sorted and carried in water down to the seas. Archaeologists know that even obsidian is not inert – its surface hydrates at a steady rate. At different scales, matter has a vibrant vitality (Bennett 2010).

So there are only flows of matter, energy and information (Deleuze and Guattari 2004: 377, Ingold, 2010). Thus when we as individual organic entities come into being, matter with various physical-chemical characteristics is brought together – atoms, enzymes, cells, DNA and so on. For a time this flow of materials constitutes an organic entity we call a human, animal or plant body which then dies, dissipates into other forms of physical-chemical-biological matter. So things are really just

stages in the process of the transformation of matter. The same is true of energy; a fire in the grate is a concentration of energy that then dissipates. Information too takes various forms as it flows through voice, onto the TV screen, back into words that may get written down and so on. Or the same word may mean different things in different contexts.

The lack of inertness is linked to the lack of isolation. Things fall apart because of chemical or biological attack or the forces of gravity. Things move because they have been given velocity by something else, and the gravity of the earth is a force that pulls objects towards it. Artifacts are a particular class of things – those made by humans. They in particular are not isolated, needing human attention and care as we will see in Chapter 4.

Things Endure over Different Temporalities

Of course, this fluidity of things is not how they appear to us. Objects and materials can endure over time spans considerably greater than individual human experience. A sound (unless recorded) is very short lived, as are the firings in the brain, or the glance of an animal. A rain cloud is always transforming, never fixed. Humans, animals and plants have longer duration, but many things have temporalities far beyond human lives – the geological flows that produce mountain ranges, the flows of ice that produce valley systems, the gradual decay of a stone wall or the decay of a steel girder or a Palaeolithic hand-axe.

These temporalities differ radically. The earth has existed for 4.54 billion years; the plates of the earth move at a rate of 1 to 10 cms per year, causing unpredictable sudden shudders as they slide against each other. I have excavated at archaeological sites that have residues of human activity from 300 000 years ago. The wheel was invented 6000 years ago. We are all indebted to these past histories. Our biologies, our technologies, societies and cultures, our psychologies and cognition all flow from the past, often the deep past. Equally what we do today and every day, the fleeting moments when we discard a plastic bag or drive a car, produce residues, land-fill and greenhouse gases that will endure as problems for future generations.

So to some degree Arendt was right that we depend on an apparent durability of things. Objects do objectively stand up against our transient and uncertain lives, and our daily traffic counts on this stability, and yet at other scales things are always changing and moving.

Things Often Appear as Non-things

The Mesolithic piano example is reminiscent of the children's game in which we have to recognize anachronisms within a picture. The game is hard because we are not used to search through things in a picture in this way. We tend to take things

around us for granted. In Chapter 2 I will discuss theories about the non-discursive nature of much of our relationships with things. Some things are so omni-present that we stop seeing them, they become background or frame or medium.

Some types of things are designed to be invisible or unnoticed such as preservatives in foods or nips and tucks on the body. Window panes are designed to be looked through rather than to be looked at, unless one is a window cleaner. Another glass that we look through is a television screen. The TV is arguably one of the most transformative objects of the 20th century, and yet in our homes, as we watch our favorite programs, the TV itself becomes unnoticed. In fact we might even baulk at calling a TV a 'thing', since it is just the medium through which we see images. Unless we are TV repair mechanics, the box itself is of little interest and blurs into the background.

Marc Augé (1995) has written of airports as non-things or non-places – locations that we pass through, that seem the same wherever we are, that act as backdrop only. Danny Miller (1987) has discussed how much material culture acts as a frame round a picture – it provides a setting but has little meaning associated with it. It acts as a background cue for behavior.

The Forgetness of Things

It is because we take things for granted, often not focusing on them, that we fail to notice the characteristics of things that I have outlined above. We fail to see that things are connected to and dependent on other things. We do not recognize that they are not inert. And we forget they have temporalities different from ours, until those temporalities intrude in on us, causing us to take action.

There is a spatial and temporal forgetting of the unstable connections of things. A car appears to us as a car. We are taken in by the fact that the car has a perceptual boundary we can see or feel. It appears isolated, an object that is stable. But in fact the car is connected to the tarmac – indeed to a whole network of roads and road management systems that make the car possible. An American car is connected to mines in northern Minnesota from where the iron ore to make the steel frame of the car was obtained (Ryan and Durning 1997). It is connected to the Detroit assembly plant where it was painted by robots and workers. It is connected to oil fields in Iraq over which Western and Middle East powers have fought for the last century. But we forget all these spatial connections that make the car possible. They become invisible to us, at least until the Gulf States raise the price of oil so that we have to pay more at the pumps.

