VICTOR BUCHLI

AN ARCHAEOLOGY OF THE

IMMATERIAL

An Archaeology of the Immaterial

An Archaeology of the Immaterial examines a highly significant but poorly understood aspect of material culture studies: the active rejection of the material world. Buchli argues that this is evident in a number of cultural projects, including anti-consumerism and asceticism, as well as other attempts to transcend material circumstances. Exploring the cultural work that can be achieved when the material is rejected, and the social effects of these 'dematerializations', this book situates the way some people disengage from the world as a specific kind of physical engagement that has profound implications for our understanding of personhood and materiality.

Using case studies that range widely in time over Western societies and the technologies of materializing the immaterial, from icons to the scanning tunnelling microscope and 3-D printing, Buchli addresses the significance of immateriality for our own economies, cultural perceptions, and emerging forms of social inclusion and exclusion. *An Archaeology of the Immaterial* is thus an important and innovative contribution to material cultural studies which demonstrates that the making of the immaterial is, like the making of the material, a profoundly powerful operation which works to exert social control and delineate the borders of the imaginable and the enfranchised.

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An Archaeology of the Immaterial

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Preface

With the recent rise of new technologies, in particular digital ones, the question of the immaterial has gained increasing significance. The often noted immateriality of these technologies and their consequences have often been cited in terms of the problematic conditions of global capitalism, digital divides, and changes in manufacturing, labour and home life, suggesting a whole raft of problematic changes in social life with new forms of inequality and a problematic understanding of the nature of the social and subjectivity. The problem of the immaterial is usually discussed in terms of its modernity as being unprecedented in human social experience (though see Hill 2006) as being the ambivalent consequence of late modernity whereas previous epochs and other economic foundations achieve an almost nostalgic significance for our understandings of social and material life. The immaterial is seen as a very modern problem and malaise. The book attempts to demonstrate the opposite following Hill (2006), that the production of the immaterial has been and always will be an important operation in human social life. It is an operation that works to maintain given incorrigible categories as I call them following the insights of the philosopher Richard Rorty. Further, I suggest that these incorrigible categories that the production of the immaterial sustains are necessary for girding the productive dualisms that make social life possible at given times and places.

For the purposes of the investigation in this book, the times and the places are those that are encompassed within the arc of Western Christianity and modernity. The reason for this is the role Christianity has played in the development of Western capitalism from the writings of Max Weber and our understanding of Western capitalist modernity from within the critical tradition Weber's writings have established.

To intervene materially, to reject the materiality of the world, is at the heart of the productive paradox of the immaterial. The contention here, following Hill (2006), Hammer and Lodder (2004), Bois and Krauss

(1997) and Blanchette (2011), is that the immaterial is always produced materially. This apparent paradox, it is argued, is its generative power and what girds the productive dualisms of social life and sustains the metaphysics that secure our given ontologies. Admittedly, the book is multidisciplinary, working from various disciplinary traditions to examine this particular problem in material culture that has been identified within these traditions but in reference to the problematic question of the immaterial itself to inform understandings within material culture studies. Traditional disciplinary analytical terms and frames of analysis do not accommodate the issues relevant towards understanding the immaterial, which, by its very definitions, work against these given analytical categories. Hence, the necessarily eclectic method pursued in the book has been to tease out these distinctive understandings to be able to address the question of the immaterial more specifically and generally to be able to ask the question: 'how is the immaterial made and what does it do?'

The book addresses a number of key themes in order to understand this question more fully and with varying degrees of intensity as the availability of data allow. The primary themes are as follows. *Dualisms* – how the immaterial is implicated and productive of dualisms that are necessary for the maintenance of social life. *Producing the immaterial* – what are the various techniques (social, ontological, philosophical and material) that produce the immaterial. Implicated within this production of the immaterial are technologies of the body; discursive technologies, such as ekphrases; understandings of the prototype; bodily techniques and *askesis*, theories of vision; and the emergence of new technologies from the printing press and camera obscura and microscopy to the rise of industrialism and late capitalist technologies of digitisation. *Attachments and Ontology* – how social attachments are forged and what understandings of ontology emerge within the production of the immaterial? The contention of this book is that the production of the immaterial is invariably primarily concerned with creating novel and radical terms by which social attachments are made and sustained within the material world. The immaterial, it is argued, is seen to be pre-eminently a social question that the physical production of the immaterial sustains within material and sensuous life and how those material circumstances sustain and gird our commitments to given social categories and relations. *Incorrigibility* – the immaterial produces and sustains incorrigible categories that sustain the dualisms that produce social life. Our understandings of the universal, the divine, and the problem of fetishisation and the nature of mind, spirit and subjectivity are, it is argued, sustained by the physical production of the immaterial and it is within this production of the immaterial that the terms by which these universal categories are not only forged but contested, acted out and sustained.

The book is divided into the following chapters. Chapter One offers a general overview of the key themes and issues of the book. In particular, the chapter examines the general problem of the immaterial in relation to two productions of the immaterial, contemporary STM imaging technology that can presence the atom and the technologies of the Christian prototype used to presence the divine. Both are used to demonstrate the ways in which the immaterial and its technologies produce the incorrigible.

The subsequent Chapter Two examines the early Christian context of asceticism and the rejection of the material world and later Byzantine iconoclastic controversies and the production of the immaterial. Particular emphasis is given to the way in which the immaterial works in multiple registers to refigure existing understandings of the material. Especially important are the innovative ways in which classical theories of haptic vision are used to forge a new understanding of the human sensorium to produce the Christian subject and the terms by which the incorrigible, namely the divinity of the Christian God, can be materialised and sustained.

Chapter Three examines the pre-reformation context of late medieval thought on controversies over idols and idolatry, and the status of the material and the terms by which the immaterial is produced. Unlike earlier Christian contexts, the multiple registers in which the immaterial works, as understood through the trope of 'collapsing idols' (Camille 2002), in an opposing but structurally similar fashion, to manipulate multiple registers to forge new terms of social and ontological life. Particular emphasis is given to the significance of the injunctions against idolatry in Isaiah 44, which is argued to assert a new metaphysics of substance that sustains the immaterial. Special emphasis is given to the rise of typography, which could promote a new material understanding of the word outside of medieval aural contexts and which promoted a novel and universalising and immaterial word and spirit which the technology of typography facilitated.

With Chapter Four, special emphasis is given to the examination of the reformation era and the 'physics' of the Eucharist (Wandel 2006) as the new terms by which the immaterial is produced and presenced, particularly in reference to the rise of new technologies, such as the printing press, the camera obscura and optics. During this period, the key terms founding Euro-American modernity were established – the Cartesian subject, the scientific method and the emergence of capitalism. These innovations and technologies made possible a renewed and novel understanding of the human sensorium and the terms by which the immaterial could be produced and the productive dualisms it sustained such as the mind/body split and the ontologies they maintain.

Chapter Five examines the rise of Euro-American modernism in the wake of the industrial revolution. It examines the rise of utopian movements that reject the material world and the material means by which the immaterial is produced. In particular, emphasis is given to the utopian Soviet context of the early twentieth century taking its cue from Lenin's own reflections on the radical reforms of the Reformation and its paradoxical attempts to create an 'objectless' world within an industrialised infrastructure at various stages in Soviet industrial and design development. Specifically, the physical manner in which the 'immaterial' is produced using industrial technologies and materials and early innovations in cybernetics suggested a refigured sensorium and hybridity of registers with which to realise the utopian ideals of modernising utopian socialism and the creation of a socialist subject at various stages.

To conclude the arc established in Chapter One, this chapter examines the rise of new technologies in the digital age notably 3-D printing which some herald as a second industrial revolution. The early twentieth-century dream of an 'objectless' world in the wake of the first industrial revolution is actually possible within the technologies of 3-D printing. Here the immaterial is produced with novel consequences for understandings of self and materiality. The category of the artefact takes on a new unexpected dimension when the material itself is the element that is most unstable and in fact, paradoxically, the most stable entity is 'immaterial digital' code itself. The chapter concludes an arc established with the examination of technologies of the immaterial at the beginning of the Christian era with those of the present.

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1 Introduction

The immaterial

Increasingly the world in which we live is characterized as being immaterial in nature. The internet, cyberspace, the fluidity of markets, and the digitization of most realms of human activity from architecture, to manufacturing, to imaging and tele-commuting all suggest that our activities are becoming less and less material and increasingly immaterial. In fact, as much as there are many kinds of materiality, there are also many forms of immateriality (Miller 2005b). This study attempts to engage with this increasing appreciation of the immaterial and to understand how we have dealt with this question not only in the present but also notably in the past at different times and in different contexts. It is the contention here following Hill (2006) that the immaterial is by no means a unique quality of late capitalism or modernity but a thoroughly 'un-modern' aspect of human activity that has a long, if poorly understood, history.

When we consider the immaterial, we must consider the way attachments are made within the material world – and how these attachments are implicated in producing things and people within their surroundings with profound implications for the way sociality is conceived and the varied sensuous attachments we make. However, the question pursued here is not the merely ephemeral in relation to the immaterial, or the much wider sense in which attachments *tout court* are formed – these go beyond any one study. More specifically, the question addressed here is focused on those aspects of human activity that consciously attempt to intervene within the material world in order to deny it – to actively reject or mortify it – which otherwise might come under the headings of iconoclasm, or asceticism or any other similar conscious act of rejection either at the level of the individual or at the level of the collective or state. This particular perspective is taken to tease out what is at stake in these unstable moments when the material world is actively rejected and

how the immaterial, counterintuitively, is actually shaped, formed and materially sustained. The immaterial here, following Bois and Krauss (1997), is proposed as a particular and strategic aspect of the material – a strategic kind of sensuous engagement with the world along with many others. This is also why particular historical periods are examined, because of the access to discourse and materials related to these questions within historical scholarship when the rejection of the material world was a significant cultural issue. For this reason, the perspective taken here is decidedly multi-disciplinary, but is taken from the viewpoint of anthropological concerns within material culture. It attempts to synthesize various approaches to the anthropological study of the immaterial in order to bring together disparate objects produced within specific disciplinary concerns – philosophical, theological, socio-historical, art historical, literary, archaeological and anthropological – that have a direct bearing on our understandings of the immaterial. This is because the objects of analysis created within these disciplinary perspectives are very much themselves 'artefacts' of these approaches – the study of material culture itself being very much just such an 'artefact' of nineteenth-century evolutionary thought and colonial responses (see Buchli 2002a; Schlanger 2006a, b; Strathern 1990). However, as I hope to demonstrate, our understandings of the immaterial are produced within and between these 'artefacts' of disciplinary knowledge. It is therefore necessary to arrange them together in order to begin to discern the different valences and dimensions, or what I will refer to as registers, within which the immaterial is understood and seen to function. Within conventional disciplinary boundaries, the significance of these shifting dimensions and valences are lost when it is only the art image, cognitive schema, literary genre, or actual durable 'artefact' of material culture that is the focus.

I would like to begin by offering two very different but quite comparable examples to start this discussion off. Both concern things that can be considered to be images, but that are also physical processes and distinctly material things. One is Byzantine, from the late ninth century. The example offered is the surviving commentary of the Patriarch Photios concerning the techniques by which the logos and the divinity of God can be represented (see Figure 1.1). The other is from the twentieth century from the IBM laboratories in Almaden, California (Barad 2007) and the techniques of STM (scanning tunnelling microscope) imaging technology by which the atom and the logo of IBM can be represented (see Figure 1.2). Both are discussions of visual images, but more importantly both are haptic representations that involve a novel reworking of our sensorium and our appreciation of what constitutes the material and the immaterial and the main themes covered by this study.

Figure 1.1 Hagia Sophia Apsidal mosaic. Photo: V. Buchli.

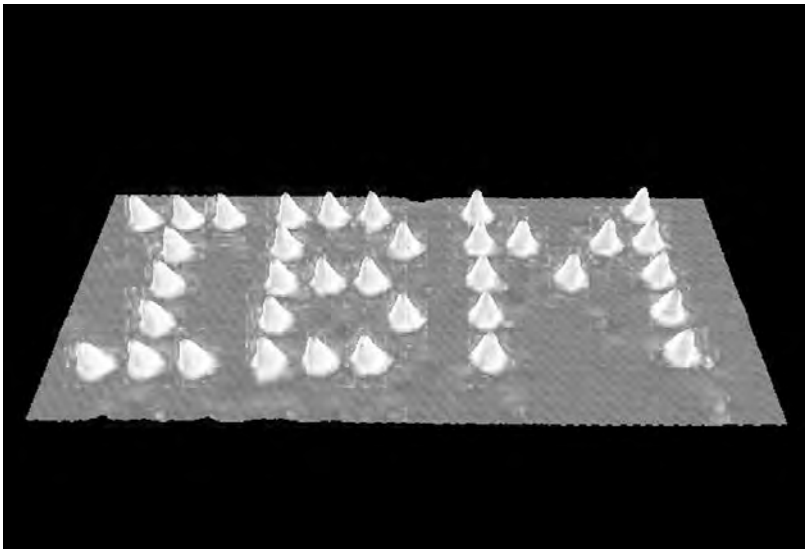

Figure 1.2 STM imaging. Image originally created by IBM Corporation. Also featured in D.M. Eigler, E.K. Schweizer. Positioning single atoms with a scanning tunneling microscope. *Nature* 344, 524–526 (1990). Reprinted with permission.

Barber notes how the Patriarch Photios provides a theological and epistemological discussion of what a devout Byzantine Christian is meant to experience when confronting an icon and what this experience produces – namely the presencing of the divine. The Patriarch Photios delivered this homily in 867 at the unveiling of the apsidal mosaic of the Enthroned Theotokos (Mother of God) in St. Sophia in Constantinople (Barber 2003: 135). He describes how the haptic visuality of the icon functions and the means by which the phenomenon of the co-presence of viewer, icon and divine prototype interact to presence the divine:

> No less than these, but rather greater, is the power of sight. For surely whenever the thing seen is touched and caressed by the outpouring and emanation of the optical rays, the form of the thing seen is sent on to the mind, letting it be translated from there to the memory for the accumulation of a knowledge that is without any error.
>
> (Photios cited in Barber 2003: 136)

As Barber observes (2003: 136), the Patriarch Photios reiterates a long-held understanding of the relation of sight to touch that derives from an Aristotelian understanding of haptic visuality. This is very different from conventional modern understandings, where the rays of the object perceived actually touch and impress themselves on the mind of the perceiver like a seal on a piece of wax – the encounter is more familiar to us as touch rather than disembodied sight.

In turn, I want to offer a recent description of how the imperceptible and the immaterial might be presenced, provided by the philosopher of science Karen Barad (2007). She describes how the atom is visualized through an STM imaging microscope using an updated understanding of haptic visuality (Barad 2007: 358). She describes how a certain current enables the microscope to 'see' the atom by actually touching it with the tip of the microscope – seeing here becomes a form of touch. When the current is increased, the tip of the microscope attaches to the atom. It can then be moved, the current decreased and the atom placed and eventually rearranged into the IBM logo – which at the atomic level is not so much inscribed or written upon as literally built up to create a physical arrangement of atoms that form a sign representing the IBM logo. What was visual becomes tactile; in fact the two senses, typically divorced from one another since the Renaissance (see Classen 1993; Howes 2005; Ingold 2000; Ong 1967), are here united into the haptic manipulation and rearrangement of atoms in the universally identifiable logo of IBM in much the same way as we can understand the icon to work in the Patriarch Photios' Aristotelian description. Word, image, sight and touch

are unified in different but comparable ways in relation to the material and the immaterial. They are especially similar in the way they defy the conventional sensorium of the Renaissance of which we are still the inheritors. In both examples, the question of the relation between the material and the immaterial are negotiated in ways that challenge our traditional subject/object distinctions and our dominant hierarchies and asymmetries within the Western sensorium.

Recent work in the anthropology of the senses has had profound implications for the way in which we understand materiality (Howes 2005). Sense-based approaches have been extraordinarily useful in describing the different sensory dimensions in which we can understand materiality – significantly, it offers insights into how we can understand the immaterial as an aspect of these sensuous engagements. Crudely put, the post-Renaissance sensorium disaggregates and then privileges previously related senses such as forms of haptic vision in the example of the Patriarch Photios or the IBM Laboratories. It privileged a disembodied form of vision over other senses with the result that other sensually based forms of knowledge derived from touch and hearing are diminished in significance along with the people and things associated with those realms (e.g. children, foreigners, lower classes, women). Engaging in immaterial practices almost always involves the manipulation of our understandings of our senses in relation to the material. The immaterial is often a radical effect of our manipulation of the sensorium – such as the rendering of sight separate from touch – increasingly disembodied and immaterial at a higher level of social prestige and knowledge. The two examples from the Patriarch Photios in Constantinople and the IBM Laboratories in California offer a profound sense of how radical these effects are and how profoundly our conventional understanding of the sensorium can be reorganized and made to work with rather spectacular results – such as the ability to touch and effect the divine or the atom.

The study here focuses on the particularities of four contexts from different cultural and historical periods to investigate the cultural work performed through differing notions of the immaterial, thereby providing an arc in which one might be able to consider the two examples from the Patriarch Photios and IBM. All four contexts are inter-linked at various levels by their association with shifting and contested Western notions of materiality and immateriality and the conscious attempt to reject and transcend the physical world. And all four are marked by pronounced cultural controversies accessible through the historical record (and later through the ethnographic record) offering insights into the particular cultural contexts in which the relation of the material to the immaterial is formed. These four contexts are: (1) the tradition of early

Christian asceticism; (2) the rise of Protestantism and the impact of new technologies such as typography and microscopy within the context of early merchant capitalism; (3) twentieth-century European responses to new industrialized technologies and the social impacts of the industrial revolution and rising capitalism – in particular the European avant-garde's artistic and social project for the de-artefactualization of the material world under conditions of capitalism and state socialism; and (4) the latest attempts within this Western tradition examining the contemporary immaterial consequences of digitization, cyberspace and virtuality for our understandings of material culture and physical transcendence and its most recent manifestation in a case study of the rise of 3-D printing[1] where the material and the immaterial are profoundly reconfigured within what has been heralded by some as a second industrial revolution.

The Christian tradition is arguably the pre-eminent starting point from which to consider the relation of the material to the immaterial, especially when we consider the distinctiveness of the Christian tradition in the wake of the monotheistic Judaic tradition which radically emphasizes the material dimension of the divine. The great apologist for images, St. John of Damascus, is instructive here:

> Of old, God the incorporeal and formless was never depicted, but now that God has been seen in the flesh and has associated with human kind, I depict what I have seen of God. I do not venerate matter, I venerate the fashioner of matter, who became matter for my sake and accepted to dwell in matter and through matter worked my salvation, and I will not cease from reverencing matter, through which my salvation was worked.
>
> (John of Damascus 2003: 29)

St. John of Damascus' quote from his *Three Treatises on the Divine Images* is a spirited defence of icons within the Byzantine iconoclastic controversies. The observation is simple: the Christ figure is a material manifestation of the divinity of the one God. This is the great distinction that St. John of Damascus makes in relation to Judaism where the divine is distinctly apprehended in non-material ways. The figure of Christ suggested a new understanding of the material in the face of the Old Testament, which permits the use of images as material manifestations of the divine without being idolatrous. Idolatry, as it has been traditionally conceived within monotheistic Judaism, cannot be seen to work in the usual ways when Christ appears as a material flesh and blood manifestation of God. The material now takes on a new and

controversial dimension that lies at the heart of the iconoclastic controversies during both the Byzantine Iconoclasm and the Protestant Reformation. In short, the availability of the material as the site where a Christian universalism is produced, emerges within this theological innovation that St. John of Damascus so ardently defends and where the relationship of the material to the immaterial as a problematic arguably has remained to this day.

Flows and power

To be able to 'touch' God and be moved by God (which is what an icon facilitates) or to be able to 'touch' the atom and move the atom (which is what STM imaging facilitates) are acts of power and the regulation of the flows of power that profoundly confound our received understandings of the senses, the visual, the physical, the immaterial and material. Our conventional understandings of these boundaries are irrevocably challenged. More importantly, what is at stake here is how we understand and regulate the flows of power – social, economic, political and divine – that are suggested by these two extreme examples. In particular, what is at stake here, which is what I aim to show in this study, are notions of selfhood and the means by which subjectivity and sociality are effected materially.

Anthropology and the immaterial

These last concerns are very much the terrain of anthropology and in particular the field of material culture studies. What Miller (2005b) terms the tyranny of the 'subject' in relation to the material in material culture studies and anthropology can also be seen as the 'tyranny' of the word – a tyranny that assumed power with the *annus mirabilis* that ushered in the ethnographic monograph and British social anthropology (see Strathern 1990; Buchli 2002a). This needs to be understood against the broader historical backdrop of the social sciences, which insisted that the material was what was inscribed or projected upon by the social and cultural – things were literally mere illustrations of the social, to paraphrase Strathern (1990: 38).

Our preoccupation with materiality has made us well attuned to degrees of materiality over degrees of immateriality. Worldly power and relative degrees of materiality – that is, the capacity to be more material than something or someone else – are usually associated with the control of flows of power (in the widest sense of the word, worldly, otherworldly, biologically, materially and politically). I hope to argue that this

disposition of the material, though not entirely untrue, is a truth that is more an effect and artefact of the disciplinary frame in which these observations emerged and, more broadly, an artefact of the post-Renaissance sensorium in which we apprehend the world (Classen 1993; Classen and Howes 2006; Howes 2005; Ong 1967) – one that is confounded and challenged by the examples of the Byzantine icon and STM image just mentioned and those discussed within the broader analytical scope of the immaterial of this study.

Traditions of immateriality are often based on discerning the 'reality' behind the material (Miller 2005b: 21). What is significant lies beyond the realm of our immediate senses – though consider Classen and Howes (2006) regarding hierarchies of sense and hierarchies of knowledge. This study argues that this is in effect a regulation of how attachments are made, not to a thing, but that which is behind the 'thing' (e.g. the divine) – what can be rendered incorrigible (following Rorty 1970) and thereby become a fixed referent to which we commit for the regulation of our affairs. Questions of interiority and exteriority (Keane 2005) are implicated in terms of what one must attach oneself to, the thing (the thing constituted as 'thingness' in the tradition of Heidegger) or to something that is behind it (and in a certain way knowable by that thing which can be reworked to create an entirely new network of ethical regulatory flows, attachments and social relations all effected within historically specific sensoria).

Miller (2005b) notes the apparent paradoxicality of the immaterial. Its imputed paradoxicality is part of its ideological and practical efficacy. It is worth considering Miller's point regarding the emperor having no clothes – that there really is nothing beneath the material that we apprehend: there is no interiority draped in material exteriority. Citing Keane, he argues that clothes and body are inseparable, that what one engages with is the clothed-subject (Miller 2005b). That subject is produced within these sensuous material settings and does not exist in advance to being 'clothed' – hence Miller's call to dethrone the sovereign subject. However, this simile reveals a deeper truth of what is at stake here. What is significant is a particular relationship over conflicting notions of interiority and power related to the immaterial that reconfigure and regulate social relations such as we will see in the various examples discussed in this study, which range from the early Christian to the Marxist and Soviet. As Miller (2005b) astutely observes, our subjects stubbornly insist on the sort of dualisms that would enthrone the 'subject', which Miller is keen to dethrone within anthropology. It behoves us to better understand these 'incorrigible' reifications and what they do in terms of their ontological and

social effects and pay such defunct metaphors their due honour (Miller 2005b, following Rorty 1991).

Anthropology of the senses and the immaterial

The so-called 'sensual turn' in response to the 'linguistic turn' suggested by Classen and Howes (2006: 161) suggests of course an attempt to unseat the 'aural' and the 'visual' into a new awareness of an expanded sensorium implicated in various forms of human knowledge in which the material is intimately and sensuously embedded. This emphasis on the most material aspects of materiality – e.g. touch, sound and taste – shifts our emphasis from the more traditionally transcendent immaterial spheres of understanding of the material where the 'aural' and 'visual' traditionally reigned in Western traditions, suggesting a challenge to established hierarchies of knowledge and the sensual dimensions in which the material is deemed to be most efficacious. This turn towards the sensual refutes the significance of the more abstract and less dimensioned and less material aspects of materiality such as the visual and textual; representing of course a challenge to the prevailing post-Renaissance sensorium which privileged such visual forms of knowing. One might be losing as much as one might be gaining with such a shift, since to instigate a 'revolution', as the term 'turn' naturally suggests, replaces one set of references with another, vacillating between terms shaped within a particular sensorium and its implied hierarchies of knowledge rather than seeing how this sensorium is reconfigured along with our terms of analysis, categories and of course objects of analysis.

If at one time it could be understood that material culture was much more than just mere 'text' (Buchli 1995) then recent technological innovations, as Jonathan Hill (2006) has recently noted, suggest the opposite. Recent technological innovations in fact equate such things as houses and designs as text – as digitized code. Steel is cut directly within CAD (computer aided design), sign and signified are inseparable and effectively one, challenging what we understand as text and what we might understand as the materiality of the house – not to mention what the implications are for our sensorial terms of reference when it is hard to segregate 'drawing' from 'cutting'. Recent innovations in new technologies such as those identified by Hill (2006), STM imaging discussed earlier and our case study of 3-D printing to be examined later all point to this reconfigured sensorium within which conventional terms of analysis are refigured. As Hill (2006) notes, when one draws, one is also directly cutting steel. Or, as the examples from 3-D printing will suggest, word is literally 'thing' when it is code that is the only 'stable' entity, that

is 'printed' to make an object in 3-D printing. The relation between the material and the immaterial and the hierarchies of our post-Renaissance sensoria privileging 'vision' (and I include text within the visual) need to be reconsidered, as has been so forcefully and eloquently asserted by figures such Classen and Howes (2006). But it is important, in thinking about such a new sensorium, that it is not so much a replacement as a reconfiguration, and a reconfiguration that is partial, hybrid, multiple and contingent – and at times incommensurable (Povinelli 2001; Sansi-Roca 2005; Strathern 1990). We are still beholden to the analytical distinctions which our research in other aspects of non-Western sensoria reconfigure – especially when as phenomena they become the practical terms through which people emerge within the world – what the philosopher of science Joseph Rouse (2002) refers to as the 'norms' to which we are committed and through which we emerge.