The same can be said of temporal connections. Take the example of my wrist watch. This has spatial connections that produced the leather band, the glass cover and the metal mechanical parts. But the wrist watch is also the product of millennia of change in temporal schemes. My watch tells the date. The yearly calendar was first fixed by Julius Caesar – trying to wrest power

from religious leaders who controlled a variable time. This Julian calendar was replaced by a Gregorian one – that established our current 12 months and the start of the year on January 1. More of these connections of the wrist watch will be explored in Chapter 5. But for the moment I can say that I am linked to Julius Caesar directly through my watch. And yet for most of the time we ignore these histories – or the even deeper history of the origin of the wheel that makes the watch mechanism possible (see Chapter 4).

Does it matter that in our daily lives we forget the spatial and temporal connectedness of things? Maybe not, but it is only recently that we have been made aware of the sweatshop conditions and exploitative labor relations that lie behind many of the goods we take for granted, or the destruction of elephant populations caused by the ivory trade. These distant effects of our fascination with things are increasingly drawn to our attention. And historically my watch has been made possible by the builders of empires and global systems of trade, and the fact that I can use my watch today continues to depend on this rich heritage of power and domination. I cannot unilaterally decide that it is 4.15 on January 6th 3924, when 'in fact' I can see on my computer screen that it is 10.47 on April 8th 2010.

What Is a Thing?

I have already used the word thing to refer to a great variety of entities – clouds, pianos, thoughts, clocks, sounds, bodies, molecules, institutions, ball games – as well as the more everyday items that fill our daily lives. So one aspect of the term 'thing' is that it is incredibly general. One colloquial use of the word 'thing' is that we often say 'that thing' when its name has momentarily escaped from us and it merely exists for us as something. Or we talk of someone whose name we cannot remember as 'thingy' or 'thingummyjig'. So here we are focusing on very basic aspects of entities – that they exist as contained and definable. Words, thoughts, institutions, events and materials have in common that, at least for the shortest of temporal moments, they exist as contained entities defined in a certain way. They create bundles of presence or duration in the continual flows of matter, energy and information. Just by having duration and presence we say they are things.

So a thing is an entity that has presence by which I mean it has a configuration that endures, however briefly. But this is also true of all entities and objects. I have been using the word 'thing' so far, but why not use the word 'object'? The word 'object' derives from the idea of throwing in the way. We are more likely to use the word object for things that are relatively stable in form – so while we might call a cloud a thing, we might be less likely to call it an object, though it can be an object of study. Anything can be an object of thought. So in many ways the terms 'thing' and 'object' overlap. The term 'object' is very tied up in a long history which opposes subject and object, mind and matter, self and other. It connotes an

objectifying approach in which material matter is analyzed, codified and caught in disciplinary discourse. While I will return to the notion that things do indeed have an existence that 'gets in the way' or 'objects', I want to start from a different position that explores the ways that entities connect to each other and to humans. The term 'thing' is more appropriate for such an approach.

We have seen that things pull together flows and relations into various configurations, whether the things are molecules and atoms, or whether they are books and computers, or whether they are institutions like schools and societies. For a period of time matter, energy and information are brought together into a heterogeneous bundle. Things assemble. We have seen that things are not isolated. It is in their connections, and in their flows into other forms, that their thingness resides.

In a series of papers published in English in a 1971 volume, Martin Heidegger deals directly with thingness. In a chapter called 'The thing' he considers a jug. He suggests that 'the jug remains a vessel whether we represent it in our minds or not' (1971: 167). In this book I shall say that the very existence of the jug can be described by saying it is an entity. Heidegger notes that the jug has been produced from the earth so that the material it has been made from 'has been brought to a stand' (1971: 167). Since the jug stands up against us it can be described as an object. So an object is something we contemplate as distant from us and set up against us. We shall see in Chapter 2 that Heidegger talks of this type of object as present-at-hand. Particularly when objects break down, we come to notice them and have to deal with them, fix them. When a scientist explores a jug to see what it is made of and what it was used for, it becomes an object of study, something distanced and particular.

But for Heidegger there is an aspect of the jug that is not captured by describing it as an entity or an object. The jug takes what is poured into it, and then pours the liquid out. The water and wine come from a rock spring or from rain or from the grape growing in the earth. The pouring out can quench thirst for humans or be a libation to the gods. So the jug connects humans, gods, earth and sky. It is this 'gathering' that makes the jug a thing. Heidegger refers to Old High German in which a thing means a gathering to deliberate on a matter under discussion. The jug, as thing, gathers together for a moment humans, gods, earth and sky.