What is clear from the standpoint of the innovative research of figures such Classen and Howes (2006) is that the sensorium is most directly implicated in our understanding of immateriality. Certain sensoria privilege certain forms of materiality and specific notions of immateriality and their various social effects. Similarly, the immaterial also works to deny or mortify or denigrate certain aspects of the sensorium, with the result that very specific hierarchies of engagement and forms of attachment are facilitated. Hoskins (1998: 51) notes how the lack of colour and design of betel bags signify an older person's detachment from the world as they approach becoming ancestors. In another way, in the history of science Roberts (2005) demonstrates that an increasingly abstract, internationalized, non-regional and expanded form of chemical science championed by Lavoisier could prevail and displace more sensuously and regionally bound forms of earlier chemical science (based on sight, smell and touch) by appealing to innovative abstractions of measurement (such as the metric system in France), and the relative fluidity of certain media, such as the printed book, could create a more immaterial and abstract form of chemical knowledge dependent on sight and abstract measurement rather than taste and smell. The effect was that this kind of chemistry was more widely available and repeatable in a wider setting, spatially and socially expanded, with the effect of establishing itself as normative practice over a large part of Europe. One sensorial register is implicated in a particular material one that is increasingly abstracted, fluid and immaterial, effecting a very different social and material form of knowledge than previously, that creates the norms by which future knowledge is committed to and shaped.

Similarly, as much as the ocularcentrism of the West has been criticized, there has been a move more recently to see how this has enabled

novel capacities and subjectivities that are at once constrained and enabled, such as Rowland's example of West African coastal inhabitants and the arrival of modernity, enabling new subjects within constrained traditional societies (Rowlands 2005). However, what is key in discussions such as Rowlands' is that these are not just wholesale adoptions of the terms of Western modernity but a reconfiguring of certain terms of modernism in the context of indigenous conditions. These are just a few examples of how a cosmopolitan or hybrid sensorium emerges that takes advantage of the capacities provided by otherwise oppressive ocularcentric and visualist sensoria.

Philosophy and the immaterial

Essentially for some philosophers the idea of the immaterial is a nonsense, but a very important one – a paradox that goes to the heart of the question's productive power. If we consider the philosopher Irving Thalberg (1983) on this issue, then what we call the immaterial does not really support the apparently radical dualism contained within the word pairing of material and immaterial.

Philosophers such as Irving Thalberg (1983) and Richard Rorty (1970), in struggling with the paradoxical question of the 'existence' of the 'immaterial' which imputes nonetheless some degree of materiality, both note, of course, that the question is merely one of degree and how that degree is described and in what context. As Thalberg notes (1983: 108), other refutations of material states are materially conceived: 'Instead of saying that non-alcoholic refreshment contains no alcohol, we can list its ingredients – the minerals, flavourings, or sweeteners it contains. However, when theorists attempt to explain the sense in which mental happenings are non-bodily, positive information is scanty'. The immaterial and the dualism it presupposes are logically unsustainable from a philosophical point of view. Thalberg (1983: 113) frustratedly throws up his hands: 'We have yet to learn what dualists are asserting'. Rorty (1970) specifically sees this as the purely 'mental' or 'immaterial' being the socially contingent understanding of the 'incorrigible' (that which is irrefutable). That is, there are no other means of refuting the statements of a purely mental nature or of understanding it in some other 'non-mental' way – as logical opposition in 'physical' terms. Rorty argues that if all incorrigible statements of states of being could be eventually described technically in terms of the measurements of something like his imaginary 'cerebroscope', there could be an identity between such incorrigible statements and something empirically described, and the assertion of something 'mental' and 'immaterial' would then be impossible.

Rorty is careful to note, however, that ultimately this is a social question of 'matters of taste' (Rorty 1970: 423):

> reference to mental states might become as outdated as reference to demons, and it would become natural to say that, although people had once believed there were mental states, we had not discovered there were no such things. [. . . and] we might simply cease to talk about them at all (except for antiquarian purposes).
>
> (Rorty 1970: 422)

Rorty observes, this becomes a matter of taste then, no longer an ontological issue, and by default the philosopher throws the issue into the realm of the social and socially contingent needs:

> For as long as people continue to report, incorrigibly, on such things as thoughts and sensations, it will seem silly to say that mental entities do not exist – no matter what science may do. The eliminative materialist cannot rest his case solely on the practices of scientists, but must say something about the ontology of the man on the street.
>
> (Rorty 1970: 422–23)

Rorty throws the problem squarely back to the social scientist and, I would argue, in particular upon the shoulders of the anthropologist to help explain and understand the 'mental' and other instances of the 'immaterial' and other 'matters of taste'.

Rather what we seem to have, following Thalberg (1983), is a particular instance of the material. The immaterial is a particular and peculiar kind of materiality that works to effect a particular kind of structure or hierarchy that is fixed by its being 'incorrigible'. The immaterial is the material under stress, under erasure if you will, mortified, or, as Harpham (1987) describes it, an ascetical materiality that has a particular critical stance in relation to what one might call the material in different times, places and cultures. It is the nature of this profound material engagement that is to be discussed here; what this particular engagement with the world tells us about materiality in general within emerging discussions in anthropology and science and technology studies (Barad 1998; Latour 1999; Law 2002; Miller 2005a,b; Rouse 2002).

What does it mean then when individuals and groups of individuals actively intervene to deny the materiality of the world and reject it and to enforce this ultimately unenforceable and ambivalent dualism that Thalberg and Rorty describe? To consciously intervene in the material world and attempt to mortify it materially is to establish a very particular

relationship within which people and things are known and emerge (as a 'matter of taste', following Rorty) that is quite distinct from other material engagements which articulate or monumentalize the material world, and also distinct from iconoclastic actions which attempt to destroy specific objects or categories of objects – however, as we are reminded by Pietz (2002), the sin of Saul or 'the sin of the souvenir' always returns to us, subverting what the original iconoclasm attempted to achieve. The ascetical object crucially comes very close to this outright iconoclasm but not quite close enough. Yet the iconoclastic object shares many other qualities with the immaterial. It must be seen to have been destroyed; its remains must be visible – that is, it must be apprehended physically, materially. The visibility of its work is necessary for the moral import of its actions to be legible, as we shall discuss further below and in particular with reference to Pietz's problem of the 'the sin of the souvenir'. This becomes the problem of excess, figurative or otherwise (Lyotard 1994), the problem of remaindering, the outside, its instability and the radical effects of such returns or excesses (see Butler *et al.* 2000; Keane 2005; Lyotard 1994; Pinney 2005; Bois and Krauss 1997).

This notion of excess is prefigured in the writings of Locke, who argues for a parallel symmetry between the material and the immaterial. If the immaterial is logically untenable, then, argues Locke, so is the material. Locke observes that the substance of the material and the insubstantial quality of the immaterial are two equally obscure concepts that in fact exist in mirrored symmetry to one another:

> For putting together the Ideas of Thinking and Willing, or the Power of moving or quieting corporeal Motion, joined to Substance, of which we have no distinct Idea, we have the Idea of an immaterial Spirit; and by putting together Ideas of coherent solid parts, and a power of being moved, joined with Substance, of which likewise we have no positive Idea, we have the Idea of Matter.
>
> (Locke 1975: 305)

Both are logically insupportable and both speak, as we have seen with Rorty and Thalberg, to the normative understandings and dualisms that structure social life. Substance and the material is every bit as untenable logically as the immaterial. However, the distinctions made and the productive dualisms that arise are the terms by which social life can proceed. As Locke asserts:

> Because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom our selves, to suppose some substratum, wherein they do subsist, and from which they do result, which we therefore call substance.

> So that any one will examine himself concerning this Notion of pure Substance in general, he will find he has no idea of it all, but only a Supposition of he knows not what support of such Qualities, which are capable of producing simple ideas in us; which Qualities are called Accidents.
>
> (Locke 1975: 295)

Georges Bataille, the great philosopher of excess, as Bois and Krauss (1997) observe, makes the same observation in relation to substance and dialectical materialism, arguing that materialist philosophies uncritically replace idealism with materialism within their hierarchy of thought, echoing the symmetry described by Locke. Furthermore, Bataille argues in relation to the establishment of modern science that this metaphysics of substance is precisely what renders scientific practice stable, intelligible and normative – in short incorrigible – and of the same order as the divine (Bataille 1970: 79; see also Bois and Krauss 1997).

Philosophers of science and the immaterial: stubborn dualisms

There is a bit of modernist residue in some recent approaches to material culture studies surrounding the question of materiality. There has been something of a tendency to want to describe a more definitive 'theory' of materiality – overturning linguistic analogies towards something like the radically immanent alterity of materiality (see Fowler 2010). This appears to be an attempt to secure the enterprise against some form of abject relativism in deference to an open-ended and uncontained material immanence that would always exceed and challenge our interpretative projects. There are echoes here of the Frankfurt School and its desire to once and for all unseat fixity and ensure open-endedness and the radical potential such excesses hold to challenge settlements of power by recourse to a certain kind of empty signifier and thereby unseat the difficulties posed by centuries of dualist thought – our liberties would be ensured open-endedly yet constrained by material immanence. However, this final and a-historic operation ironically perpetuates just that sort of finality that it purports to overturn (see Butler *et al.* 2000; and see Mouffe 2005).

Similarly, the 'sensory turn' (Classen 1993; Edwards *et al.* 2006; Howes 2005) attempts to 'overturn' the visualist post-Renaissance sensorium which privileges sight over all other senses. It is within this post-Renaissance sensorium that material culture studies as a field of studies and a 'disciplinary artefact' in and of itself emerges (see Buchli 2002a; Strathern 1990). What we call material culture is almost emphatically understood in visualist terms – as Strathern's (1990: 38) description of the field at the beginning of the twentieth century as 'merely illustration' suggests.

Yet there is this modernist impulse to replace yet again a given 'turn' with another more 'authentic', one that would not only more 'authentically' present us with the objects at hand but would also remedy the clearly evident and well-documented injustices of European colonial exploitation within whose sensorium colonialism and the rise of capitalism was facilitated and within which colonial subjects were produced and subjugated (and subjectified). Here social justice is secured through liberation from a dominant colonial-imperialist sensorium in favour of many more 'authentic' indigenous sensoria.

Within the philosophy of science there have been various attempts to break out of such analogous impasses. Most notably, Bruno Latour has championed this within the so-called 'science wars', steering a path between social constructionists and scientific realists (Latour 1999), attempting to reconcile scientific 'fact' with the social construction of knowledge. Barad's notion of 'agential realism', and in particular her understanding of 'material-discursive intra-action', affords a means of breaking out of such a stalemate to be able to more adequately understand the dynamics of the settings we encounter without having to ricochet within so many more 'turns' or have to choose between one or another, such as the visual, the sensual, or the discursive. In attempting to understand the significance of the immaterial in relation to the material one is obliged to assume a more synthetic understanding within these material-discursive intra-actions. It is important to consider how, then, plural materialities and plural immaterialities emerge historically and culturally, and how, following Barad (2003: 815): 'It is through specific agential intra-actions that the boundaries and properties of the "components" of phenomena become determinate and that particular embodied concepts become meaningful'. The example of the atom and STM presented earlier illustrates her method of presenting such a phenomenon. Where the capacity to observe – the scientist through her tools – the microscope and the atomic phenomenon itself, emerge within a material-discursive field, within and through one another, not pre-existing but as a result of a specific intra-action of all these entities into a novel configuration within which something like an 'atom' emerges with a shift in current.

It would be more modest, and ethically efficacious, to acknowledge the ricochet of such 'turns' as attempts at just one more such operation as a means to effect the kinds of relations and onto-epistemologies (Barad 2007), that we need in order to cope with our circumstances (following Rorty) and expand our capacities in the world – what Barad (2007: 234) would refer to as 'liveliness' – in as just and as efficacious a way as possible. Our liberties would be best assured (see Mouffe 2005) by recourse to the ethical deployment of our operations within which we

work rather than by recourse to some quasi-mystical material immanence or utopian liberated sensorium. As Edwards *et al.* (2006: 23) suggest, the visualist sensorial regimes that brought about the museum also brought about the capacity to refigure its visualist sensorium through strategic interventions by indigenous groups to not only recreate objects but also to exploit this 'cosmopolitan' sensorium in which the visual still prevails (see Myers 2004, regarding indigenous art forms).

This is not an attempt to suggest some sort of 'apologetics', far from it. It is an attempt (following Barad 2007; Butler 1993; Mouffe 2005; Rouse 2002) in the spirit of a Foucauldian understanding of the amorality of operations of power to understand power as both enabling and disabling with unexpected consequences and capacities – and whose description is ultimately to better enable our negotiation of these powers. As Rose (2006) suggests, the social scientist's purpose is not to judge, let alone prejudge, these powers and capacities but to be able to better describe them so as to determine their effects and intervene in the world more justly and adequately. The ricochet of 'turns' will not secure our liberties or liberate us; they will, however, enhance and expand our capacities, for which we must take direct responsibility as to when we do in fact deploy and direct them, through what Barad refers to as our 'lively intra-action' within the world and within the accumulated 'natural history' of these norms and capacities as they have emerged historically and in which we emerge and act (Rouse 2002).

Producing the immaterial

Embodiment

The denial of the material, however, has a critical dimension in relation to the body in the works of feminist scholars, most notably the Queer theorist Judith Butler. The immaterial, the abject, the non-corporeal has typically been understood to be the realm inhabited by abject bodies and liminal subjectivities, such as women, lesbians and gay men. Abject bodies are rendered less materially stable through the precarious iterative processes that sustain them, but it is their very palpable instability that shapes the stable margins, the 'constitutive outside' of what she describes as that which produces the heterosexual matrix, which sustains and shapes dominant iterations of gender and sexuality. That is, some things 'matter' – to use her pun – in the sense that some bodies count socially and are dominant and consistently reiterated both physically and discursively in order to be sustained over others. The abject feminine defines the contours whereby the corporeal and

'mattered' material masculine takes its shape (see also Oldenziel 1996 in terms of masculinist biases in conceptions of materiality). Butler (1993) produces a genealogy in the manner of Foucault, through the development of 'material' masculinity and abject, formless and immaterial femininity that has emerged through the dominant heterosexual matrix of Western experience.

Alternatively, Dyer (1997) speaks of racism, particularly the assertion of the supremacy of whiteness, as the process of transcendence over the material, the non-white, as embodied by the figure of the 'white woman': a pure transcendent being, not mired in earthly materiality and corporeality. At the level of the human body, immaterial strategies that facilitate bodily immateriality become a powerful social tool for creating social categories, establishing the contours of boundaries, creating certain kinds of bodies and social relations, all within a given sensorial regime with its particular asymmetries and hierarchies, as the two seemingly contradictory examples of Dyer and Butler imply. Often it is the destructive effects of iconoclasm or the mortifying effects of asceticism that we associate with making things immaterial. However, if we were to look at Butler, the persistent rendering of the female body and female subjectivity along with other subjectivities as abject and immaterial is a relentless reiterative process that transcends any of our understandings of mere iconoclasm or acts of destructive violence or even sustained ascetic practices – that constantly effects a diminished material subjectivity within specific sensorial realms and their asymmetrical relations of power.

Recent work in the social sciences has called into question traditional Foucauldian understandings of the social effects of materiality that enable coherent subjectivities. Innovations in the workings of capital transactions, actuarial practices and labour practices suggest a renewed emphasis on the dematerializing and destabilizing effects of late capitalism which attempt to exert social control through the increasing fluidity of exchanges and social relations. Notably the legal scholar Jonathan Simon (1988) has observed how changes in actuarially based forms of management, control and governmentality, which manage 'populations' as opposed to palpable, coherent and identifiable bodies, make it increasingly difficult for empowered subjects to 'cohere' in any meaningful embodied sense of the term and thereby become available for coordinated social action. The effects of which are the oft-observed 'virtuality' of late capitalism or what Zygmunt Bauman (2000) describes as 'liquid' as opposed to 'hard' modernity. This is as much a function of the impact of new technologies and new forms of governmentality as it is a reprise of the sensual mortification Marx described that produced the 'fetish' of the commodity with its

fluid universalizing notions of 'exchange value' at the expense of the embodied and emplaced sensuality of labour (Marx in Elster 1986).

'Torques', 'folds' and 'cuts'

The rejection and mortification of the material world is, despite what it appears to refute, a profoundly sensuous and embodied activity. The immaterial is not effected by any other means except by this profound sensuous engagement – hence the seeming paradox of the physicality of the immaterial. The materialization of the immaterial can be conceptually understood to be effected by specific kinds of sensuous and embodied engagements, namely what observers have described as 'torque' (Harpham 1987: 77, 93), 'folds' (Deleuze 1993), 'cuts' (Barad 2007: 333), 'vexations' (Bacon 1999), all of which can be understood as various kinds of operations (see Bois and Krauss) focused on the individual body or entity that intervene and in a sense 'mortify' in order to produce and effect 'immateriality'.

Pinney (2005: 270) invokes the trope of the torque as that element of materiality that is recalcitrant and resists interpretive frames: 'that there is an alterity ("torque") of materiality that can never be assimilated to a disembodied "linguistic-philosophical closure", "culture" or "history"'. This is not unlike the 'torque' developed by Harpham to describe the ontological operation underpinning ascetic practices. It is a movement within pre-existing frames, within the ready-at-hand, but one which works on (or against) them while held in check within. As an operation per se it can aspire to a certain banal universality and applicability across historical time frames and cultural contexts. But it is important to bear in mind that such operations emerge within conditions of necessity. Notably, for observers within the radical democratic tradition (Butler *et al.* 2000) it represents the productive capacity to produce the 'necessary outside' described by Butler that always secures the potential for displacement and that assures the possibility of alterity. It is worth bearing in mind that this operation is a conscious strategy, a refiguring within the world at hand in order to invoke this alterity through torsion to make 'excess' available for other projects. It defers outwards towards an unspecified time and place, but it nonetheless defers and displaces (as the ascetic operation itself does). But as the metaphor of displacement and in particular the metaphor of torque suggest, these operations are relational, not random. They have contexts in which they already exist in a relation of torsion and displacement. These may be open-ended but are always delimited by the circumstances in which they take place, with an implicit directionality if not entirely anticipated or controllable. This direction may not just be

transcendent as it might be the wont to describe it as such. Transcendence is just one direction. It might be understood in a different aspect as being immanent in a Kantian sense. Rouse (2002) suggests within his resurrection of philosophical naturalism that these contexts represent the ethical space in which we live, think and act upon the world. Recourse to an immanence or open-ended alterity that such displacements cause are, I would argue, necessary operations of a historical moment and constitutive of a certain set of relations that bring elements together in a novel configuration. We need objects to work in this particular way – it might be just a necessary constitutive fiction to maintain the worlds we need in order to live. If we consider Keane (2005), Pinney (2005) and others, objects are constituted in their resistance, offering radically open-ended affordances and as such offering an open-ended hope for utopian renewal directing us in an indexical (yet indeterminable) way to what might be (see also Butler *et al.* 2000; Mouffe 2005; Bois and Krauss 1997).

The 'torque' metaphor is useful as it rejects a sense of metaphysical immanence and acknowledges that it is people who perform this torque – it is an action within the world like others. Further, torsion implies continuous exerted action; one does not just twist (that is, act) once, but one does so in an exerted, sustained fashion. It is a continuous, sustained and repeated exertion which produces the torque effect. As Barad's work (2005) suggests in relation to the application of pressure, the body of the person as well as the object under pressure come into a new field of relations where both body and object within torsion are changed in their disposition, producing a new disposition and distribution of power where body and object are difficult to disentangle from one another and radically reconfigured in relation to one another. This is an example of intra-action (Barad 2005), not imbrication (following Sassen 2007) involving two anterior entities, but an entirely new, dynamic and ultimately ambiguous relationship where boundaries are unclear and constantly changing.

Visuality

An additional aspect of the immaterial's paradoxical physicality is its profound visuality. This paradox is more an 'artefact' of our received visualist sensorium which requires the de-corporealization of sight for its efficacy. As we will see in subsequent chapters, antique notions of visuality were haptic, and thus the visuality of antique ascetic practices were more profoundly embodied and effective within different sensual registers. As such, ascetic practices like work must be visible in order to achieve their ethical effects. Within such material ascetic practices there is the notion of

excess, of too much asceticism, and a sense of visual flamboyance which seems somewhat at odds with conventional understandings of asceticism, and other immaterial practices. Stoics argued against 'ostentation' which de-legitimized certain ascetic practices (Francis 1995: 19). Somewhat unexpectedly, immateriality can be understood in many significant registers as being primarily a highly sophisticated visual practice, in the sense that it is precisely the sensual and embodied dimension of the visual (as opposed to touch, hearing, smell, etc.) that sustains the immaterial. It is in effect known only through a produced, de-corporealized understanding of sight (though this is very different where haptic understandings of sight might prevail – see also Eck 1998). Significantly, modern and especially modernist immaterial practices tend to use what can only be called trompe l'oeil techniques to realize their goals. The colour white is just one particularly significant vehicle for achieving the effect of immaterial luminosity, where in the Soviet Union it could be equated with a weapon towards the destruction of the vestiges of pre-revolutionary life (Buchli 1999: 52). Similarly, for Wigley (2001) white is produced through the addition of layers of white to create, paradoxically, the effect of a subtraction or negation required by an emerging modernist aesthetic.

The physicality of the immaterial

This is why, in considering the visuality of the immaterial as often being additively and materially produced through techniques of trompe l'oeil, one can speak quite emphatically of the physicality of the immaterial. This point is well-noted by the art historians Hammer and Lodder (2004) (see also Hill 2006 and Bois and Krauss 1997). They note how a positive description of what the immaterial is in art historical scholarship is stubbornly elusive. However, they identify critically a complex range of formal and material techniques that evoke the immaterial. They identify seven technical means paraphrased below by which to achieve this (Hammer and Lodder 2004: 47–48):

1 To polish the surface of a solid form to deflect attention away from its material presence. Examples of this are the shiny metallic surfaces of Constantin Brancusi, David Smith and George Ricky.
2 The use of paint, patina or finish such as can be found in Vladimir Tatlin's work (model for a monument to the Third International), or Aleksandr Rodchenko's hanging constructions imitating steel, Alexander Calder's work as well as David Smith and Anthony Caro.
3 Rendering material especially thin or narrow, such as in the work of Alberto Giacometti, or Brancusi.

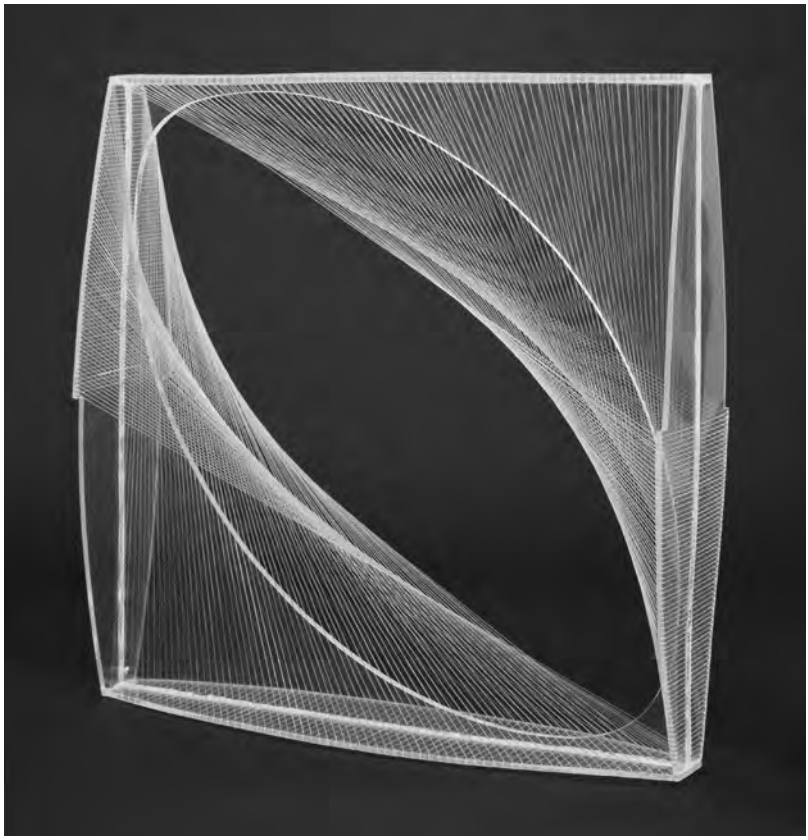

Figure 1.3 Linear Construction No. 1. Naum Gabo (1890–1977). © Tate Modern, London.

4 Assembling work from planes or rods ('drawing in space'), such as certain cubist sculpture or Tatlin's counter-reliefs.
5 Creating planar elements out of glass or plastic, such as Noam Gabo's work (see Figure 1.3).
6 Defying gravity through suspension, such as in Rodchenko's or Calder's hanging works.
7 Creating kinetic objects, further defying gravity by mechanical means such as the addition of a motor to Lazlo Maholy-Nagy's Light-Space modulator.

What Hammer and Lodder show is not only how the immaterial is only realized in the most emphatic material terms (see Rorty 1970; Thalberg 1983),

but more significantly that this represents a form of illusion or trompe l'oeil that is rendered through the manipulation of very specific materials and technical effects to achieve degrees of apparent immateriality, physically. In other respects this is a way of creating a particular sensorial 'relation', a kind of attachment or detachment through the manipulation of the senses with its particular effects (hence trompe l'oeil, the deception of the eye). As they note: 'In reality, a dematerialised sculpture is just as material in its impact on the senses, albeit in a different way, as a very literal and emphatic presentation of some physical substance' (Hammer and Lodder 2004: 50). In addition, they observe that these effects are singularly achieved in relation to the understanding of a bodily presence that apprehends these degrees of immateriality in proportion (or relation) to the body of the viewer and the effects these techniques achieve. As Hammer and Lodder (2004: 49) note, what is 'dematerialised' is 'relative to a norm'. Whether at small or large scales (miniature to monumental) these are all achieved in relation to an understanding of a particular kind of body apprehending the immaterial through these technical effects (Hammer and Lodder 2004: 49). The question that this observation begs is then what kind of a subject does a particular immateriality produce as it is so emphatically focused on the embodied viewer, the viewer's relative scale and the manipulation of the viewer's senses?

If what is considered immaterial in the sculptural production of form is seen less as a form of illusion as opposed to imitation, an imitation of a transcendental ideal (as suggested by Krauss 1977 in Hammer and Lodder 2004: 50), then one might begin to think of immaterial techniques in sculpture as a particular kind of skeuomorph. Skeuomorphs, like other 'kitsch' and ascetic objects (which 'shine' as we shall see in Chapter 2), move from one realm of prestige into another or through the imitative magical appropriation of power of that which is being imitated through the registers being manipulated by the skeuomorph (Knappett 2002). What then is this power and how does it work in immaterial practices? What implications do these have through their apprehension in terms of our understanding of the human body and scale and forms of personhood? It is in this question of personhood that the nature of human attachments becomes significant for understanding the immaterial.

Attachments

By examining a number of case studies where the material world is actively and consciously rejected one can have a sense of what precisely is at stake when engaging in immaterial practices and the means by which these are achieved and in particular the nature of social attachments

forged within. Having said this, there is a distinctive Western tradition in which this understanding emerges that I hope to argue is the basis of Western understandings of the terms of social attachments and forms of moral personhood and the material circumstances in which these forms of being are possible. Balibar notes this (see Balibar 2006) regarding the intimate connection between the self and property ('propre'), and the ambiguous relationship of the self to the external that is owned and constitutive of one and the other, in terms of the 'other's' incorporation into the 'self'. Immateriality is most often understood, particularly in ascetic traditions (but by no means exclusively to them), in terms of regulating attachments, of either extending attachments or limiting them and thereby establishing the contours of sociality. That is what constitutes a subject/self, what corporate bodies might exist and ultimately how power is distributed, regulated and deployed.

William Pietz, in his discussion of the fetish, notes that the fetish as such is the anxious result of a historical clash of cultures and economies on the African west coast. Here incommensurable understandings of the material and the immaterial came into contact. How attachments socially and materially were made conflicted because of 'the encounter of radically heterogeneous social systems' (Pietz 1985: 7). The fetish is the result of such displacements and clashes, like Sansi-Roca's Candomblé stone and its peculiar abject qualities (Sansi-Roca 2005). This natural stone as it emerged in Candomblé ritual can no longer be reconciled with the lost original ritual context from which it was severed and from which it emerged. Nor can it be accommodated within the space of museums or other interests that might claim it because of its previously held ritual power. It has to be held in limbo, in storage but out of view, as irrefutably meaningful but unassimilable to any existing context – and as a result it is radically abject and non-dimensionable (Sansi-Roca 2005).

But as some of the previous examples have shown, the immaterial can be construed as a radical (and promiscuous) form of attachment, that because of its materially attenuated dimension can act in a fluid and promiscuous fashion facilitating new ontologies and new forms of knowledge, such as the chemistry of Lavoisier (Roberts 2005), or, as we will see in the forthcoming chapters, the Christian precursor of the enlightenment era's universal subject (see Cannell 2006). Such sensuously mortified abstractions lie behind Thomas's (1991) understanding of the promiscuity of early ethnographic images that make them more assimilable within other systems of knowledge. Abstraction – counterintuitively – rather than putting things beyond reach, serves to focus attachments and directs them towards and beyond a specific sensuous material engagement. Similarly, Vidler's (2000)

discussion of the abstracted architectural drawing ensured that a certain purified and abstracted form of knowledge raised it out of place- and class-bound specialist niches to be readily appropriated and used within a wider social and spatial domain. Likewise, the chemistry of Lavoisier (Roberts 2005) in the eighteenth century took advantage of more abstracted, less place- and sensually bound forms of knowledge which could be translated and reproduced across spaces to create a more powerful, universal and reiterable chemistry by recourse to these abstracted forms of knowledge (see also Miyazaki 2005 regarding the abstraction of finance theory). Thus a certain perfectibility of iteration is enabled within an expanded space and, one might add, an eviscerated sensorium that would enable a powerful normativity (Rouse 2002). Abstraction at once lifts things out of sensually bound place, purified into a more attenuated, sensually restricted, but nonetheless more open and dispersed universal space reconfiguring our social and material terms of reference. Abstraction facilitates certain kinds of promiscuity towards the realization of new fixities because of the particular sensuous dimensions it rejects and the more attenuated ones it exploits. This is precisely what bothered Marx about capitalism's evisceration of the senses. Capitalism's abstraction of the weighty, sensuously dense sociality of labour as mere (yet powerful) abstract, universal and fluid 'exchange value' violently disrupted the sensuous and socially embedded terms of labour. He pointed to an agonistic 'misrecognition' of these conditions as a 'fetishization of the commodity form' that would eviscerate and mortify the material, social and sensuous forms of labour and life into exchangeable commodity forms such as 'labour value' (Marx in Elster 1986), or how this interchangeability of labour value enabled the notion of the interchangeability of human life that this Marxian insight provides following Dipesh Chakrabarty, which girds our understanding of concepts such as universal human rights applicable to all people at all times (see Chakrabarty cited in Maurer 2005: 24).

Kitsch and the immaterial

Such misrecognitions and misattachments are what lie behind the injunctions suggested by the concept of kitsch, which like the immaterial are important manoeuvres of power over the terms of the material world. Both kitsch and immaterial practices seek to effect a relation to another world and realm of experience beyond the one at hand and manipulate multiple material registers. Both are literally aspirational, in terms both of social class within conventional notions of kitsch and of achieving another utopian realm (the Christian community, the socialist

revolution). Both attempt to deny or refigure the material world at hand towards a deferred goal, either through ascetic practices that mortify the material or through kitsch practices of emulation, 'fakery' etc., which also 'mortify' in an attempt to index an aspirational realm. Both kitsch and immaterial practices trade in analogous notions, of 'cheapness' in terms of kitsch and 'worthlessness' in terms of the immaterial. Kitsch is very low, and the immaterial is often (though not always) very high, both use material techniques of hinging, trompe l'oeil, imitation, magical contagion and skeumorphism (Knappett 2002) to achieve their divergent but parallel ends. Both are profound exercises in power in the creation of subjects and both are abject or transcendent depending on existing asymmetries of power. The art historian Boris Groys (1992) described the Soviet avant-garde and Stalinist socialist realism as existing on a continuum like that of the immaterial to kitsch. Groys' conclusions are not surprising when he argued that the socialist-realist 'kitsch' of Stalinism, the purported enemy of high modernist avant-garde aspirations, was in fact the more logical and more perfect realization of these very same aspirational modernist principles along with its attendant notions of subjectivity and personhood. The hidden affinity between the ascetic modernist communard and the petit-bourgeois materialist were logically expressed by the seemingly paradoxical sloganeering of the Cultural Revolution, when one could speak quite logically about 'petit bourgeois intellectualist abstractionism'. The Benjaminian dialectical object identified by Christina Kiaer (2005), which negotiates two incommensurable realms in hybrid material registers in the transition from pre-Revolutionary capitalism to socialism, is an affirmation rather than a misrecognition of this incommensurability between two different realms about which both the immaterial and the fetish/kitsch object 'hinge' (see also Povinelli's 2001 discussions of incommensurability). One is valued positively, the other negatively, but both work in a similar fashion through misrecognitions, both naïve and revolutionary, depending on politics to overcome given material circumstances and effect different social relations and attachments: the revolutionary ideal, or more prosaically 'the Joneses'. This is what is suggested by McCracken (1988: 109) when he describes the 'kitsch' object as aspirational and not of the actual circumstances of daily life, but which indexes imperfectly and without full material responsibility its instantiation (which is beyond present means – 'not affordable') as the aspiration towards a better future. Gell's (1998) notion of 'tackiness' is one aspect of how materially and sensorially such attachments are forged – the 'tackiness' of kitsch items that facilitates availability and produces inappropriate attachments, hence the 'tacky' and often 'garish' articulation of the sensorium that denigrates tactility and physical material

attachment. That is why something makes one 'sick' or 'queasy' – it is apprehended in a decidedly visceral way, suggesting a different relation within the hierarchy of a given sensorium. Hence colour's ambivalent relation to the immaterial – such as Reformation-era concerns with colour – and sensuality, that are invoked to reject one aspect of the material realm (through the accusation of idolatry) towards a more universal, immaterial engagement with divinity, which through similar technical effects but opposed means facilitates a sensorial detachment in a distinctly material way through the strategic use of the colour white and other similar techniques (see Buchli 1999; Dyer 1997; Hammer and Lodder 2004; Wigley 2001; Young 2004; Bois and Krauss 1997). Or, similarly, the absence of colour could begin to suggest one's detachment from the world of the living, as in Hoskins' (1998: 51) observations regarding older people and their plain Betel bags.

Duration and durability

The two issues of materiality and time are intimately related through concepts of duration which are regulated materially. Materiality can be said in certain instances to produce time (see Strathern 1990 on the artefactual production of time; also Gell 1992). The notion of an abstract time separate from any form of materiality, like depictions of (universal) space at the expense of (particular) place is associated with enlightenment-era thought and emergent capitalism but is by no means just restricted to these historical and cultural circumstances. Universal abstract time, like abstract space, suggests a universal materiality that the logic of the commodity requires to be fluid, interchangeable, and in a sense immaterial – it is within such spaces that all sensuous phenomenological dimensions are literally evacuated in favour of abstracted dimensions, notoriously as 'exchange value' in Marx. The material, however, is socially and contingently sustained within communities, and that contingent duration marks time and the production of different scales of time and social relations. Yet the conservator's urge to preserve at times denies this particularity and the contingent temporality of the artefact in an effort to surmount time and the particular and contingently durable in order to realize the universally eternal, enduring and timeless (Classen and Howes 2006; Edensor 2005; Strathern 1990). Notions of universal cultural heritage which must be preserved for posterity are the means by which this kind of universal time is produced. This universal materiality, which is at odds with the contingently material (which decays, is used up and is rejected), along with the logic of the capitalist liquid and immaterial commodity share the common qualities of transcendence, interchangeability and

timelessness (see also Speranza 2007). This is what is at stake when an 'artefact' as such is institutionally constituted and removed from circulation to be made part of some universal 'heritage' or some other similar homogenous and transcendent category.

As Marilyn Strathern rather famously noted: 'Ownership gathers things momentarily to a point by locating them in the owner, halting endless dissemination, effecting an identity' (Strathern 1999: 177). The gravity and weightiness of the heritage monument is just one such means by which to stem the effects of 'endless dissemination' and I would add inevitable dissipation through use, decay and entropy to 'effect' that which we call cultural property or universal heritage and 'effecting' this abstracted and universal entity into something that is proper to someone or some community (with apologies to Balibar's sense of 'propre') according to Western universalist terms. As in the case of indigenous groups, this becomes the means by which 'recognition' and social power can be 'effected' through notions of cultural heritage and property (see Rowlands 2002).

Dualisms

As Miller and Rorty both note, people are rather stubbornly attached to their dualisms and will proceed to act and structure the social and material world according to them no matter what we in the social sciences might say. These dualisms seem to insist on staying and people seem to want to act more in keeping with the *res cogitans* (the body independent thinking-thing) of Descartes. It is not reasonable as anthropologists to think of our informants (and ourselves) as pathologically unreasonable in these matters. And similarly it is equally unreasonable to think that our theoreticians are mired in some quasi-mystical preoccupation with the immanence of material remaindering. These are both, as Locke's observations might seem to suggest, ideologically motived actions born out of social and political necessity to secure the terms by which social categories can be maintained and challenged. The 'immaterial' has been produced and will continue to be produced no matter what logicians and social scientists might say. However, we should not take this at face value as our Durkheimian tradition instructs. Rather, it is the purpose of this study to examine here this highly significant but poorly understood aspect of material culture studies – the immaterial, and specifically the active and conscious rejection of the material world which is the active assertion of this 'non-sense' and stubborn dualism that is otherwise so problematic. Such dualisms drive a number of cultural projects, such as anti-consumerism, asceticism, and various other social projects, to transcend

in one way or another the material world and produce novel forms of social life. This study will argue that the process of making the 'immaterial' along with making the 'material' are both profoundly powerful and related operations that work to exert social control and delineate the borders of the imaginable, and the enfranchised. It establishes the limits of the 'incorrigible', *per* Rorty, and also establishes the boundaries between the profane and the sacred (Agamben 2007). The immaterial is one of the primary means by which social relations are contested and forged, along with the ethical terms in which our attachments, both social and material, are formed.

Rorty notes how the man in the street is not going to be dissuaded from his insistence on the dualisms that produce an immaterial mind (the Cartesian *res cogitans*), just as does Miller. Such dualisms are productive of the ontological categories that shape and structure social life – they simply work to effect the subjectivities that we have become committed to (Rouse 2002). Like the abstractions that facilitate a more universal chemistry or the sensually impoverished ocularcentrism that produces a radical capacity with which to wield power over things and people, or the almost Kantian understandings of noumenal abstractions that structure the social and ephemeral material life of the Ye'cuana (Rivière 1995), or the ancient populations at Lepenskii Vir (Boric 2002), these are powerful enabling forces. They are very efficient ways of expanding the capacities and power of people and things, partly because they operate on the world as it is without having to constantly re-iterate and materialize new states of being – they merely reconfigure conditions as encountered, in a kind of sleight of hand (Strathern 1990), to effect and sustain effective means of being. This is in effect a 'magical' technology following Taussig (1993), equally effective in small-scale societies and the complex modern state.

For this reason I would like to suggest that the pursuit of immateriality, as profoundly powerful as it can be through its social effects, has a particular appeal to the disempowered because it works immediately with the ready-at-hand. In the Western tradition this appeal can most readily be identified with the early Christian ascetics. Subverting a tradition of ascetic stoicism that upheld the structures of traditional pagan life, the Christian ascetics were able to break such ties, because they focused on the body (Brown 1978) – the one aspect of being that even a slave had a certain modicum of control over – with which to break such structures and reconfigure the material and social life of pagan tradition towards the elaboration of a universal transcendent Christian subject – the subject which lies at the heart of Euro-American notions of universalism that underpin such contemporary understandings of self as the notion of 'universal human rights' (Cannell 2006; see also Butler *et al.* 2000).

Thus early Christian ascetics, marginal as they were, could mortify the body in spectacular expression of control and confrontation with the material world as it is found. Focused on the body and the relative power of an individual over their body, it tends to deny the power of community and state. Hence, with increasing institutional power, the early church of the fourth and fifth centuries had to domesticate such ascetic narratives. 'The Life of Anthony' by the Bishop Athanasius was one such attempt to domesticate and bring under the narrative control of the church hierarchy a decidedly radical account of the body and the materiality of the world (see Harpham 1987; Brown 1978).

This theme is reprised many times in the Euro-American tradition, from the Cathar heresies of the middle ages which maintained that the material world was to be rejected as the work of Satan in favour of an other-worldly Christian one, to the Protestant Reformation and various other utopian projects from the Phalanstries of the nineteenth century to the socialist utopian and modernist projects of the twentieth and the anti-consumerist and green movements of the late twentieth and early twenty-first centuries. Recent concerns with 'minimalism' in its various guises – anti-consumerism, green consciousness, etc. – are all highly ethical projects that stand in a critical relationship to the conditions of late capitalism. These movements would be immediately familiar to Soviet modernists who would attempt to control the pernicious effects of commodities and commodity fetishism impeding a higher consciousness. While present-day medical phenomena centred on the body, such as Dystopesthesia (the allergic response to industrially produced smells; Fletcher 2005) and sick building syndrome (Murphy 2006) as well as anorexia (see Bell 1987), serve as radical rejections of the materiality of the world and the body from the perspective of individual alienated subjects, which often can, in the cases of Dystopesthesia, and sick building syndrome, exert control and achieve biomedical and legal status through the manipulation of tort law and class action suits as novel aggregates of community that work within and against neo-liberal forms of governmentality (Rose 1998; Simon 1988).

The productive work of dualisms

The distinction between the material and immaterial, as can be seen, is highly problematic. However, it is a problematic dualism that, like many other dualisms such as nature/culture, mind/matter, human/non-human, Western/other, has formed the critical ground for much critical theory in the past few decades. As Miller (2005b) has noted and Rorty affirmed, despite our best efforts as social theorists to demonstrate how

groundless these dualisms are, our ethnographies point to how nonetheless people stubbornly insist on them. It is important to recognize that such dualisms are productive of relations of power and social and material efficacy – they most emphatically get things done within the ready-at-hand. It is necessary for anthropologists to take such stubborn ideas seriously and to seriously consider what they might be 'doing' as part of our Durkheimian legacy that ultimately insists on the 'rationality' of the seemingly 'irrational'.

For the difficulties that have been laid at the feet of René Descartes regarding the inadequacies of Western thought, especially at the hands of Merleau-Ponty (Brodsky Lacour 1996), the dualist Cartesian subject has been at the heart of an extraordinarily powerful tradition. Ong (1967), as with others, such as Brodsky Lacour, demonstrates the radical and productive work that was produced within this ontological tradition from which the Cartesian subject emerged. This is not the place to speak to the indisputable inadequacies Cartesianism has presented – this has been the focus of much well-rehearsed social theorizing since Merleau-Ponty erected his arguments on the basis of his Cartesian straw man (Brodsky Lacour 1996). However, there is a tendency despite our better intentions to treat this kind of Cartesian rationality as just another form of 'irrationality' to be overcome, refuted and revealed to be just another 'fetish' or misrecognition or pathology that is ultimately 'irrational'. The lessons of Foucault and Butler require us to take the productive capacities of such dualisms seriously. Despite the better intentions of philosophers of science such as Karen Barad, who insist on overcoming this Cartesian legacy separating immaterial mind (*res cogitans*) from matter towards the realization of a radical and liberating form of agential realism based on the material-discursive intra-action of the world in which humans along with other non-humans are part of nature's continual enfolding. The 'man on the street' will probably prefer to effect himself in terms of Descartes *res cogitans* rather than the idealized intra-active archetype of the underwater brittle star which Barad (2007: 369–384) seems to assert.

Similarly, the dualist distinction between the visual and the material is very much an artefact of the kinds of representational distinctions that lie at the heart of Western onto-epistemology and its concepts of the material. This distinction has forced rather procrustean analytical distinctions within the history of material culture studies: surface vs. interiority, visual over material, textual analogies or embodiment etc., that has characterized the various 'turns' within this field of study. The field itself within anthropology is a peculiar artefact of colonial scale focused on portable artefacts and equally promiscuous drawings (Thomas 1991) and the knowledge they produce in which we are still contained. Yet these conceptual distinctions are challenged by engaging the immaterial

which challenges these assumed scales and calls for a more robust and nuanced account of the material/immaterial distinction and the nature of its productive capacities (consider also Bois and Krauss 1997 and their understanding of the 'formless'). As the earlier examples of the icon and the atom suggest, thing, image and text are increasingly difficult to disengage, as they have been in different places and times.

Realism

The question of the 'real' has been the object of controversy when considering the material with particular relevance to the question of material culture (see Barad 2007; Hacking 1983; Latour 1999; Rouse 2002). A number of thinkers have challenged understandings of the material not as a passive reflection of society but as actually productive in and of itself of our social and material worlds (Barad 2007; Butler 1993; Foucault 1977; Hacking 1983; Latour 1999; Miller 2005a,b). Daniel Miller has noted how the social has been given precedence in studies of material culture while the productive and co-constitutive nature of the material has been side-lined (Miller 2005b). The question of the 'real' and its 'thingness' thus remains rather inscrutable, curious and problematic.

When material culture is not thought of in terms of its semiotic or text-like qualities then a kind of 'thingness' emerges that seems implacable. This is what Pietz (1985) would call an 'untranscended materiality', what Pinney (2005) would refer to as 'figural', or what Keane (2005, 2007) has discussed in greater detail in terms of a 'bundling' that is composed of openly evolving but non-arbitrary qualities. This is also the 'thingness' that characterizes the extraordinary materiality and powerful agency of Sansi-Roca's Candomblé stone (2005). Whitehead might characterize these qualities in terms of a 'stubborn fact'. The stone of Sansi-Roca shows how such 'stubborn' qualities foil attempts to contextualize it and deploy it towards other uses in ways that are historically contingent and distinctly non arbitrary. Barad and Rouse might understand such a phenomenon as a kind of realism, like phenomena of the natural sciences, where certain categories of objects such as Sansi-Roca's stone or certain indigenous art forms (Myers 2004) are characterized by a stubbornness and implacability. The more radical claims of social constructionists are not really able to prevail here in these respects. This is a stubbornness and intransigence that suggests a certain 'incorrigibility' which might defy our logical frameworks (following Rorty) but is insistent in terms of its ability to enable our divergent, competing and emergent capacities for being.

This is also what other thinkers in other disciplines such as STS (science and technology studies) and geography, among others, observe in terms

of a general 'recalcitrance' of things (Braun and Whatmore 2010) which serves as a post-humanist critique of the so-called mute qualities of the material which argues in turns for its 'vitalism', 'recalcitrance' and its 'agency' that exist outside of human-centred and more radical social constructivist approaches. This strain of thought, primarily influenced by the work of Bruno Latour and Isabel Stengers, argues for taking 'non-human' entities and material culture in particular as active entities in the constitution of social worlds that must be given an independent voice, and agency separate from and on equal terms with human agencies for the understanding of human societies and their material worlds. There can be little room, in light of recent understandings within the social sciences and the philosophy of science, to argue against the importance of the heterogeneous and co-constitutive effects of human and material interactions and their constantly shifting boundaries, hierarchies and effects. But there is a strain of thinking which characterizes this 'recalcitrance' (Bennett 2010) in terms of what appears to resemble a metaphysics of 'immanence' that exists in 'excess' and which is transcendent of human affairs despite statements to the contrary – what Connolly (2010) avowedly also calls an 'immanent materialism'. Bennett (2010) refers to this as the 'vitalism' of things which exists outside of human affairs yet is constitutive of them. However, this potential slippage into a certain metaphysics of 'immanence' characterizing the 'recalcitrance' of things also betrays a very important political aesthetic. Bennett is very clear regarding the importance of this aesthetic for constituting a more just and ethical settlement for the constitution of our material and social worlds. Such 'vitalism' 'is good for humans', as Bennett (2010: 48) rightly claims, producing a political ethic of engagement and care for non-human and material entities that would support more just social and material worlds.

This is also what archaeologists working in the vein of symmetrical archaeology (Olsen 2010; Olsen *et al.* 2012) argue for more recently in their assertions regarding the 'thingness' of material culture – an 'incorrigible' materiality that is always in excess of our interpretive projects and whose 'thingness' and agentic qualities must be reincorporated into a symmetrical archaeology where things and humans exist in a more democratic relation to one another rather than the decidedly 'asymmetrical' approaches which privilege the mind, the social or the cultural over mute matter. Such approaches also valorize an immanence that is inherent to the material a 'vitalism' (following Bennett 2010) possessing 'partial autonomy and transient essences' (Olsen *et al.* 2012: 16). However, such an immanence, it is argued here, is an effect of the evident entanglements (Hodder 2012) and conflicted commitments that result from our varied engagements with the material world, that produce such 'excesses'. That such 'excesses' hold out the promise of imagining and inhabiting

other worlds is a political commitment that has everything to recommend it given our historic contingencies, as Bennett (2010) quite rightly would have us do. However, this is a political aesthetic not a metaphysic, one born out of the 'stubborn facts', following Whitehead, of our commitments as they have emerged within our material entanglements (Hodder 2012) that sustain our social worlds and our productive dualisms ('symmetry' or 'vitalism' being just another productive quality to enable our worlds). As Whitehead (1978: 129 [italics in the original]) states:

> we finish a sentence *because* we have begun it. The sentence maybe embody a new thought, never phrased before, or an old one rephrased with verbal novelty. There need be no well-worn association between the sounds of the earlier and the later words. But it remains remorselessly true, that we finish a sentence *because* we have begun it. We are governed by stubborn fact.

Such 'thingness', 'vitalism' or 'recalcitrance', like the 'woodness' in Isaiah 44 and the rejection of idols (chapter 4, note 6, pages 130–131), reworks existing material and human configurations and attachments in order to remake them and make them available towards novel uses following Bois and Krauss (1997) and their discussion of Georges Bataille's notion of 'base materialism'. And like Isaiah, these authors also invoke the question of false idols and false attachments and are cautious regarding the accusations of animism and fetishism that might be cast towards them in terms of this guardedly revived animistic vitalism. Some, such as Stengers and Latour, as Disch (2010) has noted, even embrace this ancient accusation through neologisms such as the 'faitiche' (the 'fact/fetish') which attempts to capture the contingent heterogeneous imbrications and configurations that a new settlement surrounding the independent agency of things and humans might entail, and with it new emergent understandings of materiality that might emerge (Disch 2010). The 'faitiche' embodies this contradictory double movement, as Disch (2010) notes, while asserting a guarded transcendent immanence (Connelly 2010) that might incur the wrath of a modern-day Isaiah. Such an idolatry might be familiar to earlier seventeenth-century figures such as the Protestant quietist Bourignon and Schwamerdam that will be discussed later here, who also took issue with such similar 'faitiches' of the natural sciences that distracted from the true apperception of the divine but by whose very constitution of the 'faitiche' in fact produced contingently the transcendent, immaterial and incorrigible.

The post-structuralist preoccupation with signification has meant that a certain Marxian emphasis on the material and embodied action have given way to questions of meaning. A focus on 'realism' and a reappraisal

of the empirical legacy might help to redress this imbalance. It is not a question of engaging in some new form of essentialism but taking into account the sorts of enduring phenomena that Hume understood[2] in the terms of a statistical regularity – phenomena that shape the worlds we are committed to and within which we are 'intra-actively' produced and co-constituted (see Barad 2007; Rouse 2002). This is an understanding of contingent realism or a pragmatism as championed by Rorty (1991) that requires us to rethink sustaining metaphors until we need new ones while paying due honour to those no longer needed. This is not done out of some form of ancestor-worship but out of recognition of the contingencies and commitments to which they were adequate once and are no more, so as to ensure our own abilities to recognize the contingent effectiveness and limits of the metaphors in which we emerge.