Elsewhere in the same book, Heidegger provides other examples of things. Thus a bridge can be seen as gathering the two banks of a stream in relation to each other, and it gathers people that cross the bridge, it gathers people and carts into town or workers into the fields (1971: 151–2). The bridge as thing can be explored in terms of its usefulness, its functionality in bringing different components together. In this book I will focus on how things bring humans and non-humans together in heterogeneous mixes.

So things bring people and other things together. A good example is what happens when two people buy a house together. Perhaps each owns a share of the house. The two people may or may not be married to each other, but by buying a house together

they are brought together with each other and with the house itself, and the house and its maintenance are caught up (in a way that I shall describe in Chapter 5 as entanglement) with them. Thus if the house springs a leak in the roof, the two have to fix it in order to maintain the house as livable, and to protect their financial investment. They put their money, their savings into the house, and they borrow money from other people to buy the house – so if the property loses value through leaks and bad maintenance they may have to pay money back to the lender. So they are in a relation of debt to the lender. And they are tied to each other through the house – it becomes more difficult to separate or divorce, and the other person's behavior becomes of great interest and weight – will she or he behave in such a way as to undermine the value of the house, or in such a way as to put a strain on the relationship so that the house might have to be sold … and so on. So the thing ties people together, and into relations of dominance and subordination (e.g. with lenders).

We often talk of doing science 'objectively', when we reduce bias and explore the object in a distanced and disinterested way. To do this we have to separate the jug, measure it, categorize it, break it up into its components. It becomes an object of study, isolated and compared. Such analysis is a stage in the exploration of things. But such a stage of study needs to be situated within a broader approach that connects objects, that explores their existence as things. In this latter sense the focus is on the complex ways in which a thing such as a house gathers humans and non-humans, links together for a moment matter, energy and information in useful ways.

Humans and Things

I have so far talked of humans and things. But surely humans are things also? If things are just temporary bundles of matter, energy and information, it must also be possible to say that humans are just bundles of biochemical processes, flows of blood and nerves and cells temporarily coalesced into an entity that is thoroughly dependent on and connected to air, water, food and so on. This is not to oppose body and mind, since the mind too is a thing made of complex neural firings and associations closely linked to an external world of cultural information. As we shall see in later chapters, the mind is an embodied and distributed process. It is, like any other thing, highly connected, and not inert.

But if a human is a thing, it is a thing of a particular kind, one that has developed a very large and complex nervous system, body and mind thoroughly dependent on other things to exist. In Chapter 2 I will describe some of this dependence. In the same way that all living things depend on sunlight, air or water, soil and minerals, so too all sentient beings depend on things to bring their sentience into being. Humans are particularly dependent because their embodied nervous systems need activation by cultural and environmental cues. We can, in a thought experiment,

imagine a human growing up deprived of all external stimuli. Young children severely deprived of stimuli often have difficulties in developing beyond very restricted functional abilities (Joseph 1999). But in our thought experiment, imagine a growing child suspended (but with no strings) in darkness, without sound, food, water, without things and people. Imagine that this child could not even touch and explore its own body. If it was possible to keep such a being alive, my argument is that it would have no thought, no feeling – it would not develop as a human. Similarly, I will follow others in arguing in Chapter 7 that humans would never have evolved without things.

So in this book I justify the separation of humans as a particular type of thing because I am interested in how the human dependence on things leads to an entanglement between humans and things that has implications for the ways in which we have evolved and for the ways in which we live in societies today.

Knowing Things

This book aims to look at the relationships between humans and things from the point of view of things. This is a shift from the idea of a thing as something that people construct, make, use, discard, represent with and so on. In all these more traditional approaches to things, it is the human and the social that come first. It is the human use of things that is assumed to be the aim of research. But my attempt in this book is to follow the many others who have recently tried to get away from the one-sidedness of the utilitarian or semiotic approaches to things (Boivin 2008, Latour 1993, Renfrew 2004). The shift from objects to things is comparable to the shifts from discourses on environment to landscape, from space to place, from time to temporality (Lucas 2005; Tilley 1994), but the aim is to go further and explore the things, landscapes, places, temporalities themselves, to see human-thing relationships from the point of view of the things.

But I have skipped over an important problem. I have talked of objects and things as entities. The discussion above has assumed that once an entity has been defined – a jug, bridge or house for example – then it can be explored as a distinct object or as a connected thing. But how is the entity defined in the first place? If things are always connected, then how can we discern what the underlying entities are – where do we draw the boundaries that identify an entity as contained?