As Whitehead has suggested, following Locke,[3] claims of what constitutes 'substance' are metaphysical and arbitrary but vitally important for maintaining the worlds we inhabit (Whitehead 2000: 22–23, see also Bois and Krauss 1997). 'Matter' and 'substance' and our preoccupation with fixing them are the result of a misplaced effort, following Aristotle, to fix 'the ultimate substratum which is no longer predicated of anything else' (Whitehead 2000: 18). And this effort, Whitehead notes, is always problematic: 'Accordingly it would seem that every material entity is not really one entity. It is an essential multiplicity of entities' (Whitehead 2000: 22). Whitehead reprises thinking similar to Locke's metaphor of his 'Indian' account of the world supported by a great elephant, which rested upon a great tortoise which then rested on 'something, he knew not what' (Locke 1975: 296) – 'substance' qua 'substance' can never be fixed and exists only as a metaphysical datum upon which our contingent sense of the world depends. With this in mind one has to remember why material culture studies in itself emerged as it did historically and the onto-epistemologies it enabled and what these might be in the present. It is vital to consider the conditions of these earlier material productive capacities both historically and ethnographically in terms of the different ontologies they enable (Vilaca 2005; Viveiros de Castro 1998), their respective costs socially and materially and the kinds of social life they enable.

Towards this end very useful terms of reference are offered through Barad's notion of 'agential realism' and 'intra-action' as well as Whitehead's own conceptualizations of 'assemblages', 'events' and 'nexus' (see Stenner 2011). These approaches within the philosophy of science are very helpful to anthropologists, who initially did not have to grapple with such issues historically. However, anthropologists have also been grappling with some of these same dilemmas while not fully attending to them despite a common interest in the material. Anthropology, however,

because of its emphasis on the intimate and sensuous encounters of daily life brought about through the ethnographic method, is better placed to engage with these nuances. Philosophers of minds such as Rorty suggest going back to understanding the 'man on the street' in terms of these persistent dualisms and their attendant metaphysics of substance – this here is the natural terrain of the anthropologist. The intimate sensuous scale of anthropology helps us address how such 'intra-actions' (Barad) and 'matters of taste' (Rorty) work. For this reason, the relation of the material to the immaterial and a more nuanced understanding of the productive capacities of the immaterial need to be better understood along with the changing nature of the boundaries and edges that these analytical distinctions produce. The question of the description of things needs to be thought through as an aspect of the immaterial. When an STM atom and the IBM logo are essentially one and the same and difficult to meaningfully disentangle; or when the 3-D printed artefact is similarly hard to disentangle, being at once both an artefact and text-like code, novel forms of material and social life emerge that have yet to be understood in terms of their productive capacities and the worlds they open and foreclose.

In discussing the objects of material culture one might consider what Rouse proposes regarding other scientific phenomena: 'scientific practices disclose natural phenomena rather than objects, in a sense in which scientific practices are themselves understandable as natural phenomena' (Rouse 2002: 309). Material culture might be more profitably considered as 'practically constituted components of repeatable phenomena' (Rouse 2002: 313). These phenomena, in these respects, also comprise the distinctions we make between the material and immaterial. As Rouse (2002: 347) notes: 'We are responsible for our choices not because we constitute them, but because we are involved in them with stakes to which we are accountable, epistemically and politically'. The question of what constitutes 'thingness', the matter of materiality and the immaterial are of profound interest, as we shall see in this book, and productive of the very worlds we inhabit. With reference to Butler's (1993) use of Ernesto Laclau's notion of a 'constitutive outside', there are certain palpable limits that we are committed to and whose limits in turn shape new forms of social and material life. Rouse argues that these limits and 'constitutive outsides' are not arbitrary, they make up the 'norms' to which we are committed and within which we emerge 'intra-actively', following Barad. Sansi-Roca's stone (2005) in its implacable materiality is an example of how such 'limits' matter and how varying ones come into conflict with one another producing the effect of an implacable 'thingness' because of the way in which these conflicted commitments

converge upon the stone. In this respect, the quasi-mystical 'thingness' that the stone evinces is a product of the many conflicting commitments it embodies and the way in which many interests are practically constituted in reference to it and, more importantly, are constituted incommensurably (consider Povinelli 2001; Strathern 1990). 'Thingness' and its 'excess' is merely the effect of these incommensurable and conflicted commitments. To assert 'thingness' is merely to assert that we have common commitments to the various terms in which these commitments arise and within which we are 'practically constituted' (Rouse 2002) in our worlds and which cannot be reduced to one commitment or another. 'Thingness' is what is inassimilable, incommensurable and in excess. The seemingly immanent qualities of things is the effect of these commitments towards constituting these worlds. Its excess is contingent historically and socially, the effect of the practical constitution of our worlds under these conditions, as is our insistence on the logically untenable but normative bifurcation of the material and the immaterial. The call to attend to 'thingness' is a call to attend to the 'excesses' that are produced within these conflicted commitments and more importantly a call to be responsible to the practical conditions in which we constitute our communities and our worlds and the dualisms between the material and immaterial we produce (Rouse 2002: 347).

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Notes

1 Rapid manufacturing or 3-D printing is poised to revolutionize manufacturing. Objects are produced from binary code like current digital music, and built out of any material and any imaginable geometric configuration layer by layer like an ink-jet printer but vertically in three dimensions. The object as a stable entity does not really exist; all that is stable is the binary code (see Hopkinson *et al.* 2006).

2 Consider Hume's *Treatise on Human Nature*, and Rouse's criticisms of the presumptions concerning the a-priori nature of objects, rather than as phenomena that are the result of contingent 'intra-actions' (Rouse 2002: 312–313).

3 I am very grateful to Anna Hoare for drawing my attention to the work of Locke and the metaphysical nature of substance.

2 Immateriality and the ascetic object in early Christianity

In this chapter we will examine the material effects of the early Christian ascetic tradition as regards the production of the immaterial. It will focus on the way these effects help to make and unmake people and the material world: in short what does the paradoxical mortification and rejection of the material world enable – what does it 'do'? The Western ascetic tradition is emphasized because of its privileged position in Weber for the development of Western capitalism and the modernist traditions of the West and our understandings of material culture, in particular from whence it is derived, as well as for the development of Western notions of subjectivity based on Christian concepts of the universal individual (Cannell 2006; Keane 2007). The literature on asceticism is extensive and wide-ranging. Asceticism has been written about extensively by classicists, theologians, historians and to a certain degree by sociologists and anthropologists. It has hardly been addressed within the sphere of anthropological material culture studies (with a few notable exceptions: see Engelke 2005, 2007; Keane 2005, 2007; Pietz 2002). Consequently, despite its profound engagement with the material world, the material practice of asceticism is poorly understood (though see Miller 2009). It is almost as though material culture studies, by virtue of its active embrace of the materiality of human practices, has taken the ascetic rejection of the material world at face value and rejected it as well.

One of the things that characterizes the Christian ascetic tradition in terms of its relation to materiality is the fact that the ascetic act is always seen as a retreat in some degree from society at large and that the first 'thing' that is withdrawn is invariably that which is most readily available to any one person: the body of the ascetic (Brown 1978), which becomes alienable from previously inalienable social relations and as such becomes separate, think-like and something to be worked on – an ascetical body available for other purposes (Miller 1994, 2009). In many ways one can

define an ascetic body and ascetic object as something being made available for other social projects. Attitudes towards the ascetical body and towards the material world at large are integral to each other, and to the way in which social, bodily and material attachments are made, sustained and broken. The first project of the Christian ascetic was to produce a new kind of body in the classical tradition of *askesis*, which, unlike traditional bodily attachments within classical *askesis* that sustained the moral hierarchies and structures of traditional classical society, withdraws from it and posits a radically new realm of relationships (Harpham 1987; Miller 2009).

Producing the immaterial

The body as 'exemplary artefact'

The great ascetic` traditions of the early Christian church were primarily focused on the body. Harpham (1987: xv) describes the ascetic body as the 'exemplary artifact: what ascetics displayed to their audience was precisely their *form*'. As Patricia Cox Miller observes (1994, 2009), the ascetic disposition focuses on the body as the ready-at-hand, which is individualized (see Cannell 2006), removed from existing social and moral entanglements and rendered 'thing-like' (see also Rio 2009), alienable, separate from inalienable social obligations and moral networks. Thus removed and alienated it becomes the focus of work which, depending on specific contexts, is either legitimate or illegitimate. The ascetic body in this tradition is a particular hybrid artefact/object, person-as-thing, to emulate, to become a thing, to reproduce the Christian prototype, and to capture its power and efficaciousness through mimesis (Gell 1998; Taussig 1993). St. Simeon the Stylite, the desert ascetic who reputedly sat on a column for 36 years, was just such an extreme manifestation of this radical new kind of thing/person hybrid (see Figure 2.1).

According to Patricia Cox Miller (1994), this thing\person hybrid was a dematerialized body which through its mortification and decaying becomes more and more 'thing'-like, indexing another world, another divine body that defies conventional notions of time and space. Miller (1994: 147) uses narratives describing St. Simeon the Stylite as an example of 'the ascetic practice of representing unrepresentability by using the material at hand, the body'. Thus the narratives describing St. Simeon describe him as standing on the top of his column, motionless with hands outstretched, or prostrating himself countless times, with the result that his body became horribly deformed with ulcers, tumours and wounds filled with worms which, when they fell off, would be

Figure 2.1 Icon of St. Simeon the Stylite. © Tretyakov Gallery, Moscow, Russia/Bridgeman Images.

collected as 'pearls' by onlookers. This body was at once all too human because of its decay but at the same time indexed the beauty of the divine body that these ascetic practices allowed onlookers to gaze at. This was a body that through fasting and abuse 'elicited perceptions of the corporeal plentitude of paradise' (Miller 1994: 150) that also marked it out from conventional social contexts to index this otherworldly body whose abuse and torments served to indicate an 'angelic' shine from the other world (Miller 1994: 150). This was a kind of body that along with hagiographic writings and visual culture, namely icons, was produced within

a novel reworking of the sensorium asserting classical notions of haptic visuality in novel ways to presence the divine, produce the immaterial materially (Miller 2009) and create what would be the Christian subject and *ecumene*. In addition, this new sensorium could manipulate multiple registers such that putrid 'worms' could be at the same time luminous 'pearls' (see Miller 1994: 146–47, 2009).

Productive asymmetry and imperfection

Key to this tradition is the ultimate imperfectability of any ascetic action that prevents it from being resolved one way or the other. Harpham (1987) notes that Athanasius, preoccupied with the imperfect nature of his hagiography of St. Antony, comments that it will in fact suffice to act as a model/prototype for other Christians to emulate. Its imperfection is necessary to be able to act as a model/prototype. The act of interpretation, by virtue of being flawed, necessarily facilitates further interpretative work and thence continuation and iteration. Its incompleteness requires constant reiteration and work, enabling it to be sustained indefinitely into the future. It would have no social power if it did not need to be reiterated and interpreted in order to be sustained and thereby act as an impetus for emulation. According to Harpham (1987: 5), Athanasius knows pure emulation is not possible but it is virtuous to attempt to do so: 'nobody can be another person', but 'virtue resides in the effort' – in the effort of trying to bring together two inherently incompatible realms – 'So both Athanasius and his readers strive for the impossible perfect imitation of Anthony' (Harpham 1987: 5). The requirement for mimesis which is generated by failure assures the success and propagation of the prototype/model (Harpham 1987: 5).

The prototype

The prototype *per* Harpham was the means by which ascetics reproduce themselves as a highly visual, performative and aestheticized process whereby the self was reproduced according to the aesthetic ideal of Christ (see Figure 2.2). As Harpham (1987: 24) notes: 'In the fourth century Gregory of Nyssa wrote of asceticism as a repetition of Christ's original "taking-form" the act by which he fashioned "a beauty in accord with the character of the Archetype" and made of himself an "image of the invisible God"'. The goal was to be more thing-like, as Harpham notes. Asceticism's virtuoso and 'athletic' pursuit would produce boasts such as 'I am deader than you' (Harpham 1987: 26; and see Eisler 1961: 85 on the conflation of pagan athletics and the arena with

Figure 2.2 Byzantine mosaic of Christ. Photo: Myrabella / Wikimedia Commons / CC-BY-SA-3.0.

the Christian monk's cell). Christian asceticism merely inverted the values placed on the body, and the techniques of the self (Foucault 1986; Mauss 2006), seeing the perfectible self not in terms of classical bodily beauty but in terms of disfigurement and mortification (discipline to the other extreme) towards realizing the aesthetic ideal of the Christ/Archetype (Harpham 1987: 27).

Pagan self-mastery was the purview of the elite, whereas Christian self-mastery was concentrated on the self, outside of the social contexts in which pagan self-mastery was formed. This is a form of self-mastery analogous, as Harpham (1987: 29) notes, to Adam Smith's '*homo economicus*, that paragon of rationality whose every act reflects his essential freedom from an institutional context or family obligations in the pursuit of maximum profit' (see also Rose 1998). Harpham (1987: 29) argues that the forces 'destroying *gemuetlichkeit*' with the Reformation were already in

force in the fourth century. These forces were found in the origins of the distinctions between eremitic and cenobitic forms of asceticism, where the former is individualistic and in the desert, and the latter is communal and in the monastic community. These were two competing forms of dissolved selfhood, but with the latter communal one being more amenable to institutional control (Harpham 1987: 20–21; see also Francis 1995: 185).

Harpham's definition of the ascetical self is very useful here: 'What distinguishes all forms of asceticism is the idea that the self is a composite structure containing an essence that transcends, and yet is intimately conjoined with, a substance or medium that is mutable, degraded and rebellious' (Harpham 1987: 36). This is a linking (suturing) hinging relational metaphor that describes the material and representational nature of an ascetic disposition, which, following Barber (2002), involves conjoining unrelated things to create a material nexus in which multiple registers are at work, but whose ambiguous and unresolved multiplicity is inherently productive (see also Taussig 1993 on unrelated things and also Barad 2003).

On this point, it is worth noting, in light of the previous discussion of Athanasius, that the greatest demonic temptation was the illusion of perfect imitation (Harpham 1987: 43). Attaining ultimate and perfect deathlike representation denied the work of the strained yet essential flaws which ensure reiteration and the forging of the common terms of subjectivity, and crucially the possibility of social relations. The prototype must be perfect but unachievable, or achievable imperfectly in order for it to function and organize social life. As Harpham (1987: 43) notes: 'Like flesh and spirit, essence and appearance are in "reciprocal revulsion": the spirit is the revulsion of the flesh and vice versa'. This negation maintains the productive power of the asymmetrical dualism that underlines ascetical discourses. A negation always has as its referent that which it negates; this is an asymmetrical dualism (see discussion in Thalberg and Rorty on pages 11–13) but is interlinked, unavoidable and constitutive one of the other. Nothing is ever no-thing but the negation of specific things that make a specific universe – it is always most emphatically linked as a signifier is to the signified and the productive asymmetrical dualisms underlying Saussurean linguistics. The 'ascetic imperative' (Harpham 1987) – the urge to mortify the perceived world – is analogous to seeing under, to critically interpret, to force the asymmetry of Saussurean interpretation – positioning oneself to 'see' beyond the sign to the signified, to render it separate and available, in a sense to offer a critical view of the world as it is manifest. That is the heart of its moral imperative within these multiple registers, and its productive power.

Similarly, this 'ascetic imperative' (Harpham 1987) to mortify and 'suture' between two incompatible realms becomes a means of manipulating through two registers simultaneously to effect a novel set of relations. Patricia Cox Miller (2009) speaks of the 'angelic' shine of ascetics in their decrepit states and their representation in terms of brilliance, shine, fire and jewels, such as the 'worms' cum 'pearls' in St. Simeon the Stylite, both in the language of hagiographies and their visual and figurative representations in paint and mosaic and other media. Such metaphorical techniques linguistically, visually and materially suggested the simultaneity of the divine and otherworldly along with the base and material through the metaphors of 'shine' and 'brilliance', simultaneously indexing two incompatible worlds within the same site, person or object as a jewel that is at once ephemerally brilliant and light refracting and also a distinctly solid entity. These material qualities, as Miller notes, served both materially and figuratively as a theological exegesis on the presence of the divine in the world and its materialization in the human Christ prototype, which could be at once divine and base. 'Shine' in this context is asymmetrical, indexing a divinity at odds with the material and mundane but paradoxically within the material world, which Miller (2009) suggests is similarly part of the productive power of these mortifactory ascetic practices which can simultaneously be 'decrepit' and 'shining'. This tension or 'torsion', as Harpham (1987: 93) describes it, works to sustain Christian divinity without collapsing into idolatry. Imperfect repetition becomes another means by which to achieve this effect and sustain divinity.

It is important to note here the productive power of these unresolvable multiple registers and repetition, that '*The Life of Anthony* carries repetition into the human community, showing how the origin of Incarnation, already a repetition, could be extended into the future' (Harpham 1987: 84). Thus the repetition of the prototype, as Harpham suggests, its reiteration, its mimesis is a future-oriented process. It is the prototype's agentic instigation towards future iterative actions – a vacillation between a world that is here and one that is not, displaced in time, place or dimension. This displacement has a utopian critical inflection, such as in the asceticisms characteristic of much later times and places, such as Soviet socialist modernism, that were configured to conquer time as opposed to place within the specific terms of its material registers (see Buchli 2007; Buck-Morrs 2002; Ssorin-Chaikov 2003).

The corrupt body and its affordances

Within such ascetic practices the body takes on a particular importance as a site of work and means of exerting social power. Debates in antiquity

tended to focus on the significance attached to the materiality of the body along a continuum identified by James Francis (1995) as to whether or not the body is inherently evil and useless, or neutral and useless, or neutral and useful. The value attached to bodily materiality inflects the terms by which materiality in general could be understood within late antique debates over asceticism and its social and regulatory effects (see also Wilfong 1998). Simply put, an entirely negative bodily value, such that the body and the material world is valued as 'evil' and the 'product of Satan' creates a highly dualist and asymmetrical structural equivalence with the divine. The divine and the Satanic are structurally but asymmetrically equivalent, such as in notions of the 'diabolic city' that figured in later Christian Cathar heresies (Lambert 1998). The radical dualism of certain ascetic movements in antiquity and in early Christianity (and later movements such as the Cathar heresies; see Lambert 1998) effectively withdrew bodies – that is social bodies – from the realm of tradition and society that were the basis of social stability and political power and made them available for other purposes. Such a withdrawal required a radical re-signification of bodily materiality and by extension worldly materiality and the terms by which power and sociality were formed. In another context, Henrietta Moore (1986) offers the example of the Marakwet girl who smears herself in impure ash, rendering herself inherently abject socially, impure and unavailable for incorporation into a male lineage. This demonstrates how the abjectification of the material world effectively undercuts prevailing social consensuses and directly invokes and makes available oneself, one's body, for other purposes. As regards the ascetical practices discussed here, they represent an effort to make oneself available to the constitution of the otherworldly and the divine. Society, tradition and gods are bypassed, a direct connection is established (see Brown 1978; Francis 1995) and social consensuses are destabilized. Tradition, culture and society – and the regulation of vast material and bodily flows that are composed by marriage, family, state and tradition – are radically interrupted. The absolutely corrupt body here ensures, through its radical negation and in its insistence on its absoluteness, a perfectly signified divinity that admits no ambiguity and no possibility for further re-signification. The absolute has been achieved – such is the power over things and people that these vexations enable and such is the gravity of this sin of 'perfectibility' in the eyes of church authorities.

The indifferent body

This sort of a radical retreat from the social could really only be achieved by configuring the body semiotically – as something that is abject, evil; anti-divine but sharing similar power. However, the traditional stoic

understanding of the materiality of the body characterizes the body as neutral and prosaic, and of society and tradition, and by no means linked to the divine (Aurelius in Francis 1995: 28–33). As such, the body can afford no special access. Subject as it is in its neutral fashion to requirements of tradition and society it cannot be detached and linked to the divine except if it were to be recast negatively in the radical ascetic tradition as 'evil' – by renouncing that which is 'evil' one asserts the divine; the neutral body is simply unavailable to achieve divinity.

It is worth here noting the outrage of pagan writers such as Lucian (Francis 1995: 67–81) directed at the ascetic Peregrinius and his eventual 'theatrical' self-immolation. As Francis suggests, individuals do not have the right to take their own lives for personal reasons, be they private or public spectacle; only tradition, society, religion and law are able to make that sovereign claim. Within Roman imperial pagan society radical asceticism and its particular materiality represented a significant threat requiring domestication. The stoic values associated with the asceticism of Marcus Aurelius and its particular materiality focused on the neutral prosaic body played a particular role in maintaining tradition and imperial power (Francis 1995: 21–52). Similarly, the Christian church, while establishing itself as an imperial faith, was inclined to domesticate ascetic narratives, such as Athanasius' 'Life of Anthony' and encourage the evolution of more socially regulated forms of monastic asceticism at the expense of earlier desert ascetic traditions (Brown 1978; Harpham 1987).

Mimesis and prototypes

Curiously for such a seemingly self-effacing understanding of materiality, visibility is an important element for its material and moral efficacy. This is the significant characteristic of the 'material turn' described by Miller and others at the time of the fourth century when the official acceptance of Christianity permitted the materialization of Christian beliefs, in monuments, hagiographies and visual culture (Miller 2009: 3–7). Despite all apparent calls for discretion, modesty and restraint, if it cannot be palpable and in particular visible then its moral efficacy is comprised. Striking the right balance is of course important and many ascetical traditions are extraordinarily preoccupied with this balance, with questions of 'ostentation' (see Francis 1995) and the appropriate terms of visibility of its ascetical practices.

Central to dualist and anti-materialist notions is the fundamental deception posed by this world of appearances – that what we see is not actually there; that it hides a deeper substratum of truth which can be discerned. Something that Locke would later define as the arbitrary

metaphysical substratum structuring social life (Locke 1975). Who can discern that truth becomes extraordinarily significant for the social exercise of power (see Taussig 1993 and Keane on revelatory practices). It is here that ascetic practices work to mortify the material world, and thereby work to discern that which is obscured and bring it into being.

The ascetic gesture (and by extension the immaterial gesture) is a profoundly visual and performative one that is mimetic and exemplary, and also 'enchanting' as a technology primarily of the self (Gell 1998), at an intimate level. It has much in common with the magical practices identified by Frazer of sympathy and contagion (Taussig 1993). These principles figure prominently, as we shall see in the material effects of these ascetic practices. Harpham (1987: xiv), quoting from a passage from the pseudo-Clement's 'The First Epistle Concerning Virginity', observes how the ascetic serves as a living prototype, who through his ascetic acts creates 'a beautiful example and pattern to believers', where '[i]ntriguingly, the task facing "believers" who would follow the "pattern" consists of the imitation of an original model whose distinction lay in a programmatic self-abuse' (Harpham 1987: xiv). In a sense a universalism is approached through these mimetic practices of ascetic ideals, which make an individual available to merge with a universal, however particular the individual circumstances. As Harpham (1987: xv) notes, 'discipline makes the body intelligible by indicating the presence of a principle of stability and immobility within the constantly changing physical being' that self-abuse reveals. It achieves a monumentality and fixity through the mimetic physical act that no conventional monumental materiality could achieve otherwise working within this nexus of multiple material registers. Thus, in a peculiar way, the 'vexations' of ascetic mortifications help secure a particular kind of monumentality that is counter-intuitive with respect to notions surrounding the monumental (see Meskell 2005; also Gillespie 2000 regarding immobility and monumentality in Mayan practices), what Miller (2009: 15) describes as 'ephemerally solid'.

Visibility and attachment: iconoclasm and haptic vision

The iconoclastic controversies in the eighth and ninth centuries elaborated the effects of the immaterial, particularly in relation to notions of haptic vision. The debates over representation between iconoclasts and iconophiles was one which focused on the most effective technical means for presencing the 'divine' and the implications of those technologies of presencing for the exercise of power in the Byzantine Empire (Miller 2009; Barber 2002; Mondzain 2005). Classical haptic notions emerging from within earlier Christian ascetic narratives assumed a particular

importance because of their pronounced sensuous qualities (Frank 2000; Miller 2009). Touch here provided the means for magical contagion to occur and thereby facilitate the transmission of divine powers. In particular the tradition of haptic vision characterizing the debates within Byzantine iconoclasm suggested a 'circuit' of visuality that physically instantiates the divine. Here the viewers, individual men and women, are active tactile viewers who through optical 'contact' complete a 'circuit' that presences the divine, creating a direct link with the prototype and thereby presencing it.

Visuality and materiality are often segregated in traditional post-Renaissance Western contexts. In antique contexts, however, visuality and materiality are very much linked in particular within the antique understandings of haptic vision. Georgia Frank (2000: 33–34) notes in regard to fourth- and fifth-century Christian pilgrims' narratives that 'to see was to be' (see also Miller 2009). Classical notions of vision as haptic understood vision as a superior form of touch: where particles of light emanating from what is seen are imagined to actually touch the viewer. Another metaphor deriving from the Aristotelian tradition was that of the intaglio seal (see Figure 2.4), whereby the image of what is viewed is impressed like a seal onto the viewer, deriving from Aristotelian notions of the imprint of vision on the soul 'as a seal-ring acts in stamping' (Frank 2000: 125). Both metaphors exploit an understanding of viewing as a form of physical touching with all the implications of 'contagion' that touch brings with it. Alternatively, the vision of the viewer could be seen to extend outwards and touch the object (Frank 2000: 123–24; and Miller 2009), facilitating an embodied connection. What is common to these diverse antique notions is the issue of touch either from the eye (as rays outwards) or towards the eye (as particles touching, or imprinting). As Frank (2000:131) notes, quoting a Coptic preacher: 'What the eye sees it appropriates'.[1] There is equally great power and danger in the haptic quality of seeing. Frank (2000: 131) observes that 'Most dangerous was visions' power to connect the viewer so intimately to its object that the adhesion could damage the soul beyond repair'. As she notes, citing the Bishop Nemesius of Emesa in his 'On the Nature of Man', both sight and touch encompassed the key properties of 'contact, participation, and initiative' (Frank 2000: 132), which merges in what she refers to as a 'tactile piety' centred on sight that represented a convergence of senses that to modern sensibilities are typically segregated, resulting in an entirely different corporeal 'onto-epistemology' (Barad 2007). Vision allowed one direct tactile contact with the divine in these encounters: 'it was a form of physical contact between the viewer and the object' (Frank 2000: 133), thus 'That haptic function allowed vision to reach into the past and sanctify the present' (Frank 2000: 133).

Frank observes how the development of physiognomy allowed pilgrims to see past, towards the light emanating from within. It was the body's decay through ascetic practices that allowed the light of divinity to shine through and touch the pilgrim and bring him or her closer to the divine (Frank 2000: 161). Decay and radiant divinity were inversely proportional to one another. Such an eye in these circumstances possessed penetrative powers. It could see past external surfaces and appearances and discover the secrets within, emerging more and more vibrantly with the decaying ascetic body (Frank 2000: 167–168). Similarly, following Miller (2009), such 'shine' serves to participate in two registers simultaneously to presence the divine within this circuit – worldly and otherworldly, material and immaterial – to produce the immaterial materially through this ambiguous simultaneity, at once ephemeral and material, whose inherent instability was able to prevent collapse into idolatry.

These decaying ascetics assumed a monumentality such as St. Simeon the Stylite. Here subject and object are merged into the hybrid column/human monument following in the spirit of classical athletes of sport to become an athlete of ascetic discipline. Frank (2000: 75) notes that, as living monuments, ascetic lives themselves fragmented and reassembled the details of their experiences, becoming 'living artefacts of a distant culture' invoking biblical lives and times. This often involved learning to be able, within this nexus of multiple registers, to 'see past' the human circumstances of these ascetic individuals, to see the 'angelic' shine emerging through and to recombine these details into a vision of ascetic life that combined the biblical past with the as-seen and as-experienced practices of the holy desert ascetic (Frank 2000: 77). Pilgrims' narratives can be seen as attempts to journey towards the bible in the past by literally journeying arduously into the desert to encounter these holy men and women (though mostly men). These were literally journeys into the past and towards the otherworldly and heavenly. Consequently, for all their ascetic repudiation of worldly connections, these narratives, working as they did within multiple material registers, scrupulously recorded details of dress, body and face, to make these attributes available in order to be able to 'see past' and distinguish and apprehend the holy and biblical.

These narratives betray a truism characteristic of most immaterial sensibilities that are particularly preoccupied with the physical, and the almost obsessive descriptions of these immaterial states. What might be seen as indifference towards the materiality of the world is profoundly preoccupied by it – it is a profound bodily engagement. The corruption and decay of the body served to point towards otherworldly connections these figures held. As Frank (2000: 169) notes, 'one gazed at external

features in order to gaze through them'. These narratives unite 'these face-to-face encounters in a setting where the desert and Paradise elide' (Frank 2000: 100). By beholding the figure and countenance of the desert ascetic (and by proxy through the narratives of such pilgrimages to desert ascetics) the vision establishes contact with that which is holy, and the holy in the figure of the desert ascetic returns the gaze, thereby facilitating 'a face-to-face encounter with a figure from the biblical past' (Frank 2000: 101). A visual circuit is established presencing the divine, not representing it but functioning as an index by 'seeing past', as an index is in many ways always materially or mimetically linked to its referent; as smoke is an index of fire, so is the ascetical appearance in all its narrative detail an index of the divine prototype or as 'shine'/'decay', following Miller (1994, 2009), serves to presence the divine within the base material simultaneously within two registers in this novel reworking of the sensorium.

As we shall see, Barber (2002) and Frank (2000) observe a unity in sensory tactile experience that combines the Eucharist, relics and later icons. These all, in varying degrees, exploit a continuity of haptic visual connections that these three distinct bodies of material culture (which Frank identifies as 'bread, bone and image'(Frank 2000: 174)) provide in facilitating contact with the divine. The haptic gaze in relation to 'bread, bone and image' presences the absent sacred, thereby becoming an extraordinarily powerful local technique for presencing absence. Within these early Christian understandings there is the sense and acknowledgement that 'bread, bone and image' (Frank 2000: 174) are in themselves inconsequential and immaterial (see also Barber regarding eighth- and ninth-century iconoclasts). Efficacy lay not in the objects themselves but in the eye of the beholder and the nexus that eye forms. But this eye is not passive, rather it is an eye that is able to 'touch' and make physical contact with the divine (see Eck 1998 on Dars´an). Early Christian fathers such as Jerome (Frank 2000: 176) acknowledge that a relic is nothing more than 'a bit of powder wrapped in a costly cloth'. It was, however, the haptic eye of the beholder that constituted the relics as the prophet 'as if they beheld a living prophet in their midst' (Jerome in Frank 2000: 176) – which Miller (2009: 6) suggests is an innovative reworking and re-education of the sensorium to produce Christian piety. A theory of haptic vision constituted the reality of the prophet's presence, visually reassembling form out of diverse elements whose ambiguity and instability (Miller 2009) was inherently productive of Christian divinity.

Gregory of Nyssa (in Frank 2000: 176) describes how the reverence for the martyr Theodore demonstrates how materially and visually this presencing of the otherworldly and divine works:

> Those who behold [these relics] embrace them as though the actual body, applying their senses, eyes, mouth and ears; then they pour forth tears for his piety and suffering, and bring forward their supplications to the martyr as though he were present and complete.

Similarly Frank (2000: 177) cites Paulinus of Nola on the subject of the fragment of the Cross:

> Let not your faith shrink because the eyes of the body behold evidence so small; let it look with the inner eye on the whole power of the cross in this tiny segment. Once you think that you behold the wood on which our Salvation, the Lord of majesty, was hanged with nails whilst the world trembled, you, too, must tremble, but you must also rejoice.

Vision here, as Frank observes, is able to reconstruct on the basis of a small fragment the entire body of the cross (much like contemporary DNA metaphors can reconstruct and presence an entire human body and subject). Haptic vision as touch not only touches but logically also assembles that which it touches – it is actively constitutive of the world. As such, haptic vision here is not passive. It serves to complete a circuit of divine power, through tactile contact and contagion, to presence the divine once the devout individual trains their 'inner eye' (Frank 2000: 177) to effect this circuit of divine presence. This goes counter to the notion of an agent-like quality of the artefact that affects the viewer, where, for Gell (1998: 117), the eye is decidedly passive and only really active and inherently tactile in eye-to-eye contacts (see also Eck 1998).

Work: asceticism, askesis and practice

Askesis, according to Francis (1995: xvii), 'is often difficult to translate, due primarily to its range of meaning. Initially found as an adjective describing an object as "having had much effort put into its making" as a noun it took on the meaning of "prolonged effort", or "training"'. The key point in these earlier definitions is the emphasis on practice, and technical mastery – the fact that *askesis* is about the sustained virtuosic working on the world. Such technical virtuosity can take on the form of the extreme control and mastery over materials that is demonstrated in both excessively elaborate and virtuosic technical achievements such as those discussed by Gell (1998) in reference to his notion of technological enchantment or such virtuosic works in another direction producing extreme asceticism. This evidence of intensive work and achievement is visually opposite but structurally equivalent in terms of mastery of means and the degree to which work on the material is done to either mortify or elaborate. Mortification or elaboration each serves to monumentalize in its own way, as we have seen in earlier

examples. In short, *askesis* represents a sustained and intensive kind of intervention in the material world; a particular kind of technological enchantment that suggests a specific kind of social efficacy and for being centred on the body and individualizing, upon which antique critics heaped scorn upon the 'uneducated' practitioners of asceticism (Francis 1995).

Ascetic excess

If we can consider *askesis*, then, as a technology, and as an enchanted technology of self (following Gell 1998), we can consider more carefully how antique critics (see Francis 1995) railed against spectacular manifestations of asceticism as excess, easily affecting the 'gullible' in the eyes of these critics: the young, ignorant and women. Such spectacular and technically astonishing performances on the part of ascetics were seen to be subversive of the very core of antique classical values. It is important to note as well how a domesticated asceticism – that is, an asceticism that serves the interests of state and tradition – is not 'excessive'; its parameters are more modest and contained within the traditions of antique society. It does not work, as Weber (1958: 154) observes of a later asceticism: 'to fashion it into a life in the world, but neither of nor for this world'. The problem lies in the visually excessive nature of the ascetic tradition focused on practices surrounding the body that is seen to be threatening, that is efficacious and able to provoke social emulation and action. As Francis (1995: 19) notes, the stoics abhorred all 'extremes of poverty and abstinence'. Excess was to be avoided at all cost, especially if it conflicted with established social duties (Francis 1995: 19). Stoical asceticism was a particularly private affair (Ginzburg 2002). As Francis suggests the association of such ascetics with charlatans, con-men and magi is not just intended to slander but in a sense also to reveal the performative nature of these activities – their ability to visually stun and awe their audiences in the very public (as opposed to private) contexts in which they take place. Through their various feats, ascetic virtuosity just being one – they reveal their human, constructed and non-divine nature. Thus the ascetical artefact and body is arguably most emphatically implicated in the regulation of social attachments and power. Peter Brown (1978: 81–85) explains this in reference to the rise of asceticism in Egypt in the third and fourth centuries AD in terms of changes in the rural economy. Ascetic practices appealed to individuals within the rural economy who strove to break away from the oppressive strictures of traditional pagan communal life. These individuals were also relatively prosperous (see Barber 2002; and also Lambert 1998 on middling aristocrats that populated later Cathar movements). Brown (1978: 11–12) emphasizes how asceticism questioned the '*locus* of the supernatural' and thereby challenged worldly

power, and how the ascetic practices of late antiquity refigured access to that power. The preoccupation with this power is the preoccupation with the forms of legitimate social efficacy which figures prominently in later iconoclastic controversies.

Iconoclasm

The iconoclastic controversies of the eighth and ninth centuries, like the ascetic activities of the fourth and fifth centuries AD (Frank 2000), were also concerned with the question of how to presence the divine, producing the immaterial and the material means to do so but with different means and within different political circumstances. Like the mortification of the ascetic body and its denial of the material world, the iconoclastic controversies vied to produce the immaterial in order to gird the incorrigible, the divinity of God through interventions within the material world. Charles Barber (2002: 17) reiterates that early Christian artefacts were for 'making present again' the absent and the immaterial divine – images and relics facilitated this presencing. The seventh-century AD writer Leontios explains how this later form of Christian ascetic materiality worked:

> Thus, O man, when Christians embrace crosses and icons, they do not bring reverence to the wood or the stones, to the gold or the perishable icon, or to the container of the relics, but through these offer glory, greeting and reverence to God, the creator of them and of all things.
>
> (quoted in Barber 2002: 18)

Furthermore, Leontios goes on to state: 'As long as the two planks of the cross are bound together, I venerate the figure for the sake of Christ, who was crucified thereon; but, after they are separated from each other, I throw them away and burn them' (quoted in Barber 2002: 18) (see Figure 2.3). The passages above illustrate how the apparently paradoxical relation to materiality that would deny its presence and efficacy merely refigures it, displaces its efficacy from the object itself and the problematic context of its atomized and local social use, and instead places its efficacy outside of material and local circumstances. By virtue of being outside but accessible by a regulated technique, supernatural power and state authority could be more easily regulated within this nexus. The immaterial is hereby produced through these interventions in order to secure the 'incorrigible' and make present the divine.

Dualisms

Durkheim claims in *The Elementary Forms of Religious Life* (2001) that asceticism is the fundamental backbone of all religion and culture

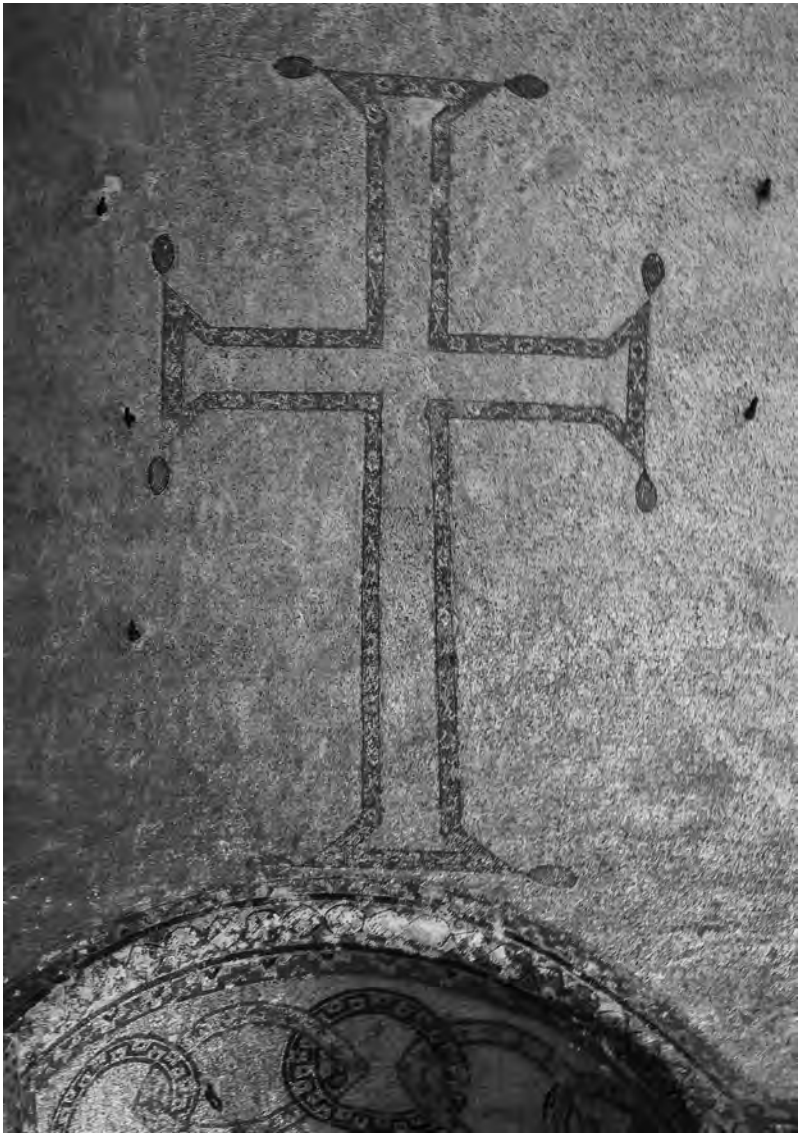

Figure 2.3 Byzantine Anicon/cross. Photo: Peter Webscott, https://wordscene.wordpress.com/.

(see discussion in Wimbush and Valantasis 1995: xxvi), while Harpham (1987: xi) makes the claim that it is the necessary gesture or imperative that makes culture intelligible as the so-called 'ms-dos of cultures'.

At once considered a universal, it also involves the regulation of very specific materialities and their attendant immaterialities (see also Miller 2005). What is the nature of this apparently universal gesture or imperative, materially? And what do these differences of materiality or immateriality suggest regarding the various creative ways in which people reject or more accurately mortify the material in order to make their way through their nonetheless physical, embodied and material lives on earth? At heart, this is the question of how people make attachments, forge relationships and subjectivities through their sensuous engagements (or 'intra-actions', to use Barad's term) within the material world and their moral regulation within given ethical systems.

It has been argued that the dualisms that ascetic practices describe and their various interrelations (as noted in Keane 2005; Viveiros de Castro 1998) are a general characteristic of human thought. This discussion here is just one of many that can be made in various other settings. The ascetic traditions examined here, however, are explicit settings where the material world and the social relations sustained therein are contentious and actively challenged (see also Bois and Krauss 1997). Here we are concerned with those moments of action where an intervention takes place to upset the settlement that has existed between the real and unreal, the visible and invisible, and in fact realign existing social settlements regarding the reality of things and forge another relation between two apparently incompatible realms. This is at times, but by no means always, a utopian intervention. It is argued here that these dualisms are necessarily productive, and not something to be overcome, as in the 'symmetrical' approaches championed by Bruno Latour and others in science and technology studies, which I would argue hold themselves hostages to fortune in the so-called 'science wars' (see Latour 1999; Makovicky 2006). Rather, these purposefully dualistic and 'asymmetrical' approaches to the material world are powerful, 'torsional' and radical operations within specific social contexts and are necessarily productive of specific historical circumstances and structures of social inequality as well as being a consequence of particular material effects and technical abilities in these examples derived from Western late antique traditions.

As we know earlier, the distinction between the material and the immaterial is a nonsense – but a very important one according to Thalberg and Rorty – that generates the productive dualisms needed for social life. These actions that produce such dualisms commonly come under the definition of ascetic practices, which along with their religious aspects go hand in hand with the development of the capitalist tradition; but they also embody less emphatically religious practices, such as thrift. Here too the work of thrift must be visible and physically palpable in

order for its moral message to be intelligible within a given system of ethics (see Miller 1998). In the excessive and highly material consumerist societies in which we find ourselves this seems in retrospect an odd twinning. But since Weber, the ascetic tendency is accepted as integral to the development of capitalism. As Weber writes at the time (1904–1905) of the first Russian revolution of 1905 about this asceticism: 'Now it strode into the market-place of life, slammed the door of the monastery behind it, and undertook to penetrate just that daily routine of life with its methodicalness, to fashion it into a life in the world, but neither of nor for this world' (Weber 1958: 154).

This paradoxical interstitiality, 'neither of nor for this world', lies at the heart of the ascetic object's 'torsional' and powerfully productive dualistic capacity, working within a nexus of multiple material registers, which attempts to at once participate and manipulate the world while actually denying it. As we shall see, this way of 'seeing' and manipulating the world is at the heart of the Christian ascetic understanding of materiality (see Miller 2009). And this is the operation which is at the heart of utopian endeavours that attempt to manipulate the world and the materials of the present and liken them to something that is not here in the present but in a deferred time or place (see Stafford 2001 on analogy). What are the political consequences of such interventions, and of course the role that the study of material culture itself as a form of vexation plays politically? In other words, what are the effects of these configurations within multiple and ambiguously related material registers, and what do these tensions, torques, vexations thus technically enable?

Weber (1958: 167) notes explicitly the anti-authoritarian aspect of the Puritan movement against church and state power, drawing parallels with the anti-authoritarianism of the labour movement at the time of his writing. The renunciation of the material world and its mortification have profound implications for the exertion of power. But as we can see in the antique traditions of stoicism in the classical Roman world, certain kinds of asceticism are profoundly implicated in the maintenance of worldly power and established forms of governance rather than being in opposition to them. They are in fact productive of these forms of governance just as they were in the establishment of capitalism and the subsequent rise of the liberal subject (see Bourdieu 1986; Cannell 2006; Foucault 1986; Rose 1998; Weber 1958).

Attachments

Ascetic discourses within the Christian tradition are fundamentally discussions about the proper way people should attach themselves to

other people and things and how these attachments are made and shape notions of ontology and the material world. In the nineteenth century this question was particularly prominent (and still is), with rising material prosperity and the creation of new classes and the social turmoils emerging on the heels of rising industrialism. The sudden surfeit of 'things' (see Hodder 2012 on entanglement) posed a new set of questions about people's appropriate relations or attachments to this expanding material universe. This problem was by no means limited to rising industrialism, however, but significantly complicated by it and arguably made qualitatively different. The sheer proliferation of things in industrialized economies means that this is a continuous problem, a problem under which the material and that diagnostic category of things, 'material culture' itself, were created (Buchli 2002a; though see Schlanger 2006a, b for an alternative critical genealogy) to come to terms with these problematic attachments. Similarly, it is Marx's own anxieties over the commodification of labour that had rendered the sensuous activity of the worker abstracted, thing-like, as exchange value that called into question the moral terms of social, economic and material life. Marx's labour theory of value was at heart an effort to reconfigure moral attachments emerging within industrialized capitalism. It has come to be part of the world, as Rouse suggests in relation to other sciences, part of the 'natural history' of the world in which we are formed – what Keane (2005) would refer to as the semiotic ideologies that shape our worldly attachments.

Keane (2005: 192) elaborates this point further in reference to the asymmetrical relation of people with things and the anxieties this relationship causes: 'Morality thus depends on the correct understanding of the materiality of things and the immateriality of persons, a balancing act that invites perpetual anxiety'. But I would like to argue that this anxiety is at heart creative and productive – a symptom of the agonistic production of new forms of personhood and being. This problematic relation of people with things is one of the key problematics within the field of material culture studies and anthropology in general. The question as to how attachments are formed, regulated and maintained goes to the very heart of what constitutes the social. This is not merely an abstract exercise but is central to the legitimacy of a given social or political order (see Keane 2005; Miller 2005a,b; Pietz 2002). This is particularly the case when considering how ascetic practices and the dualisms they produce help to circumscribe the incorrigible with the production of the immaterial.

Incorrigibility

Regulating and circumscribing the universal

Early Christian ascetic practices and the iconoclastic controversies were concerned with asserting the incorrigible nature of Christ's presence and divinity. The imperfectability of ascetic practices affirmed the incorrigible nature of the divine prototype, while the iconoclastic controversies strove to presence the divine as adequately as possible while assuring its incorrigible divinity particularly in the face of idolatrous claims.

The incorrigibility of divine presence could be produced within a particular understanding of the immaterial that images and icons produced within a specific register of haptic visuality. Thus the icon/image according to Barber is 'a means of extending the relic's touch through a tangible reiteration' (Barber 2002: 23). Both Frank (2000) and Barber employ a notion of looking through as opposed to looking at – asserting interiority over surface. Barber adopts this perspective from Leslie Brubaker's understanding of the status of the icon:

> the 'icon' was a devotional image that served as an intermediary between the viewer and the person represented . . . the sacred portrait is best understood as a transparent window that the viewer looks through (to the 'prototype', the actual person represented) rather than at: the gaze does not stop at the surface of the panel, but goes to the prototype.
>
> (cited in Barber 2002: 29)

This is a contemporary definition emerging from Byzantine texts at the end of the seventh century and codified by 800 (Barber 2002: 29). Thus an icon is 'both a depiction and a relic' (Barber 2002: 29), being both original and a copy – a copy in the sense that it is a copy of the original prototypical image, and a relic in the 'haptic' sense by which it has had 'contact' with the prototype. Barber further elaborates these qualities in relation to the surface of images as a 'site for exchange' where contact with the divine occurs – hence actual gifts of jewellery etc. which could be attached to the Theotokos (Barber 2002: 29–30, see also Humphrey and Laidlaw 1994). This is after all a site of exchange (or contagion) of divine power. Contra Benjamin on the reproduction of images, the haptic principle configures the object in an attenuated dimension. Thus it is both copy and original, in the sense that the haptic principle allows for an attenuated

direct continuation or literal attenuation of the prototype through time and space (such as the Maori meeting house in Gell 1998), achieving a remarkable presence overcoming place and time, and thereby enabling a universality and an eternal undifferentiated presence across time and place.

This notion of 'seeing through' as opposed to 'seeing at' suggests a highly engaged tactile and active, disaggregating engagement with the material/visual world. This is an engagement that is interpenetrative, where it is difficult to discern where one thing ends and another begins; these are not stable surfaces of engagement, but are highly porous, 'where the image itself becomes a site for exchange' (Barber 2002: 30) and hybrid entanglements made (see also Miller 2009). The materiality of the world is not so much unstable as actively 'cut' into and disaggregated – an 'agential cut' as opposed to a 'Cartesian cut', as Barad (2003: 333) suggests – in short 'torsional' and inherently social. This world is 'seen past' not so much to get under the surface of things but to get through them and engage in the circuit of divinity that early ascetic Christian material culture attempted to facilitate (Frank 2000). The material world does not so much get in the way or obscure, as show the way through (indexically). The mortification of the material that ascetic practices suggest is not one of 'iconoclastic' refusal, but more of a sort of 'vexation', to use Svetlana Alpers' (1983: 105) term, derived from Bacon, that allows us to see past and through. Patricia Cox Miller (2009) argues further that such practices enabled two registers to coexist ambiguously and unstably such that 'decay' could be seen as 'shine' simultaneously invoking two registers and two worlds – one otherworldly and divine, the other worldly and base – securing the incorrigibility of the immaterial materially without collapsing into idolatry. But one must bear in mind that seeing is a means of touching past and through and connecting directly with the divine. Thus iconic painting, according to Barber (2002: 34–35), can act as a secondary relic:

> An icon can be one of these secondary relics because painting, understood as a form of visual contact between copy and original, maintains a trace of its origins in the act of representation. In these terms, the copy is a reiteration, marked more by its proximity to its origins than by any difference.

Thus the icon is a re-articulation in visually haptic form of the original divine prototype whose transformation, bounded by specific forms, creates a bounded reiterative 'chain of identity' through tactile (visually haptic) contact (Barber 2002: 36–37).

However, the Byzantine iconoclastic controversies of the eighth and ninth centuries were not so much just a debate over the idolatrous nature of icons and the sin of idolatry. Rather, as Barber observes, it

was a question of technique, how better to presence (or rather establish contact with) the divine and anchor social relations in the present on earth. It was a question of how truthful an icon could be, how best the universally acknowledged imperfect material world could accommodate infinity (Barber 2002: 59). Icons and representations of divinity in themselves were not so much reprehensible; they simply did not do properly what they were intended to do. Iconodules, rather, further articulated the haptic relation both visually and physically with the divine. This idea, as Barber notes, was further challenged by iconoclasts who had argued that the material medium of the icon or the relic was limited. It was not up to the task of presencing the divine, being of non-divine, material and mundane origin (wood, paint, etc.). Rather the Iconoclastic Council of 754 (Barber 2002: 79) was able to argue for the Eucharist as being the most effective presencing of the divine because of 'Christ's declaration at the Last Supper that "this is my body" and "this is my blood"' (Barber 2002: 79). The painted image was never able to make that direct connection with the divinity of Christ, whereas the gospel record of this utterance on the part of Christ himself pointed to a more direct opportunity to presence the divine. Since Christ consecrated bread and wine as a representation of his flesh and blood, as Barber notes, Emperor Constantine V was able to define the Eucharist as an icon, and more effective presencing of the divine: 'The bread which we take is also an icon of his body, having fashioned his flesh so that it becomes a figure of his body' (Barber 2002: 80). If Christ himself had chosen these material forms as appropriate representations, then they are superior to all other material forms such as wood and paint which were not consecrated by Christ originally (Barber 2000 and see Engelke 2005; Ginzburg 2002; Pietz 2002; Vilaça 2005).

By this very same material association, Barber suggests, a sort of mimetic contact could occur. The Eucharist represented a more appropriate icon of Christ, while the cross could also assume a more effective material presencing of the divine. To speak of it as aniconic is perhaps misleading, as the Eucharist through mimetically afforded contact could more effectively presence Christ, so too could the cross through similar mimetic association and contact. As stated by Patriarch Nikephoros (in Barber 2002: 99): 'If then the flesh of Christ has sanctified the cross, when it was touched by his being stretched upon it, and through this he gave sanctification to us also, the cross is sanctified by him.' But these very same views, which would privilege the aniconic symbol of the cross when further extended in reference to the principle of visual haptic contagion, could be used to argue that since the icon reiterates the more venerable prototype figure of Christ himself (rather than the Passion indicated by the cross), then such representations of Christ

served as more useful and desirable icons, especially as they are more readily available and apprehendable: 'Because the Passion of the body of Christ is the cause of the figure of the cross, the body is at the origin of the figure, and the icon of the body of Christ, as the productive cause, is more worthy of honor than the figure of the cross' (Nikephoros quoted in Barber 2002: 101). Thus, as Barber observes, the iconoclast and iconodule debates would develop and their points be refined in terms of the efficacy of the material means with which the divine could be presenced, exploiting varying understandings of the material mode in which the reiterations and presencing of the divine could occur.