Heidegger uses the example of a jug. The boundaries of a jug are fairly clear – it is something one can pick up, move around. It has a clear coherence as it stands alone. But broken into sherds, at times ground into small flecks lost in the soil and dispersed through refuse in an archaeological site, where is the entity now? Is it the dispersed jug or the individual sherd? If the latter, what of the paint of the sherd that has come off and eroded into the soil? There are also categorization problems at a higher level. Perhaps the jug is part of a set of objects. Perhaps the jug comes

with tray and cup, so that the 'entity' could be argued to be the broader set of objects.

This problem is particularly acute in relation to transient things like sounds or sights that cannot easily be held, turned around, identified as distinct entities. Sounds or sights may form into words and sentences or into pictures and memories, but their boundaries as distinct entities are often difficult to determine. Similarly, it can be argued that the operational chains that produce artifacts are continuous sequences, arbitrarily divided up into actions, gestures, objects and residues.

When I look at the things around me on my desk, then it seems clear that they are all objectively distinct entities. I can pick them up, handle them, move them around. I perceive them as distinct and they have each their own life histories. And yet, looking more closely I see that the lamp is plugged into the wall. The phone has two cables attached to it. The computer is plugged into electric circuits and broad-band cables as well as wireless energy and information that hums around me. I look on the floor and there is a mass of wiring and plugs that leads off into the wall. We shall return to the 'front-back' aspect of things – that things often appear neat and distinct when you look at them from in front, but behind the scenes there are pipes, ducts, cables, refuse bins, coal bunkers, oil tanks hidden away at the back, or beneath the ground, or in the roof. All the connections of things are often hidden away. This is why I had to make the point earlier in this chapter that things are not isolated, are not inert.

So given the connectiveness of things, how can we define an entity as a bounded essence? Where do we draw the objective boundaries around a thing? Is my computer just the unplugged processor box? Or is it also the connections that allow it to work? Clearly it may be useful as an unconnected box to, say a designer, interested in making a style or fashion statement. But for me it is only useful if it computes – which means it needs its connections to work. So how I define an entity depends on its use as a thing. It is not the case that one starts with objective entities and then explores their thingness. Rather the identification of entities and things goes hand in hand. The jug is a coherent entity because of the way it is taken up and used. To be useful it has to have a void into which liquid can be poured and it has to have a spout to pour from. Its separate existence as an entity is tied to its use as a thing. Similarly with the computer. For me the entity is tied up with the fact that I want it to work, to search the Web. So the entity is more than the processor box; it includes the screen and keyboard. It is also the wires and cables that connect these parts to make a whole entity that works. It is also the global flows of energy and information that make my turning on the computer and searching the Web possible. At another level, we might say that the computer is made of parts, such as the keyboard, screen, mouse, processor. These different parts will be defined as separate entities depending on use. If the processor works but the display screen does not, then I will get the screen fixed and will enter into a discourse with shops and technicians to make

this entity work. And so on. Given the different purposes of our interactions with the computer we can divide it into ever smaller, or larger, entities – in each case linked to some purpose or interest.

Things seem 'out there' as entities 'in themselves', but how humans identify, perceive and categorize things is linked to the uses they have of them. The different ways that humans claim to 'know' about things and make them useful lead to different ways of being connected to other things. We might use the example of oracle bones in China as an example (Keightley 1985). These were pieces of turtle bone underside (plastron) that were used for divination in the Shang dynasty (also ox scapulae and tortoise carapaces were used). At that time, the bones were brought into connection with a particular suite of objects and humans including blood used to anoint the bone and the royal elite for whom and by whom the divinations were made. The bones were heated and cracked and then inspected by divination specialists who then wrote on the bones themselves, along the cracks. By the 19th century AD they had taken on very different roles. Treated as dragon bones they were dug up and crushed to make medicines. But right at the end of the century, they were first gazed on in a new way, when the Chinese scholar Wang Yirong made a connection between the ink markings on the turtle bones and the script on ancient Chinese bronzes. This scholarly discovery set off a chain reaction leading to large-scale looting and trade in the oracle bones. These bones, then, have been 'known' from many different perspectives, including the modern archaeological and linguistic. In each case, from the point of view of the bones, these different ways of knowing are not just abstract philosophical reflections – they involve the bones very differently in practical social and material contexts; they link the bones to different things.