Alternatively, 'bread, bone and image' (Frank 2000: 174) (and crosses) could presence with varying degrees of efficacy the divine as historical and political contingencies required in the Byzantine iconoclast controversies. Aristotelian concepts of haptic visuality facilitated these arguments. As Barber observes in reference to Nikephoros,[2] who goes on further to argue for the efficacy of figurative icons:

> The icon has a relation to the archetype, and is the effect of a cause. Therefore, because of this it necessarily is and might be called a relative. A relative is said to be such as it is from its being of some other thing, and in the relation they are reciprocal . . . Likeness is an intermediate relation and mediates between the extremes, I mean the likeness and the one of whom it is a likeness, uniting and connecting by form, even though they differ by nature.
>
> (Nikephoros in Barber 2002: 116)

Thus haptic visuality is able to tie together incompatible materials, apparently crude materials such as wood, with the divine (the figure of Christ) through the mimetic work of the figural icon and more importantly the constitutive position of the observer. This is not unlike an aspect of Piercean thirdness that unifies signifier, signified, interpretant (the viewer), which functioned within an ambiguous nexus of multiple material registers. It is the collective of viewers, as we have seen before, that creates the circuit whereby the divine can be presenced. Furthermore, Nikephoros argues in relation to the workings of the icon: 'Making the absent present by manifesting the similarity and memory of the shape [the icon] maintains [with its archetype] an uninterrupted relation throughout its existence' (Nikephoros cited in Barber 2002: 119).

Here Barber notes that the indexical work of presencing absence to produce the immaterial is a form of directed absence, much like the indexical footprint directs us to the absent foot, or smoke the unseen fire etc., but which in all cases is physically linked to the produced immaterial referent, as visible smoke is physically linked to invisible fire etc., creating

an ambiguous nexus of multiple material registers. This is what Barber describes as the icon 'being-toward' (Barber 2002: 121), deriving from Nikephoros: 'that there is nothing of presence in the icon; it is a showing without representation or repetition' (Barber 2002: 121). In effect the icon is not icon-like in the Piercean sense but is in fact configured here as an index, but an index that is contagious. In effect this is like 'seeing past', as described by Frank – the material does not serve as presence in itself, but rather as a directed index, presencing through absence, like the intaglio metaphor of haptic vision (Frank 2000: 125 and Barber 2002: 117). The materiality of the intaglio image is suggestive of this nexus of ambiguous material registers, it is neither the recipient/base material: wax, clay, etc., nor the intaglio itself where the image is obscured and hard to visualize, in addition to being reversed (see Figure 2.4). It is only when the wax is struck, through the gesture/act of striking by an agent the intaglio on wax, that the image appears, somewhat miraculously, one might say. The image is neither the seal nor the wax but the interface that the embodied gesture produces, in a sense the lingering and extension of that gesture which the subsequent copying or refiguration of that gesture sustains and extends. One could say that the form appears immaterially, or rather ambiguously within multiple material registers, in the sense that it is not grounded in either material entity (wax or engraved stone) but as a consequence of the contact (touch) between the two through embodied action, thereby creating the image and presencing of that which is immaterial and absent (Christ, the Emperor, etc.). The intaglio metaphor exploits a similar interstitiality – neither one nor the other, ambiguous and instable, as Patricia Cox Miller (2009) suggests regarding ascetic 'decay' and 'shine'. So just as the authority of the emperor through the guarded uniqueness of the stamp ensures the value of the coin (see Schaffer 2002), or the authority of the sovereign's seal on the wax, so is the holiness of the icon assured by virtue of the holiness of the prototype which 'causes' the 'effect' of the image itself (Barber 2002: 121) as a form of distributed authority or personhood through the medium of the stamp (Gell 1998) which can only be produced within such an ambiguous nexus of material registers. The transfer of authority or divine grace, its deferral or 'being towards', is possible because of the notion of 'participation' identified by Barber (Barber 2002: 121). Barber cites John of Damascus (Barber 2002: 121): 'Material things are granted divine grace because of the name of the one depicted'. Furthermore: 'It is the same with material things which by themselves are not to be venerated, but if the one depicted is full of grace, they [the material things] become participants in grace in proportion to faith' (John of Damascus in Barber 2002: 121), thus invoking the Piercean notion of thirdness or an interpretant in order to establish the circuit of meaning with the faithful eye of the viewer and

thereby producing the immaterial and presencing the divine (see also Marks 1999 on haptic visuality, and Miller 2009 on the retraining of the sensorium). Barber additionally cites Theodore of Stoudios in a further elaboration of the efficacy of the icon in the way it presences the unseen: 'The imaginary is completed by becoming visible in the enacted from of an icon' (Barber 2002: 131), and concludes that in this iconodule defence of the figural icon, the icon functions not so much as a representation but as an 'event': 'it makes present those things that would otherwise exist only as ideas in the mind' (Barber 2002: 131–132). In this light we can consider Barad's point in relation to scientific phenomena. It is an event or phenomenon that is the 'intra-action', or gestural 'cut' (not unlike the intaglio 'strike') – a phenomenon as circuit which would appear as a phenomenon when all the correct elements are configured in relation to one another (or as a set of relations, see Vilaça 2005).

Thus we can see how such an 'event' is realized and the immaterial is materially produced within this ambiguous nexus of multiple material registers, as Barber (2002: 135) notes in reference to Patriarch Photios' homily of 867 at the unveiling of the apsidal mosaic of the Enthroned Theotokos in St. Sophia. Here the haptic visuality of the icon functions as the means by which the circuit of viewer, icon and divine prototype interact to presence the divine as discussed earlier:

> No less than these, but rather greater, is the power of sight. For surely whenever the thing seen is touched and caressed by the outpouring and emanation of the optical rays, the form of the thing seen is sent on to the mind, letting it be translated from there to the memory for the accumulation of a knowledge that is without any error.
>
> (Photios cited in Barber 2002: 136)

Figure 2.4 Intaglio seal. © Victoria and Albert Museum, London.

Conclusion

The mortifications of the flesh towards a near death-like state, as practised by some early Christian ascetics, and the material inconsequentiality of substance that produces and presences the Christian prototype through 'bread, bone and image' (Frank 2000: 174) both worked in what one might argue as competing media and forms to produce the immaterial, the presencing of the divine through extremely active interventions within the material world. This produced immateriality sustained and extended in a universalizing fashion the Christian *ecumene* at the expense of local traditions, laying the foundation of what we will know later as universal humanism (Cannell 2006).

The pursuit of immateriality is a particular means by which one gets things done – that is how one uses things at hand and intervenes to make things available within a given set of power relations and material registers (see also Bois and Krauss 1997). A key characteristic of what seems like the paradoxical denial of the empirically evident material world (and I might argue that this is only a paradox within the norms of empiricism) is that in order for people to get things done most effectively within certain material registers, and ensure power and social efficacy, is by securing them in a realm beyond unstable things, beyond that which is sensuously and empirically evident: into the realm of the ancestors, the divine, the shapes that cast their shadows in Plato's cave, or the noumenal of Kant where they exist incorrigibly and irrefutably (Rorty 1970). This production of the immaterial to secure the incorrigible, I might suggest, is motivated in part by the evident universality of death: that all things will die and decay, that in fact what seems to be material and self-evident is the melancholy knowledge that it will not be so, that it must die and decay. The paradox lies in the acknowledgement that the sensuous world is never really the world of brute physical and empirical fact. The fact is that the material world is by no means recalcitrant, it will decay and 'give up' – substance is not substantial. That is, its material effects are unstable, only socially sustained, as Locke (1975) would have it, in terms of normatively described material substances. It is in the nature of all things to decay. Such dualisms that the production of the immaterial produces shore up the inevitable instability of our lived worlds and sustain a certain continuity and stability within social relations at odds with the inevitable entropy and decay of the world. But, alternatively, if the evident decay of the world is used as an index of the timeless, divine and noumenal, such as could be seen in the exquisitely 'shining' decayed bodies of early Christian ascetics, then stability can be found there through the exploitation of the materially produced immaterial that secures the divine in this world and that. This is the 'cut', the gesture that begins to bring things

together and make them more widely available. It stabilizes, albeit contingently and precariously, and makes social and material life possible. This is the power of this obstinate asymmetrical dualism that lies at the heart of Thalberg's and Rorty's understandings of the immaterial and it is this power that is at the heart of Latour's 'science wars'. The question is what it means if, instead, the terms of social life are invested and secured in the evidently decaying and unstable materiality of lived existence. Is this then an alternative securing of our terms of social existence? Is this to be found in the inherently contingent, unstable, open-ended, endlessly unfolding terms of contiguous 'bundling' (Keane 2005) and associations that would ensure the more equitable terms of social life that radical democratic theorists and others envision and which our material circumstances would seem to require? And are these 'cuts' that Barad (2003: 827) holds us responsible to, those interventions 'in the world's becoming, to contest and rework what matters and what is excluded from mattering', as efficacious as to then be able to dispel the unseen and incorrigible 'demons' (Rorty 1970) for which we have developed such a taste?

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Notes

1 'No woman shall show herself off when going to church lest she become a snare and a stumbling block for those who see her. For what the eye seeth, it approprieth' (Pseudo-Shenoute, in Kuhn 1960: 55).

2 Consider here as well Virilio's understanding of Nikephoros on visuality and social cohesion in *The Vision Machine*: 'In the West, the death of God and the death of art are indisassociable; the zero degree of representation merely fulfilled the prophecy voiced a thousand years earlier by Nicephorus, Patriarch of Constantinople, during the quarrel with the iconoclasts: "If we remove the image, not only Christ but the whole universe disappears"' (Virilio 1994: 17).

3 The Christian ascetic object before the Reformation

> 14, He hewith him down cedars, and taketh the cypress and the oak, which he strengtheneth for himself among the trees of the forest: he planteth an ash, and the rain doth nourish it.
>
> 15, Then shall it be for a man to burn: for he will take thereof, and warm himself; yea he kindleth it, and baketh bread; yea, he maketh a god, and worshippeth it; he maketh it a graven image, and falleth down thereto.
>
> Isaiah 44

The late medieval

The Reformation in Europe and the various religious movements before and after it gave witness to extraordinarily novel and complex understandings of the immaterial which lie at the heart of the Western epistemological tradition to the present day, and of our conventional understandings within anthropology of the distinction been subjects and objects, persons and things, signs and signifiers. In particular, technical innovations such as the printing press and the camera obscura, and the so-called 'image explosion' identified by Camille (1989: 219) preceding the Reformation suggested radically different understandings of materiality. Historical accounts in this period offer a position of alterity from which to observe the creation of these novel immaterial registers and provide insights into the changing terms of propinquity, in particular with reference to the means by which the divine is presenced and contact therewith is facilitated. In particular, the problem of presence in terms of the nearness and at-handedness of the divine is refigured in terms of the emergence of the printing press, the camera obscura and the science of optics along with the general condition of the visual environment in terms of the sheer scale of images proliferating in comparison with times before. Propinquity, here, is challenged in terms of scale and also in terms

of new technologies and the problem of their new material registers and their means to effect proximity, and with them social and physical relations in novel material terms and scales.

Though a number of the examples here deal with iconoclastic episodes in the wake of the 'image explosion' (Camille 1989) and the rise of 'word' over 'images' in the wake of typography, the discussion is not concerned with iconoclasm per se – it being, as discussed earlier, merely a symptom of another issue: that of the status of objects and images and the relations they facilitate. Isaiah 44 quoted above, which is most often invoked by Reformation-era iconoclasts, can be seen as a question of asserting the particular register of a given object. Is it wood to be burned, or wood to be sculpted and venerated? The assertion of its character as mere wood is merely an assertion of one material register over another, and of course a recognition that multiple registers co-exist, as we saw earlier – as either firewood or divine presence (or, for that matter, ethnographic artefact, art work, souvenir, commodity, etc.). The injunctions of Isaiah anticipate the hybridity of our sensual apperception which Whitehead associates with Hume and the Western empirical tradition. Within these hybrid material registers are entirely different operations of presence by which social relations can be reckoned, and human attachments formed. What Latour and Weibel refer to as 'iconoclash' is really the conflict that arises when different registers are articulated, and contested within such hybrids. Mostly people go about their daily lives happily engaging with themselves and their material surroundings in different simultaneous registers without great conflict (when I yell at my computer in the vain expectation that it is some animate object with agency and consciousness, my inappropriate animistic beliefs would only be ironically observed by my neighbour and be nothing more serious or contentious). There is no particular need to assert one register over the other except in some moment of great conflict, personal, communal or otherwise. But what can be learned from these conflicts is what is more widely at stake in these material registers and how these registers shape social life and being. For within each material register (as well as in the various coincidences of material registers) a particular understanding of human attachments, sociality and the sensorium is sustained which all co-exist together. What we normally call material culture, that peculiar diagnostic 'thing',[1] is what I previously argued to be a particular material register of what I would like to call in another way corporeal, visual and physical co-presence – what in terms of positivism would be glossed as the empirical whose perceived materiality as such is an effect of multiple and/or conflicted commitments. This presencing in term of physical co-presence then makes the artefacts produced within material culture studies within anthropology and archaeology and other spheres available for wider social projects

within this vitally productive dualism, such as having a 'cultural heritage' comprised of 'artefacts' and 'monuments' that makes one 'visible' within the nation state and thereby facilitates a viable form of socially sustainable life (Rowlands 2002).

It is also worth noting that it is evident not only in the historical contexts being examined here but also ethnographically that what we might otherwise call empirical reality in the Euro-American rationalist tradition is often thought of as decidedly unreal (Miller 2005b; see also Viveiros de Castro 1998). What is in fact real, stable and enduring is beyond what is empirically and physically co-present: the realm of the ancestors, totemic connections, constitutive cosmologies, the presence of God, or the realization of communism. The body and the material world emerges and decays; it is unstable. What are stable, however, are the cosmological principles which structure the world (which Whitehead calls 'aims', and Rouse refers to as 'commitments'). To say something is present yet absent is to understand this absence in terms of physical and visual co-presence; these sorts of statements are only possible within a particular material-discursive register, to appropriate Barad's term. Ancestors, the dead, cosmology, God are most emphatically present but not apprehended in terms of the visual and physical co-presence that the term 'absent present' suggests. As a result, various complex technologies have been devised which are commonly glossed as 'ritual activity' to presence these entities in a given material register, which might be thought of as 'absent' or more crudely dismissed as 'superstition'.

Presence of course can be rendered in different material registers beyond the empirical and the visual and physically co-present. Presence can be spectral in terms of cosmology, it can be atmospheric, it can be sound, it can be light, temperature, etc. It can work in a number of different understandings of the senses and the hierarchies of knowledge we associate with different senses at different times, as Classen (1993), Howe (2005) and others have shown in their work on the anthropology of the senses, and the examples from late antiquity discussed earlier. These different registers are what I will continue to discuss here in reference to what I refer to here as propinquity.

As mentioned, presence/absence dichotomies make a certain assumption of material register and sensorial hierarchy: namely that it is visual, corporeal and physically present. Our understanding of empirical reality is usually in such terms. However, what we commonly gloss as presence can be seen as just one instance of propinquity or nearness which can be realized in other ways and in another nexus, not just in terms of corporeal, visual and physical co-presence.

The nearness and at-handness of presence might be thought of as just one particular instance of propinquity itself. Such propinquity can be

achieved in other ways, such as in terms of nearness of relation, as in kinship, nearness of analogy/association, nearness of time/imminence, or nearness in space and place – empirical presence is just one special instance and effect of a particular form of propinquity. I will consider here in these pre-Reformation contexts through a number of examples how propinquity is achieved in a number of different registers.

Barbara Maria Stafford's work on analogy develops certain aspects of propinquity. Stafford argues for the primarily visual work of analogy as a form of consciousness that mostly relies on optical qualities to facilitate a conciliation between apparently distinct and antagonistic entities towards a political ethics of interdependence rather than distinction. Analogy, especially visual analogy, facilitates a merging and interdependence, and 'stiches our mutable compoundable selves into a single self in periods of consciousness' (Stafford 2001: 179). Stafford's understanding of analogy invokes magical contagion and quasi-sexual attraction as means of binding together incompatible things and metamorphosing them into a 'third, new and unifying concept arises from two distinct and separate sensations' (Stafford 2001: 175). Analogy in Barbara Stafford's analysis functions as a mode of propinquity in which co-presence, nearness, is assembled through visual analogy akin to nearness in terms of kinship – kinship here being understood in terms of visual optical qualities such as form, colour, structure, etc., that serve as the medium for uniting, assembling, bringing together within a certain nearness and proximity two apparently irreconcilable elements. The analogic register works through optical qualities over a wide range of media, contexts and distances, both culturally and physically working to facilitate radical proximities that are at the heart of her ethics: where

> Each entity is forced to pay attention to the other, and in so doing, both diverge from their customary paths to venture onto territory which, although it appears foreign from each of their unique vantage points, nonetheless belongs to an interdependent existence.
>
> (Stafford 2001: 183)

Stafford's focus on visual innovations makes it worthwhile to see the changing terms of propinquity and materiality in relation to technologies of presencing as effected by scale and invention. In particular, the material and sensual means by which this is achieved, through colour, proximity, intensity, and destructive, constructive and reconstitutive acts. Within these differing and shifting settings new configurations of the sensorium are in evidence that regulate the material and the social relations forged therein and form a distinctive understanding of the self,

notably the dominant, paradoxical and immaterial incorporeal self of the Euro-American tradition.

What is often overlooked is that within such novel settings our bodily engagements with our various senses and the ways in which we have variously been constituted as sentient, knowledgeable beings are profoundly changed within the emergence of a new sensorium, as has been the assertion of a number of observers in the historical examples presented here (Classen and Howes 2006; Crary 1992; Ong 1967; Whitehead 1967). Anthropologists of the senses have long noted how contact between different groups and the introduction of new technologies radically reconfigure the human sensorium, creating new capacities while disabling others and creating new and at times disempowering sentient forms of knowledge. Such anthropologists speak of emergent cosmopolitan sensorial regimes (Edwards *et al.* 2006: 15). They speak of diverse, competing and shifting hierarchies of sensoria that gradually accumulate, shift and sediment, and in which we constitute ourselves and our lives within an increasingly extended and cosmopolitan sensorium. But, as Walter Ong (1967: 9) noted, 'The present sensorium is dismayingly mixed and we are hard pressed to understand it'. An example of this mix is the shift from the dominance of the more embodied aural–oral sensorium in the medieval West to the dominance of our more disembodied, ocularcentric visual one in the recent past.[2] The conflicts witnessed here over this period testify to the emergence of new and competing sensoria within which concerns over the presencing of the divine establish novel social forms, attachments and ontologies.

Producing the immaterial

Iconoclasms

The production of the immaterial in extreme contexts is often associated with iconoclastic actions and violence. However, what is often spoken of in terms of iconoclasm and 'iconoclash' (Latour and Weibel 2002) characterizing pre-Reformation and Reformation eras must be distinguished from iconoclastic violence. Gamboni's distinction between iconoclasm and vandalism is particularly relevant here.[3] Gamboni distinguishes between the term 'vandalism' – a neologism of the French Revolution and in particular the writings of the Abbé Grégoire – and 'iconoclasm' for the Byzantine controversies and the Reformation, iconoclasm itself having a doctrinaire quality while 'vandalism' is associated with the individual or the spontaneous mob (Gamboni 1997: 18). Iconoclastic violence might be considered here as a particular effect of propinquity where

divinity/power is believed to inhere within an artefact in which nearness is achieved in terms of physical and visual co-presence as with the traditional definition of an 'artefact' – a given 'power' or 'capacity' is said to reside within 'that', 'there'. However, as we shall see in this chapter and the next, such iconoclastic violence served to refigure the material in ways unexpected by theological concerns. As Aston (1988) and Christin (1994) both observe, sacred church property once rendered in a different material register in terms of base material forms – e.g. gold, wood, etc. in the manner of the iconoclastic comments of Isaiah 44, unleashed a chain of associations, that then made it available to other uses, partially motivated by social justice, partially motivated by need, and covetousness. A reduction to a contingent notion of base 'substance' such as gold or wood, which we can understand as arbitrary according to Locke and later Whitehead, provides the means through this objectification for such 'things' to be available for other productive and reproductive social projects (see Rio 2009 regarding the socially productive capacity of inert objectifications qua 'objects'). What is argued here is less a question of violence towards images and monuments but a reformulation of material register, making it available to other social ends and attachments. This is a conflict over the sensorial, and how best a given sensorium is able to facilitate the relation of things to people and how best to presence the divine, apprehend the world and thereby conceive and regulate human attachments within it.

For our purposes there are three notable novel historical elements in these settings before and after the Reformation. These are the oft remarked upon 'image explosion' (Camille 1989), the rise of new technologies, namely the printing press and innovations in optics. Within these settings the question of propinquity is engaged within reconfigured material registers inflected by the sheer abundances of material representations and their problematic materiality and increasing ubiquity and the power of new material registers and their attendant sensoria emerging within typography and optics.

Pre-Reformation thought and materiality

Within the late medieval period, before the Reformation, a number of philosophical innovations emerged, particularly with new translations of Aristotle and Plato in the occidental church which refigured understandings of the material and the production of the immaterial. Boulnois (2008) characterizes the period as a virtual struggle between the writings of Saints Augustine and Dionysius (the Areopagite) and their distinctive take on the new translations of ancient Greek philosophy where it

concerns the development of occidental church theology. Of particular relevance in this pre-typographic era is the status of the visual and its relation to writing, images and the oral/aural. Boulnois (2008: 444) describes this fictive debate thus: 'For St. Augustine, sensible images are too far removed from God to represent him adequately because nature presents only partial, shadowy traces of the divine'. Boulnois (2008: 444) remarks succinctly: 'In order to achieve truth, the absolute image, it is therefore necessary to go beyond all visible images and contemplate only the invisible image of the invisible: the soul'. As he notes, the key to this medieval schema is the understanding that material images are not comprehensible except with reference to 'mental images'. Thus, for the formation of 'mental images', both images and writing are similar and related technologies for facilitating such 'mental images'. However, for St. Augustine the ideal presencing and apprehension of the divine can only be under conditions of utter transparency, unmediated by images – that is, invisibly or, problematically for our purposes, immaterially. As Boulnois (2008: 446–47) comments, no material intermediary is up to the task: 'Any heavenly vision of God is an intellectual intuition without images'.

To paraphrase Boulnois, the position of St. Dionysius posits, contrary to St. Augustine, that 'God has no form whatsoever, not even an intelligible one' (Boulnois 2008: 447). Divinity only makes itself perceptible and intelligible through 'apparitions and theophanies' (Boulnois 2008: 447). The human encounter with God is never direct, as it is in St. Augustine, for whom the ideal manner of apprehension is an unmediated intellectual encounter in the spirit; it always requires an intermediary. But the intermediary veils and dissimulates. One's vision of God and apprehension of the divine 'is always a vision of dissemblance' (Boulnois 2008: 447).

In the context of this opposition of ideas, the status of writing becomes significant. As Boulnois notes with the rise of visual literacy in the twelfth century, it becomes possible to visualize the text (Boulnois 2008: 447). Thus the image is increasingly believed to be inferior to writing: 'Images are inferior to text precisely because the material image engenders vain mental images which distract us from the good ones – those kindled by the textual word' (Boulnois 2008: 447). With the rediscovery of Aristotle's writings, the possibility emerges that 'the soul never thinks without images' (Boulnois 2008: 448).

The focus on the spirit, however, introduces a shift in the nexus of propinquity by which the apprehension of the divine is experienced in new spatial terms, in terms of a proximity that is distinct from that described by Ong. As Ong (1967: 179) notes regarding propinquity in the medieval aural/oral tradition:

> The word itself is both interior and exterior: it is, as we have seen, a partial exteriorization of an interior seeking another interior. The primary physical medium is the word – sound – it is itself an exteriorization of a physical interior, setting up reverberations in other physical interiors.

Later, under the conditions represented by the camera obscura, this relationship of propinquity would radically change (see Figure 3.1). This is what Boulnois (2008) refers to as a change in 'lieu' (nexus, location or proximity) which focuses on the individual soul in contemplation of God and its fundamental infigurability. Along with this change of spatial configuration and proximity, the status of the self also changes, being constituted with increasing autonomy. The emphasis is on the individual soul (see also Ong 1967: 66–68) as the locus of divine apprehension, especially as the material world of images (both natural and artificial) are both inadequate towards its apprehension and presenscing and only apprehended directly through the soul (St. Augustine) or the material world of images (both natural and artificial), which are dissimulations but are the only means available to the soul for contemplation (St. Dionysius). The fulcrum of both positions is centred on the apprehending soul/intellect rather than on the aural, communal, intimate and highly localized setting of the sermon (Ong 1967). Hence, within such 'dismayingly mixed' sensoria (Ong 1967: 9), the material world can be subject to multiple and simultaneous registers. When there is a question of social conflict and the negotiation of power then of course those registers come into conflict, symptoms of which are the iconoclasms, the fetish and notions of irreducible materiality.

Boulnois further notes that this theology of optics was further reinforced by the technical development of artificial perspective (see Figure 3.2).

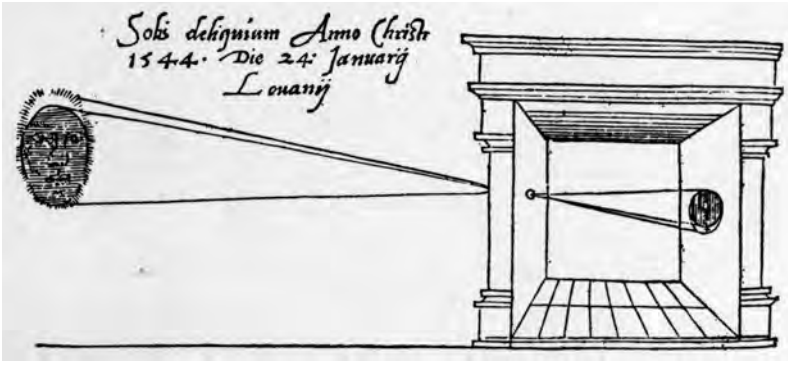

Figure 3.1 First published illustration of a camera obscura observing a solar eclipse in January 1544. © Private collection/Bridgeman Images.

The fourteenth-century mathematician Blaise of Parma is credited with a revision of Euclidian optics, positing that

> visible form is no longer simply produced by the object, it is reconstructed rationally, in proportion to distance; this distance is evaluated by reasoning and units of measurement established by the intellect of the observer. The real is no longer constructed only by external experience, but rather by a mental organization as well.
>
> (Boulnois 2008: 392)

The world is not apprehended analogically through exterior semblances and contrasts as we see in Foucault (1973) or in Barbara Maria Stafford (2001), but is apprehended internally from within the apprehending mind.

Furthermore, as Boulnois observes, in Brunelleschi's experiments with artificial perspective the position of the observing self becomes 'anonymous, invisible and incorporeal, without extension, and yet presupposed by the representation' (Boulnois 2008: 395). Thus, rather then creating forms according to eternal rules, 'imitation is supposed to become a *direct* imitation of nature, constructed according to optical laws – a "reproduction"' (Boulnois 2008: 394–395).

This removal of the self from the scene creates what Boulnois observes following the Jesuit founder Ignatio de Loyola in the wake of the Reformation: a 'composition de lieu' ('composition of place'). The idea of a 'composition de lieu' grows out of the new status accorded to mental images and to the apprehending self within the new optical theories (Boulnois 2008: 397), and with it a new understanding of the relation of the self in the apprehension of the divine and the production of the immaterial. Following Boulnois, just as the painter following the

Figure 3.2 Renaissance perspectival drawing. Dürer, 'Four Books on Measurement'. SLUB Dresden/Deutsche Fotothek. Photo: Saxony State Library.

rules of artificial perspective places the viewer in an invisible centre from which the world is apprehended, so too Loyola's 'Spiritual Exercises' places the Christian subject at the centre of an exercise analogous to that of artificial perspective. These exercises create a 'composition de lieu' that serves to place the Christian subject at the centre of a scene where the subject meditates on the figure of Christ, creating an interior mental image as a painter would create a physical image. Boulnois observes this image is of course interpreted by a 'director', echoing the authority and social structure of the university lecturer, although more dialogue is promoted with the director who assists in the formation of the interior vision. Ultimately it is the meditating subject who speaks and is the author of Loyola's 'Exercises' (Boulnois 2008: 405). Crucially, as Boulnois observes, 'Scripture is not enough. It must be supplemented not by exterior images, which are material, but by the internal ones imagined by the meditating subject' (Boulnois 2008: 406). Thus a very different nexus emerges, with a distinct understanding of propinquity, focused on the meditating subject who through these exercises is able to presence the divine in a distinct configuration, spatially, ontologically and materially.

Within this shift, following Boulnois and Ong, one can describe a profound shift in material register between verbal/aural and typographical culture. But, as Ong (1967: 8, 19) astutely notes following Whitehead's 'Modes of Thought', we mix registers such as those between speech and writing to create what Edwards *et al.* (2006: 15) would describe as a cosmopolitan sensorium. However, one should note more crucially that this is not so much a shift in register and sensorium or confusion following Whitehead but a simultaneity of such registers that can inhabit complex and highly dense spaces, a sort of impacted natural history of registers (or the presence of many 'worlds' as opposed to 'world views', according to Henare *et al.* 2007) or the ambiguous and multiple registers suggested by Miller (1994, 2009) in the early Christian period discussed earlier. Thus many can exist simultaneously. As Ong (1967: 9) notes, we do not abandon one wholesale for another; they all begin to occupy the same space and with different degrees of dominance in terms of one or the other over time. And of course each material register implies a particular understanding of the social and the nature of the self that can be made available in conflicting and apparently contradictory circumstances. One need not resolve one to the other as has been our tendency with much recent studies of material culture – but recognize its simultaneous availability (see Bille 2010; Henare *et al.* 2007; Parrott 2010).

Thus we can describe these changes in medieval philosophy and the impact of typography in terms of the status of objects, space and the self. If, following Boulnois, in the Augustinian understanding the

world of objects, natural and manmade, are unavailable to us as means of apprehending and presencing the divine as they are by nature materially unreliable (distorting and corruptible), then the only means of direct apprehension is through the direct contact of the spirit with the divine. The tradition of St. Dionysius, as Boulnois observes, emerging from Aristotelian writings, argues that Man can only think in images, even if these images are dissembling. Summarizing from Boulnois, the Augustinian tradition is highly individual and rather independent of socially mediated objects, either natural or man-made, relying on a pure and highly immaterial transparency between the divine and the apprehending spirit, that can only cautiously attempt to use 'mental images' rather than unreliable natural or manmade ones with which to apprehend the divine. On the other hand, as Boulnois suggests, the Aristotelian tradition of St. Dionysius permits dissimulating intermediaries, and a profound degree of wider social mediation that works within dissimulating objects. In addition, what is important here is the shift of understanding of space from an external one to an internal one where the space is literally the 'composition de lieu' (composition of space) that Boulnois (2008) describes in Loyola and Brunellschi, with its empty centre where the observer/self is inferred. The camera obscura, as we will discuss later, becomes a metaphor for mind and a model of social space in which knowledge of the world is presenced with a renewed focus on an increasingly invisible and incorporeal centre where the self resides and through this centre the world, natural and divine, is apprehended and the material terms by which the 'immaterial' spirit is forged.

With Ong (1967) we can see more clearly against this backdrop how the sensorium is reconfigured and with it the nature of the material in relation to the immaterial and the nature of human attachments. The shift from aural to typographic settings meant that the sensual means by which the divine was presenced was through the oral speaker, where the word spoken, mouthed bodily and emanating from within the body of the lecturer and heard by listeners formed a distinct community in place and space; thus the 'word' was literally presenced within the sensual hierarchy of exhaled voice and patient listener, creating a community and within that community the embodied localized presence of the divine. This highly local setting was also deeply intimate, as Ong suggests, not merely in terms of the proximity of individuals to one another but deeply intimate in a corporeal way as the word surged from within one trusted and charismatic entity to be incorporated by others aurally in this intimate setting, thereby presencing the divine in the most corporeal and intimate fashion (see Engelke 2007). Such localization, as we shall see, subsequently also represented a problem for the spread of heretical beliefs

within the church, such as the Cathar heresies, which needed an alternative non-local means by which to secure its universalizing *ecumene*.

The later 'Spiritual Exercises' by Loyola (Boulnois 2008) could not be more distinct corporeally, sensually and spatially in the terms by which the divine could be presenced. Though the exercises are ostensibly to be performed under the hierarchical supervision of a director, the director is mostly absent and certainly absent from the critical presencing of the divine. The setting is distinctly individual, within the confines of the study of the reader reliant solely upon the visual apprehension of the text and the production and presencing of divine images through the circuit of typographic text visually scanned to produce a 'mental image' of and internalized contact with the divine. Of course the distribution of the 'Spiritual Exercises' was wide because books could be carried over land or sea, helping to establish the training and global reach of the Jesuit order in the wake of the Reformation, for which the 'Exercises' and its particular ocularcentric sensorium served as an astonishingly effective means to encompass wider geographic space through this intensive, highly individualized inner space.[4] As Boulnois (2008) suggests that the 'Spiritual Exercises' and the camera obscura were analogues for one another for the way the absent could be presenced in exclusively visual terms, evacuating the body to the centre where it is rendered and produced as 'immaterial' through the peculiar social and spatial nexus which forges knowledge within both the camera obscura and the 'Spiritual Exercises'. But crucially this nexus which renders the spirit as absent and immaterial is only possible through this material and spatial nexus which produces the body as a solitary, disciplined sovereign spirit simultaneously occupying multiple registers, as we saw with the early Christian ascetic narratives (Miller 2009). Thus a novel nexus of body, sensorium and place emerges distinct from the pre-typographic one, within which a powerful and highly productive dualism appears, forging an immaterial spirit within whose nexus lies what we know eventually as the 'Cartesian subject'.

This model for the apprehending self in its immaterial relation to the world around it, available through a disembodied understanding of sight, prevailed throughout much of the West until the early nineteenth century (see Crary 1992). Both Ong and Rorty note the singular importance of the work of Locke well into the eighteenth century for promoting this model based on the camera obscura where the entire sensorium is reduced to disembodied and immaterial sight focused on the disembodied and sovereign subject (Ong 1967: 66–67), where mind, world and sight were mutually understood in terms of this frame: 'Psychology becomes for him [Locke] maneuvers in space, the mind a tidy container, and the conceptual world out of which words are spoken a construction

yard in which unit building blocks, shipped in from "outside" are physically assembled' (Ong 1967: 67).

Idols, idolatry and texts: the stability of the immaterial and the instability of the material

The nature of vision and the visual apprehension of the material is especially significant in these medieval accounts. Unlike the modern segregation of the senses, vision existed along a cognitive continuum from sight to imaginative thought inflected by an Aristotelian sense of haptic vision, where vision was a form of physical touch with all the implications of merging, and contagion therein. Vision as a mode of apprehension could be facilitated materially not only through two- and three-dimensional objects such as paintings and sculpture but also through text. This can be seen as an emerging competition between media, not unlike earlier Byzantine debates, as to which material media presences the divine and becomes the best means by which to establish worldly and otherworldly attachments. What is particularly significant within these debates is the paradoxical instability of the material as opposed to the stability of the immaterial when considering the effectiveness of three- and two-dimensional figures in relation to the perceived immaterial 'word' or text.

The instability of material things, in particular sculptures, was particularly problematic in considering the issue of idolatry. In discussions of the pre-Reformation era, the image of the collapsing idol figures prominently (Zeeman 2002). A key aspect of the problem of idolatry is the fact that idols and their worship is a relational one. One of the key issues associated with the designation of idols is of course that they are false, and that their assumed durability, magical qualities and sacred aspects are in fact not to be evinced as such at all – hence the constantly invoked tropes of the collapsing idol or the idol (Zeeman 2002) which is shown to be nothing more than ordinary and perishable materials, as in Isaiah 44 – its perishability and its instability being just what rhetorical descriptions of acts of iconoclasm were designed to demonstrate. In fact, rather than seeing these as acts of destruction, one should consider such iconoclastic acts as demonstrations of a native theory concerning the materiality of the objects involved, the metaphysical nature of substances in the world and a statement of their relational and social status. This is not so much the 'vandalism' of another, later historical era (see Gamboni 1997) but a performative and material exegesis on the nature of the material world and the relations facilitated therein. A very complex theology emerges in terms of how certain material registers are being reconfigured and the nature of human attachments within the world.

Explosion of images

The era before the Reformation is typically referred to as being characterized by an overabundance of two- and three-dimensional images (Camille 1989). Observers such as Camille have noted that earlier 'iconoclastic' movements before the Reformation were an attempt to stem this surfeit of images which diminished and cheapened divine power. Thus this concern with the overabundance of images was aimed at regulating sacral flows. That this was an attempt to challenge local understandings of value does not seem to be out of the question; however, these challenges were more than challenges regarding relative worth – they were a complete challenge to the system of value and divine flows that such two- and three-dimensional images/objects served to regulate.

Observers such as Zeeman note how the discourse surrounding the idol in the Middle Ages drew 'attention only to itself and to its own malleable materiality. In this sense, although it is highly material, it is "nothing". It exists in the mutable world only for itself and to be worshiped for itself' (Zeeman 2002: 44). Zeeman goes on to comment, referring to Fradenburg, that:

> The idol is also malleable. Just as the idol is made out of a stuff, it can be broken down into its elements again, or formed into something new: the idolators of medieval texts are always threatening them with just this. The pagan idol is concrete and even monumental, but also on the verge of mutation or dissolution. In fact, in the illustrations, idols are frequently in a state of collapse.
>
> (Zeeman 2002: 45)

As Zeeman notes, following Benjamin, the medieval idol is characterized by 'a mortifactory and broken multiplicity, one of inherited fragments' that is 'atomizing' (Zeeman 2002: 45) a multiplicity and material iridescence that worked in an opposing fashion to the 'shine' and 'decay' of the early Christian period discussed earlier but which nonetheless served operationally to similarly secure the incorrigible.

In the context of pre-Reformation iconoclasm in England, Stanbury (2002) notes how Lollard heretics could assert a particular understanding of materiality reminiscent of the injunctions of Isaiah 44 in a fourteenth-century account of the iconoclastic destruction of a sculpture of St. Katherine (one of the most popular saints in England and Europe at that time) in an abandoned chapel outside Leicester. She describes how two iconoclasts chopped up this sculpture made of wood to burn as fuel for cabbage stew.

> Aha . . . my dear chap, now God has sent us fuel to cook our cabbage and appease our hunger. This holy image will make a holy bonfire for us. By axe and fire she will undergo a new martyrdom, and perhaps through the cruelty of those new torments she will come at last to the kingdom of heaven.
>
> (quoted in Stanbury 2002: 131–132)

Lollards rejected the authority of the visual in favour of the textual, and Stanbury (2002: 135) describes an uneasiness at the time with the overproliferation of images and expensive statuary and stained glass windows in a time Stanbury describes as being 'in an increasing material and materialistic culture'. The choice of St. Katherine is deliberate and instructive in this account, as she was martyred for rejecting idolatry in the market of Alexandria.

Camille (2002: 153) notes how images were at once highly stable and 'represent the catastrophic materiality of the pagan idol, forever falling and shattering', sharing some key similarities but critically distinct from the 'ephemeral solidity' described by Miller (2009) for another place and era. The collapsing idol here can be understood as a regulation of the registers such a three-dimensional object can participate in. Not only were two- and three-dimensional images/objects unstable and collapsing when viewed as idols, especially in the Christian presence, but they were unstable by virtue of their promiscuity in terms of their proliferation. In the fourteenth century these were everywhere, not just in churches, but in the streets and domestic spaces: 'While this permeation of everyday life by the sacred can be seen as a kind of ecclesiastical colonization of social space, it risked, at the same time, a devaluation of the divine' (Camille 2002: 153; see also Camille 1989).

Iconoclasts emphasized the unstable quality of these images/objects in terms of decay, putrefaction and filth: 'a besmirched and dirty materiality, a fallen desire for the tactility of three dimensional objects that so easily decay' (Camille 2002: 164) and stressed their inherent ability to break down and be constituted in terms of base material 'substance'. These are themes echoed in the earlier account of the Lollard heresy surrounding St. Katherine's statue, which was found in a state of decay and putrefaction in an abandoned Leicester chapel, emphasizing its 'woodness' at the expense of its sacrality. These iconoclastic accounts serve not only to justify the destruction and removal of such objects but to offer a more general exegesis concerning the nature of materiality and social relations. This is a disquisition on multiple material registers with different social effects: the presencing of the divine, the abuses of idolatry, social justice and the redistribution of goods for the sustenance of life and society (Stanbury 2002).

Gender and idolatry

Women in particular were perceived to be more vulnerable to idolatry (Camille 2002: 165) as Camille notes, and, as such, 'The idolator and his idol make up the entire image of idolatry' (Camille 2002: 168), often being shown together in medieval manuscript images, emphasizing the relational aspect and the compound and imbricated nature of body and idol and the circuit of idolatrous vision and presence. Camille (1989), describes how women's purported innate susceptibility to idolatry was also manifest in women's greater impressionability, in accord with Aristotelian notions of memory and haptic vision. Camille (1989: 23–24) describes how images were believed to impress themselves on people's souls; women were discouraged from looking at animals lest their children come to resemble them. The thirteenth century was also the height of the Cathar heresies, where Cathars along with Muslims and Jews, despite their decidedly iconophobic cultures, were accused of being idolaters. Similarly, 'Colour was, along with three-dimensionality, one of the markers of dangerous idolatry' (Camille 2002: 169). Hence, under Lollard influence, English miniatures used less colour, were less naturalistic and more abstract than their continental counterparts (Camille 2002: 169).

Not only were women in the fourteenth century observed to be more susceptible to visual impressions as Camille notes, they themselves were often associated with idolatry, as in the fourteenth-century theological treatise of Robert Holcott (in Camille 1989: 298), who lectured at Cambridge and equated lust with idolatry. Camille (1989: 306–307) notes how descriptions of ideal femininity are often made with reference to materials used in sculptures: '"smooth as alabaster", "white as ivory", "clear as crystal"', rendering human flesh analogically in terms of 'substance' and wider availability. Tertullian's writings are implicated in these associations, as Camille (1989: 306) quotes him: 'By painting their faces, women were only making themselves more akin to images "made by human hands"'. Quoting further: '"Whatever is born is the work of God, whatever is plastered on is devil's work" concluded Tertullian's "On the apparel of women", equating excessive cosmetic adornment with artifice in much the same way as he did in his treatise "Against Idolatry"' (Camille 1989: 307). Camille (1989: 307) notes further that the thirteenth century saw the sensorium organized according to Aristotelian principles with 'the prioritization of sight as the noblest and most powerful of the senses'. And that 'The "idols of the mind", mental images or phantasmata, as Aristotle called them, were thought in the Middle Ages to be just as powerful as material ones precisely because they were likewise "man-made"' (Camille 1989: 307). Themes of immobility noted

earlier in relation to Christian ascetic narratives are seen during this time as a recurring with 'The idea of becoming dead and immobile as a statue' (Camille 1989: 324). Narcissus-like 'self-reflective idolatry' results in the self becoming idol-like '"une ymage mue" . . . "that neither shifts nor moves"', thus becoming an image and an idol (Camille 1989: 324; see also similar discussions in Rio 2009).

Proximity

As inherently indissoluble images, both two- and three-dimensional, text and 'mental image' were in effect one and the same – not separable as in our contemporary understandings but characterized more in terms of distance than inherent distinction. Thus along the continuity between interior and exterior idols was the problem of proximity. Nicholas Watson (2002 in Dimmick *et al.* 2002: 105), in discussing the writings of Walter Hilton,[5] describes the struggle with the inner self as the threat of the inner idol:

> describing the chief sin, pride, as idolatrous self-worship, and reiterat[ing] the need to humble the self under the awareness of sinfulness the text propounds. But this depiction of the carnal self as negation of being and goodness, an image of a something that is a nothing, is the furthest extension of this complex metaphor.

Watson (2002: 105) observes the problematic nature of proximity, where 'Hilton is much less aware of the positive connotations of the image than he is of the image's sinister proximity to the metaphoric idol which must be exposed, toppled, expunged, for the self to be made pure'. Watson notes how Hilton shared a fourteenth-century anxious hatred of images with his Lollard antagonists (Watson 2002: 110). He 'is careful to point out the inferiority of any spiritual exercise – whether it involves physical images, corporeal meditation, or the imaginative and sensual faculties – in any way associated with the body' (Watson 2002: 110). Where an image figured in a positive way in his writings it appeared abstract in keeping with what Boulnois (2008) would describe as the inherently Augustinian approach.

As the trope of collapsing idols indicates, the apparent stability of the idol is always under threat as its base material properties are invoked to refigure the material register in which the idol works and its wider availability. Camille (1989: 340–342) notes a parallel and important shift with the rise of the Renaissance: where in Dondi's writings, a sculptor,

'beholding the anonymous statues of Rome, still describes them as works of individual genius. This was another means of deconstructing the idol's status – to take all the emphasis from its function and effect and put it instead on the producer' – producing with it a shift in register and propinquity and a shift in ontology. Thus, as Camille (1989: 341–342) notes further, 'The cult of the artist's name – what Benjamin called "the fetish of the art market" – desacralizes the image and removes it from one problematic sign situation only to place it in another' (see also Boulnois 2008). The Renaissance saw a shift from revelation and the work of images to glorification of the individual artist. This shift of register would occur at many points with profound consequences. As Camille observes 'Dondi refers to them in his professional jargon not as gods but as "marble" or "reliefs". They are *exempla* not of moral states or sins, as the medieval mythographers had construed them, but of art itself' (Camille 1989: 341). Like Isaiah, a new register is posited for wider availability, moving the image out of the circuit of divine presence and into the merely material, as 'marble' etc., and the product of human, artistic intervention, and with it novel conditions for a novel ontology. With reference to the collections of the south by the fifteenth century as Camille notes, 'The image no longer refers to, no longer partakes of, the coded cultic statue of objects specially made to bridge the gap between man and God, but exists only for its own or for "art's sake"' (Camille 1989: 341). Thus anticipating the aestheticization of the image that the great reformers of the sixteenth century enabled (see Boulnois 2008 on Luther, Calvin, Zwingli and Karlstadt). Camille notes further: 'Its uniqueness is not numinous but serves to numerate its value as a rare commodity. This capitalizing or materializing of the image is a means both of denotating the feared power inherent in the three-dimensional and of denying its original function' (Camille 1989: 341; see also Gamboni 1997 and his discussion of rise of the museum and collecting in the wake of the French revolution). Camille (1989: 342) observes that, 'once the Renaissance ossified the gods in their "authentic shape" under the antiquarian eyes of the artist, all demons were exorcized', and this is when the cultural tastes between elites and masses begin to diverge (Camille 1989: 342).

However, Camille notes that the north of Europe was more in thrall to the medieval fear of images:

> The Church's dependence on images as vehicles of mass manipulation and the 'image explosion' of the fourteenth and fifteenth century ultimately caused violent reactions witnessed in Martin Luther's claim that images 'contrary to God's word' should be 'despised and destroyed'.
>
> (Camille 1989: 346)

Like Byzantine iconoclasts several centuries before, Reformation iconoclasts were responding to '"over production" in the holy' (Camille 1989: 347).

Boulnois (2008: 56) similarly notes how painting and writing are similar: as forms of inscription using lines, both are seen, in the Platonic schema, as less authoritative than the spoken word. As he observes in relation to medieval theories of images: 'The theory of the image is much more general' than the simple question of image-veneration would imply: 'memory, meditation, visualisation, narration, and veneration represent different ways of relating to the thing itself by way of the image . . . Medieval theories of representation, whether through signs, images, or concepts, form a system whose truth resides not in the image, but beyond it' – in short a system of reference with varying degrees of propinquity dependent on certain media and their respective efficacy (Boulnois 2008: 442–443). Which media, which means and in which ways such means were thought to work were at the heart of medieval and post-medieval debates about the nature of the image and the means by which the divine could be presenced. This is especially the case in the Reformation period, as we shall see later. But within these meditations about the image Boulnois (2008: 445) notes that the key issue was 'the idea that one could not comprehend material images without reference to mental images'. Boulnois here describes a 'circuit' similar to that discussed earlier, where 'the image is nothing but an assemblage of pigments on stone or wood' when it is considered on its own outside this 'circuit', but with the insertion of the devout observer, 'the observer allows the image to stand in for the original' (Boulnois 2008: 445) and thereby creates a circuit presencing the divine. Far from being 'false', as Boulnois notes (2008: 445) the image is in fact the means by which knowledge is possible (per Aristotle), though imperfectly, as Boulnois notes further that 'the image is a discourse, a network of intentions, that no single discourse can adequately express' (Boulnois 2008: 455).

But Camille notes Walter J. Ong's observations concerning the visual and the literary: 'As people "began to link visual perception to verbalization to a degree previously unknown" the iconoclastic impulse made them seek "some impossibly chaste medium of unadulterated and unidolatrous signification"' (Camille 1989: 347; see Ong 1967: 50). Camille notes, following Ong, 'It was not just the physical destruction of the hammer-happy iconoclasts that silenced and obliterated the remnants of medieval image-culture in northern Europe, but the new reproductive and reified power of the word' (Camille 1989: 347) – a power produced within typography which permitted the word to be withdrawn from existing medieval schema of inner natures and resemblances and exteriorized, becoming 'thing-like' (Ong 1967: 229), something to be

owned, producing radically distinct terms of access to the divine and a radically reworked sensorium and material register (Ong 1967: 229). That is, if the word is reified and promoted as the most perfect access, it is also transformed from a mostly aural/oral register to a highly visualized, exteriorized and objectified form for wider availability as Ong observes. This exteriorized form takes shape as a printed book (see also Engelke 2007). It can then occupy two registers simultaneously, as a thing in and of itself and as a referent. As Rouse (2002) observes in relation to anaphoric chains and Whitehead in relation to 'stubborn facts', the particular conflicts of register are not arbitrary, and are in fact a consequence of the specific materialities and registers at play. These are the anaphoric associations that are unleashed by biblical injunctions such as Isaiah 44 which rework the world in terms of 'substance'. The word, if in the form of wood pulp, leather and ink, and discrete object, is available to spontaneous, unaccountable, but by no means arbitrary forms of association within novel material registers, sensoria and configurations of propinquity; it can be shot, burned, buried, etc., as the anaphoric associations of the various forms taken by later Marian biblioclasms in England to be discussed (Cummings 2002). And, as Locke observes, these assertions of substance, though arbitrary, are pre-eminently social, a consequence of existing and contingent social commitments (following Rouse 2002).

Medieval ekphrastic traditions and idols of the mind

The contentious terrain occupied by images, words and the material is most eloquently attested to in medieval ekphrastic traditions (see Webb 2009 for a thorough discussion of ekphrasis). It is here that the traditional Euro-American ocularcentric sensorium runs aground, confronting a tradition that confounds this sensorium and its hierarchy and segregation of sensual engagements. Here vision, the material, touch and word are confounded, as 'the material' and 'the word' work in different registers to bring forth the world and make it nearer at hand, to create the 'network' or 'réseau' described by Boulnois (2008) – or what one might refer to as a nexus in Whitehead's terms. To reiterate, following Webb (2009), the ekphrastic rhetorical tradition, dating back to Homer and the Iliad, attempts through the spoken and then written word to 'bring to mind' (Webb 2009) a specific material artefact as in the shield of Achilles in Homer. However, the rhetorical devices are especially vivid, and unfold over narrative time, such that the mental image conjured up by the description is almost equal to the actual embodied visual and physical apprehension of the artefact. However, where the embodied apprehension of an artefact such as Achilles' shield is restricted in time, space, proximity and myth, rendering it inapprehensible in conventional

embodied terms, ekphrasis achieves a similar effect to empirical presence through rhetorical devices that transcend scales of time and geography. Two sensorial registers work in radically different ways to produce the same effect.