Similarly, archaeologists today claim to know past objects in a variety of different ways. Some argue for cross-cultural comparison of objective data. Others argue for contextualized interpretations of local meanings. Still others argue that the phenomenological experiences of past actors can be reconstructed (see Johnson, 2010 for a summary of these different perspectives). We will be exploring many of these perspectives in the course of this book. But for the moment we can recognize that from the point of view of the thing, these different perspectives have the effect of creating different links with other things and humans. An archaeologist taking an objectivist or positivist stance will often focus on measurement, quantification and will bring the thing in relation to calipers, computers and comparative examples from across the globe. A more hermeneutic perspective will bring the thing in detailed relation to the objects with which it was found and into localized cultural codes and practices. These oppositions are here overdrawn, since in practice most archaeologists mix and match between different approaches and perspectives (Hodder 1999 , Johnson 2010). But my point remains – that from the point of view of the thing, the different epistemologies result in being embedded in different collections of things.

What makes things possible epistemologically in archaeology are sieves, microscopes, light refractors – but also different intellectual gazes. On an archaeological

site an object (such as a small piece of crushed turtle bone or a small fragment of a jug) will not be discovered as a thing if the archaeologist uses a sieve/screen mesh size larger than the object. So, things come about and come to be known because of a heterogeneous mix of humans and things. As a thing goes through its life history it finds itself brought into different relations with things and humans as a result of the different epistemologies that make it possible. Being known as a thing can either increase the duration of a thing (for example when the oracle bone is protected in a museum) or hasten its flow into other things (as when the oracle bone is digested as medicine). Similarly, different ways of archaeological knowing can lead to protection (through state legislation) or destruction (as in destructive analytical sampling).

As a thing goes through its life history its existence as a separate entity changes – at times dispersed into soil, at other times reconstructed from fragments. The presence of an entity depends on its use as a thing in relation to other things. This is true at all stages along its life history from original use to the use made of it by archaeologists in their interpretive endeavors. Knowing the existence of an entity is linked to the use of the entity as thing. From this it follows that consideration of thingness is as relevant to epistemological debate as it is to understanding social process.

Conclusion: The Objectness of Things

So I have argued that entities (bounded essences) and objects (that stand up against humans) can only be known by humans through their character as things (that gather humans and other things into heterogeneous mixes). So, from such a perspective, we 'make' things.

But to take this stand will not allow us adequately to achieve the goal of looking at human-thing relations from the point of view of things. As we shall see in the following chapters, in many ways things make us. There is an objectness, a stand-in-the-wayness to things that resists, that forms, that entraps and entangles. It is true that all the objects on my desk are connected to other things and that how I look at them depends on their use to me. But it is also true that they have lives that follow their own paths. The light in the lamp flickers and dies. The wind blows the paper onto the floor. I cannot get the phone to work because a wire in the headset has become loose. The water in the jug containing flowers evaporates and the flowers droop and die. I am drawn into things and their lives. I have to fix things, call the electrician, replenish the jug, go out and buy more flowers. I have to keep peddling uphill, fill the gas tank in the car, eat food when I get hungry.

Heidegger discusses a jug that is useful to humans. But he also describes how the jug is made from earth, how its stands on its own, how it holds water, how it quenches thirst. So the pot does things for humans, acts as a delegate (Latour

1992), seems to have agency (Gell 1998) and we will return to these ideas. But many of these approaches do not scrutinize the jug as a material object. They say little of the different types of clays and temper that make a jug able to hold water. They say little about how the burnishing of the pot surface works to make the fabric more water-tight. They say little about how some types of pot fabric and pot firings would gradually lead to leaks in the jug so that it could not function, or how some jug handles or forms of handle attachment would not have the strength to hold a jug full of water (Schiffer 1999).

There are thus numerous aspects of the material jug that stand in the way, that force themselves on human action. The thingness of the jug includes its object character. The challenge in the chapters that follow is to return to the objectness of things without jettisoning the gains that have been made in understanding things as closely tied to humans and their ways of knowing. In very general terms much recent work on material culture, materiality, object agency, landscape has allowed us to see the complex ways in which humans depend on things. And I will summarize this work in Chapter 2. But we need then to move on to consider the ways in which the objectness of things can be re-integrated into our discourses about things. We can look at entities as 'things' that assemble humans and non-humans together, or as 'objects' that are thrown in front of our thought, that oppose us. The challenge in this book is to integrate these two perspectives, to explore how the objectness of things contributes to the ways things assemble us, and to examine how our dependence on things includes the desire to be shorn of them.

There are engineering aspects to the jug. We need to understand physics and chemistry to see how it works. We need biology to understand how the flowers in the jug can be nourished. Most recent work on materiality, material culture, things derives from the social sciences and humanities. But if we are to consider things more fully we need also to integrate the natural sciences – and in archaeology to integrate archaeometry into theoretical debate. Over the next chapters I will move towards the idea of entanglement as a bridging concept.