The notion of the internal idol can be understood in relation to the registers invoked by ekphrasis. An excellent illustration of how this works in the late medieval period can be found in Mario Klarer's discussion of Wernher der Gartenaere's *Helmbrecht*. This work of the late thirteenth century in Middle High German is an elaborate ekphrastic description of the protagonist's hat. The cap, and in particular the images represented, 'serve as a screen to project the workings of Helmbrecht's mind' (Klarer 1999: 35).

As Klarer (1999: 35) duly notes, understandings of the image privilege its mentalistic qualities in immaterial terms:

> This paradoxically entails a concretization of the image on a number of different levels. Although the privileged manifestation of the textual or pictorial is of a quasi-immaterial nature, this status can only be achieved via highly material objects. Ekphrases as literary descriptions of representational, material objects therefore hold an important position by touching on this paradox of material immateriality.

This apparent paradox can be understood more clearly in terms of propinquity, in which case this paradoxical quality that we often run aground on can be seen more as an 'artefact' or 'effect' of a shift in register in the terms by which propinquity is achieved.

Here Klarer (1999: 35) demonstrates in anticipation of mature Cartesian conceptions how medieval physiology could describe the mind in terms of inner and outer realms: 'outer senses transmit impressions to the inner senses which are associated with three cells (or ventricles) of the human brain', showing the influence of Platonic thought, notably Plato's *Timaeus* (Klarer 1999: 36). Within this distinctly spatialized understanding of the human senses, architectural space takes on particular significance as a metaphor for the mind: 'Buildings or Noah's Ark are frequently introduced as containers of memorabilia or knowledge per se' (Klarer 1999: 37), building on understanding in evidence in Byzantine ekphrastic traditions.

Furthermore, Klarer (1999: 37) emphasizes the shift in register and propinquity which posits an 'immaterial mind' within this material nexus: 'As these passages from diverse sources show, mental memory *imagines* are tightly linked to highly material objects, i.e. their immateriality can only be brought about by creating a virtual space populated with alleged material things or representations'. As Klarer (1999: 38) observes,

the representation is simultaneously an enactment of the nexus in which mind, subjectivity and materiality emerge; thus 'Iconography, the *biblia pauperum* and the practice of manuscript illumination are exterior signs of this medieval inclination to conflate word and image in its final representational mode as a physically incorporated entity'. This paradoxical situation must be understood in terms of these shifting material registers of propinquity.

Similarly, ekphrastic modes of writing (Webb 2009) might be considered with the emergence of the scientific method in the wake of the Reformation in the seventeenth century. Shapin notes, with particular reference to Boyle's experimentation at the Royal Society in London, the significance of witnessing (albeit severely limited in space and in number to gentlemen) and detailed empirical descriptions as a means of producing 'virtual witnesses' separated in time and space from the actual event as the means by which scientific facts were produced: 'Virtual witnessing involved producing in the reader's mind such an image of an experimental scene as obviated the necessity for either its direct witness or its replication' (Shapin 1996: 108).[6]

Dualism

Dualist heresies

Before the Reformation a number of heretical reformist movements occurred in various locations throughout the Christian world, challenging established ecclesiastical powers and the universality of the *ecumene*. These theological challenges were profoundly material in their enactment. Of these, probably the most significant in terms of an extreme understanding of the impact of dualist thought on concepts of immateriality are the long-standing Cathar heresies, that were reported by church authorities taking place between the twelfth and fourteenth centuries in the regions of southern Europe (Lambert 1998). These heresies as Lambert observes in his exhaustive account (1989), were characterized in official church accounts by a radical dualism that rendered the visible, palpable worlds as the product of the devil in direct opposition to the immaterial, divine and eternal realm of God's kingdom. This extreme dualism facilitated a particular radicalization of the material world. While it was seen that the visible and physical world was of demonic origin, this dualism structurally rendered the perceived world proportionally equal in terms of oppositional value to the realm of the divine which mortal men and women inhabit in anticipation of the city of God (Lambert 1998). This hierarchy, though profoundly nihilistic in the eyes of the

official church, had powerful effects and more critically circumvented the authority of institutional ecclesiastical authority by allowing individuals and communities to mediate directly with the divine through this organized and situated all-out rejection of the sensual world as fundamentally diabolical in nature. The state and church were no longer necessary to facilitate this mediation. On the contrary state and church institutions were directly implicated as corrupt manifestations and products of demonic origin along with the rest of the materially palpable and visible world. This reconfiguration of the material world with its attendant understanding of materiality was more than an abstract theological exercise but something that was materially and practically experienced in the decidedly intimate, material and embodied practices of everyday life in Cathar communities. The heresy had extreme importance for the political and religious life of Europe in the twelfth to fourteenth centuries (Lambert 1998: 1; see also Le Roy Ladurie 1980), especially through the heresies' emphasis on individual salvation. In these respects the prevailing late medieval scepticism of the visible world found its most extreme manifestation as being entirely demonic and dissimulating in nature.

It is from Durand of Huesca that we have probably the most reliable report on Cathar doctrine and materiality (Lambert 1998: 162). In this citation from Durand of Huesca of a learned Cathar's world view, the heavens are the creation of God and God has created a good Earth where the Cathars themselves would eventually dwell. It is Satan who had intervened in God's vision and created the 'visible' world filled with evil beings, amongst them 'earthly men'. God's world is a positive mirror image of the physical evil world and it is there that God's people, especially the Cathars, were eventually destined to be (Lambert 1998: 162–163). In Durand of Huesca it is observed as Lambert notes: 'If all the evil spirits and evil men and all things that are visible in this world are nothing, because they are without charity, therefore they were made without God' (cited in Lambert 1998: 163). Thus, if the material and visible world is 'nothing', it is not a worthy context for Christian attachments.

As Lambert observes, the eleventh and twelfth centuries were also a period of social change in the regions where Catharism took hold, with populations rising, and expanding trade and agricultural activity. As Lambert (1998: 10) notes, church life was changing along with disrupted social life. In reference to Catharism in Italy, Lambert argues that the rejection of the material world, as represented by Catharism, attracted burghers and impoverished nobility rather than the poorest of society (Lambert 1998: 85). It was the dynamism of social life in Italy that provided a means of making sense of these social changes and upheavals through Catharism (Lambert 1998: 86). Within this setting, local

theological interpretations could hold sway, facilitating the proliferation of what the Papacy recognized as Cathar heresies. This called for an impetus to rationalize theological teachings across the church as Lambert observes, in order to preserve its universality and the Christian *ecumene*.

Lambert's description of Cathar heretics in the Languedoc region of France gives a sense of how this world of extreme and demonic dualism could be inhabited. As the visual and palpable world was seen to be the product of Satan, Cathars, needless to say, developed an understanding of materiality based on retreat from and mortification of the material world to minimize the effects of these intractable diabolical circumstances in which they found themselves enmeshed. Socially, the community of Cathar heretics was focused on perfects and a system of houses (Lambert 1998: 146–147). As Cathars eschewed the worldly and material grandeur of the Catholic Church, their material circumstances, partly due to the impoverishment of marginality and persecution, further denied the material circumstances of their lives. They avoided meat and animal products except vegetable oils and fish, while adopting celibacy in general and suppressed the desires of the flesh in its many forms. Eschewing the ritual context of the Catholic Church and its monopoly on ritual activity, Cathar rituals could be performed anywhere, particularly in the home. The requirements of secrecy, but also the rejection of worldly goods and material practices, meant that the material support of ritual activity was unmarked and indistinguishable from the material settings and supports of daily life. Persecution, marginality and rejection of the diabolical world of matter all worked together to provide a setting where theology and material life were in accordance with one another and where this simultaneity of registers enabled Cathars to live openly yet invisibly.

As such, the profound rejection of the material world could only be apprehended in material terms and in terms of a particular sensorial disposition that rendered the sensual world as demonic in value. Lambert notes that the ascetical practices of the perfect in of itself drew uneducated and untrained minds to the Cathar practices and their cause, echoing earlier Christian ascetic traditions and the prevailing emphasis on aural sensorial culture. These religious leaders (perfects) led highly visible ascetic and work lives that suggested the morally efficacious nature of visible work. They did not retreat outwards as early Christian desert ascetics, but rather retreated within communities, into their midst, openly working as craftsmen in a wide range of trades directly within their communities and in continuous and visible contact with them. The constant asceticism and eating practices performed under highly scrutinized, intimate settings were evidence of sustained work on the world, even eventually in its ultimate rejection through the fasting of the body in the 'endura'.

Duvernoy (1963) rejects the prevailing nihilistic portrayal of Cathars. As he notes tersely, 'the perfects worked'. And Cathars worked not just in terms of the constant vigilance necessary for maintaining ascetic practices but in textile production, tailoring, trade, money exchange, medicine – as well as practising self-sufficiency, following New Testament injunctions to live by one's own hand. In short they were at once in social and economic harmony with those around them despite being in a fundamentally antagonistic relation to the 'diabolical' material world, which was to be endured and overcome through the initiation rituals of the 'consolamentum' which set individuals off as candidates to escape the chain of being and, amongst certain chosen, the 'endura' (making the escape from Satan and the material world), either administered through fasting or at the death bed, whose ritual permitted the soul to leave its material and 'demonic' shell.

The heightened physicality of these apparently paradoxically anti-material practices was due in part to the great pressures put on perfects in the company of their adherents to uphold virtuous ascetic practices, under their constant gaze, lest the 'consolamentum' they had administered to their adherents be compromised (Lambert 1998: 147, 193). It was a combination of their ascetic practices and vivid narratives, in contrast to the limited theological training of Catholic clergy, that could sway people to the Cathar cause (Lambert 1998: 81) and validate the sincerity and worth of the 'consolamentum'. The asceticism of perfects, the rejection of any specialized architectural forms, the use of existing domestic settings, and the overall professed independence from the world of the material only offered proof of their theological commitments as well as materially giving evidence and enabling them – at once sign and means. This theology was not merely represented but was in fact instantiated through these ascetic material practices. In the face of the highly monumental and materially wealthy Catholic Church, this asceticism provided the means and proof of their faith and served to sway individuals to their cause, through localized and otherwise materially indistinguishable and unremarkable example and virtuosity (Lambert 1998: 83).

As much as they rejected the material world as the product of Satan, they were actively involved in configuring it with the terms of their radical dualist beliefs. Cathar practices can be seen as being even more sensual and materially engaged than those of the official church, permeating every aspect of lived experience. Their struggle with the diabolical was a profoundly material, quotidian and sensual one in terms of its highly intimate, visual and embodied enactment in day-to-day life and ascetic practices. The idea of a church-like setting as used by the Catholic Church was rejected outright – the great monumental works and wealth

of the Catholic Church were material proof of its satanic connections and its images were evidence of idolatry. Rituals thus required no special spaces or specialized ritual artefacts such as images or shrines (Lambert 1998: 147). The most natural space for Cathar rituals was the ordinary home or workshop (Lambert 1998: 147). As opposed to other ascetic orders and earlier ascetic traditions, Cathars only occupied inaccessible areas and locations to pursue their faith under the pressure and persecution of the church. The other advantage of Cathar material settings is that they could be assembled and disassembled as easily as possible; thus they were highly mobile, could appear almost anywhere and disappear and move on as quickly as possible, formed and re-formed through the continuous and dispersed support of its members. More significantly, the Cathar ascetic disposition was enabled by a material register that allowed the material to simply exist and be at once rejected through a studied ascetic indifference that functioned in multiple registers. Inquisitors were hard pressed to rout out a heresy that for the most part blended in and did not make available any 'objects' with which to distinguish itself. It was the virtuous ascetic life that drew people to Catharism rather than specifics of church doctrine (Lambert 1998: 158). Finding such heretics that blended in, did not distinguish themselves in any way materially and otherwise led what for the most part seemed virtuous ascetic lives made them very hard in effect to rout out. Leading questions from inquisitors such as those noted by Lambert in Languedoc – 'Did you hear about their errors about the creation of visible things?' (Lambert 1998: 159) – could only attempt to penetrate the otherwise materially unremarkable and modest ascetic lives whose ordinariness functioned in a material register entirely at odds with but subtly indistinct from established church doctrine.

It was at the Fourth Lateran Council (November 1215) as Lambert notes (1998: 108), that the definitions of transubstantiation were fixed and the necessity of baptism established unequivocally along with the necessity of marriage. These resolutions were all directed to counter the Cathar heresy and their rejection of the flesh, sexual intercourse and of the material world in general. The doctrines of figures such as St. Francis of Assisi were specifically geared to counter Cathar heresy. The natural world and the world of God's creatures and creations was to be actively embraced (Lambert 1998: 172–173); worldly attachments under the regulation of church authorities were to be encouraged.

As Lambert observes within Italy the rise of orders such as the Franciscans and of confraternities offered alternatives to Catharism within church hierarchies. Confraternities in particular allowed lay people to pursue a moderately ascetic life within the secular world under the

authority of the church, where revelation could be evinced in the activities of the secular world (Lambert 1998: 177). As Lambert (1998: 177) notes: 'Flight from the world was becoming an internal matter, no longer seen simply as a renunciation of carnal life in an exterior sense'. Within Cathar communities a distinctive form of propinquity emerged based on the charismatic teachings and highly visible and intimate ascetic actions within the material world, regulating one's relation to the material world and to one another in a subtle and imperceptible register (much to the frustration of inquisitors), without recourse to objectifications that made them more widely available, but that simultaneously existed unremarkably within the world and rejected it (and the visible church) outright.

The radical dualism of the Cathar heresy reconfigured worldly attachments by the extreme designation of the visible and material world as demonic. On the eve of the Reformation the regulation of attachments to the material world and the social relations they enabled were focused on debates within the church on the question of idols and idolatry as a means of regulating these attachments. At stake was the relation of the profane and the divine and the particular means by which this might be realized materially, as in earlier Byzantine debates. This question of idolatry was to be further complicated by the proliferation of printed materials and the rise of the printing press, creating a new material dimension according to which the divine might be presenced and apprehended and worldly and social attachments regulated.

Conclusion

The period leading up to the Reformation reveals the profound way in which the material and the immaterial were reconfigured in relation to one another in a number of Christian traditions. The pre-typographic era that Ong (1967) identifies produced a very particular spatialized understanding of presence – intimate, body to body, reliant upon charisma and authority to produce locally the presence of the divine. The controversies regarding the material in the writings of St. Dionysius and St. Augustine revealed profound ambivalences towards the material (Boulnois 2008). The so-called explosion of images (Camille 1989) and the ambivalences in place regarding the nature of the material and its ability to presence the divine enabled a setting wherein new technologies such as typography and the camera obscura could begin to rework the problematic nature of the material. Both typography and the camera obscura could produce a radically new understanding of the immaterial to secure new ontologies within new sensoria, which at once were able to produce the Christian *ecumene* on a greater scale within an expanding Europe and its colonies

and produce the individualized subject we would subsequently know as Cartesian. The sensorial shift from a verbal\aural culture to a typographical one produced the immaterial word – an immaterial word, however, fashioned within an exteriorizing semiotic that denied the materiality of books and typography itself through its detachability, its ability to circulate uniformly as the word, detached from context of reading, use and material conditions, to be the word, anywhere and at any time regardless of material circumstances (Ong 1967). However, within this pre-Reformation tradition the conventional distinction between word, image and thing that is familiar to contemporary understandings did not apply. In the preceding discussion the pre-Reformation world made little functional distinction between word, image and thing: all were means by which presence could be facilitated and existed along a spectrum of inner idolatry to exterior idols, encompassing mental images, visual culture and material culture more widely. Interior idols and exterior idols were distinguished by degree, not in kind or medium – they were all idols, whether as immaterial thought, or stone statue or the panoply of material culture, the wider adiaphora of the liturgy, including the space and architecture of churches and religious establishments which served to presence the divine. The ekphrastic tradition which presenced the physically and empirically absent (see Webb 2009) through a haptic understanding of images both external and internal, saw internal and external images as the same thing, differing only in terms of efficacy. With the Reformation, new configurations within these new technologies emerged to refigure in innovative ways the relation between the material and the immaterial, particularly through the competing understandings of the 'physics' of the Eucharist (Wandel 2006) amongst reformers and the ensuing iconoclasms by the wider populace that reworked understandings of the material and substance in the spirit of Isaiah 44 in radically new ways to effect religious and social reform.

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Notes

1 Whitehead asserts that such abstractions, which we might call 'material culture', like other sense data and abstractions are only invoked in particular circumstances. As he notes, we don't immediately experience these 'things' as 'material culture'

except in moments of a certain kind of crisis or reflection 'When such sense-data appear we send for a doctor' (Whitehead 1958: 156), or for our purposes another kind of doctor – an anthropologist or archaeologist.

2 As Ong (1967: 179) notes, and as can be related to propinquity in the medieval aural/oral tradition: 'The word itself is both interior and exterior: it is, as we have seen, a partial exteriorization of an interior seeking another interior. The primary physical medium is the word – sound – it is itself an exteriorization of a physical interior, setting up reverberations in other physical interiors'. Later, under the conditions represented by the camera obscura, this relationship of propinquity would radically change.

3 Though also consider David Freedberg's discussion of consecration, making inanimate matter into an animate deity (1989: 82–98). Consecration can be seen here as the opposite of iconoclasm – the flip side of the same coin – showing the idol to be inanimate matter, making inanimate matter into an animate idol. Both operations in a given social field refigure the material to assert new relations of propinquity.

4 The tactics of the field survey and the 'spiritual exercises' seem appositely resonant in light of the fact that Loyola himself was a former military man and the order he established was characterized by an almost military-like discipline in the face of the Reformation.

5 Hilton was a canon lawyer and secular priest who died in 1396.

6 Shapin argues that the reading of the 'Book of Nature' through reformed natural history could purge faith of idolatry (Shapin 1996: 138). Shapin also discusses Bacon and his belief in method as an affair of state and not ecclesiastical knowledge, which was instrumental to securing power over beliefs, especially with rising nascent states and in the wake of the conflicts of the Reformation (Shapin 1996: 129–130). Method was a means of 'organising *collective* labour. The reform of natural philosophy was to be accomplished by making the method-machine a tool of state bureaucracy' (Shapin 1996: 130). Hence, as Shapin observes, science becomes a gentlemanly concern and concern for civil order with the establishment of scientific societies in London, Paris and Florence all under state – princely rather than ecclesiastical – patronage and as a counter to university-based scholastic disputation, which was based on authority, rhetoric and charisma rather than empirical demonstration.

4 The Reformation and the problem of visibility and proximity

Camille noted earlier that it was not just the so-called 'hammer-happy iconoclasts' that brought down the images of the medieval word but the power of the word (Camille 1989: 347). This was in great part due to the particular power of typography in face of the visual and material. Typography was at the heart of the transition from the aural/oral-centred cultures of the medieval period to the ocularcentric cultures of the Renaissance and Reformation. In particular the Reformation addressed in very explicit and violent terms the question of material register and presencing and the terms by which propinquity in religious and social life could be achieved. However, these were the unanticipated consequences deriving from pre-existing controversies over material images, both external in two and three dimensions and internal in terms of immaterial mental images. Such images were fundamentally indistinguishable from one another despite differences in media, except in terms of how adequately they were perceived to apprehend the divine. Typography and the exteriorizing of the word reconfigured this medieval understanding into radically new ones of self, material register and propinquity described by Ong (1967) and also by Boulnois (2008) in reference to the counter-Reformation 'Spiritual Exercises' of Loyola. Here the differences over the effects of images, immaterial and material in two and three dimensions between the great protestant reformers, Karlstadt, Zwingli, Luther and Calvin, illustrate how respective notions of propinquity function in terms of the way the divine is presenced. These differences reveal the specific material registers in which propinquity is achieved, and the terms within which social relations are formed. In particular we can see in the different proposals for a new 'physics' of the Eucharist (Wandel 2006) how the question of substance was handled. The significance of the substance of the material in relation to the immaterial divine described different ways in which these re-workings of substance could facilitate new social means of being such as those evinced in the various forms of iconoclasm, both ordered and spontaneous, which took place. Similarly, as these new 'physics' (Wandel 2006) helped rework understandings of the material

and immaterial, new technologies such as the camera obscura, the telescope, the microscope and of course typography helped refigure understandings of what constitutes the material and its substances and the kinds of human engagements such re-figurations then enabled.

Producing the immaterial

Karlstadt

The great reformer Karlstadt fully condoned outright iconoclasm, the destruction of images and their proscription and rejected the Western tradition of justifying images in churches and Gregory the Great's proposition for their use as mnemonic aids. As Cummings observes apropos Karlstadt, 'The world of the spirit was by definition immaterial and invisible, beyond the reach of images' (2002: 187). As Cummings cites Karlstadt in his 1522 treatise against images: 'but the Word of God is spiritual / and alone is of use to the faithful' (Cummings 2002: 187). Karlstadt (the future rector of Basel University and leader of the Wittenberg movement of 1521), along with the Augustinian Zwingli, led the most radical iconoclastic demonstrations, and it was there in Basel that the experience of iconoclasm was particularly intense (Aston 1988). Karlstadt made full use of the prohibition against images in Isaiah 44 (Michalski 1993: 187–188). Karlstadt argued for a specific dyad between heart and eye according to Michalski (1993: 184): 'out of the eye, out of the heart (ab Auge, ab Herz)'. This dyad facilitated a particular understanding of material register and the terms of propinquity which asserted the absolute immateriality of the apprehension of the divine and the absolute corruptibility of material form and its ability to damage the soul. Physical co-presence with both three- and two-dimensional images literally inhibited and corrupted the apprehension of the divine. Luther, on the other hand, was highly critical of the riotous violence that was unleashed. Luther criticized Karlstadt, arguing that his preoccupation with material idols was superficial, and rejected this 'eye–heart' dyad, asserting instead that Karlstadt, according to Michalski (1993: 184), removed 'only the visible idols and leaving the more dangerous internal idols in the heart'. This echoed a more deep-seated association of idolatry as inhering not so much in idols themselves but as in a state of being in a particular relation to the world (Michalski 1993: 38) – destroying them simply missed the point concerning the general problem of idolatry at the high cost of civil disorder while reprising late medieval preoccupations with 'internal idols'. Idolatry simply existed in many material forms from the immaterial and internal to the monumentally three-dimensional – they were inseparable from one another.

Karlstadt's understanding of the 'physics' of the Eucharist as Wandel observes and the iconoclastic violence which took place in Basel is instructive here. Karlstadt envisioned the 'physics' of the Eucharist mainly in 'spiritual' terms unconnected physically in any way – the Eucharist could not facilitate the forgiveness of sins, Christ is not physically present and the Eucharist does not serve as a 'sign' of God (Wandel 2006: 70–71). However, the iconoclasms that took place in Basel reputedly under the influence of Karlstadt's writings understood presence in a distinctly different fashion. The reports of the aftermath of the violent iconoclasm indicate a different 'physics' at play. Conventional artefacts (chalices, drapes, etc.) were not distinguished from images – all were treated the same. Everything was chopped up into little bits, from screens, to stone and wooden sculptures, except, as Wandel (1994: 170) notes in reference to contemporary sources, 'Only those things that were made of gold or silver, or other small items, were untouched and preserved. "for no one sought to take anything, only to smash, nor did anyone dare to put on anything that he might wear"'. People came to smash not to steal, as in other places as Wandel notes; hence the necessity of rendering things into small pieces, essentially useless in conventional terms and not available for other purposes (see also Taussig 1993: 96 on Darwin's observations of Fuegians ripping up European shirts to produce equality). The iconoclasts were not an unruly mob but a large group of pious citizens attempting to settle matters as Wandel observes. These activities took place on the eve of the Basel Fasnacht or Carneval – the time to say goodbye to the flesh before the austerities of Lent. Wandel argues further that the iconoclasms of Basel focused on the question of the 'flesh' as the body of material culture which embodied the 'flesh' of Christ. The Basel iconoclasts of 1529 refigured this body of material culture which embodied the 'flesh' of Christ into new registers as Wandel observes (1994: 187–188). Elsewhere, registers emphasizing these artefacts' 'primary' substances – wood, stone, precious metal, etc. as Wandel notes – were reconfigured into appropriate scales to serve human needs, such as the reworking of wood in Zurich, where iconoclasts destroyed wooden crucifixes to provide needed wood for the poor, or to be rendered useless, as in Basel, after they had been handed over to the lay poor for their own immediate uses (Wandel 1994: 188). Reconfigured through iconoclastic acts of destruction, these substances in the appropriate scale could be made available to serve the needs of the community, particularly the poor: 'they smashed the "idols" into matter, the stuff of which mundane things were made. They demolished them all, never distinguishing among them, never according the images individuality, differing content or meaning' (Wandel 1994: 187). In short, they performed the empiricism of Isaiah which reduced idols to their basic socially useful substances of wood, to be

transformed into kindling to bake bread and other useful purposes (or not in the case of Basel) – breaking down these artefacts into 'substances'. But these 'substances' had a moral dimension and agency in that they afforded a new basis with which to achieve social justice. This breaking down into empirical categories that exist below the surface and unify disparate things into wood under what one might call in Piercean terms the qualisign of woodness is, as Locke describes, an essentially arbitrary act, but one that was ideologically motivated to reconfigure the world against an essentially arbitrary substratum (here wood or any other 'substance') thereby providing an incorrigible underpinning by recourse to the produced fundamental materiality (the direct opposite of the immaterial) of material 'substance'. The subsequent rise of the empirical sciences founded on sight and the discernment of fundamental underlying principles was hastened by microscopy. New optical inventions which enabled seeing very close and very far served to confound the giveness of the world and produce an empiricism which undermined these given categories, as we shall see at the end of this chapter.

Zwingli

As regards images, Zwingli was more of pragmatist than Karlstadt. He argued for their removal from churches back to the secular realm, back to their donors and back into private homes (Boulnois 2008: 419). Events in Zurich, where Zwingli had influence, went more smoothly than in Basel. In July of 1524 all images in Zurich were removed over a period of two weeks without any destruction, rendering the churches of Zurich 'beautifully white' (Michalski 1993: 54). Following a series of acts adapted by the Council of Zurich in 1524, religious images were returned to their donors, and people were prohibited from making images to be donated to churches. But if a community wanted to keep its images as Boulnois notes (and see Michalski), it was only prohibited from burning any candles in front of them or burning any incense, the only exception being the distinctly aniconic crucifix (Boulnois 2008: 419). As Boulnois observes Zwingli acknowledged that fallen Man will always create false interior idols and give them an external material reality. 'The interior idol (*Abgott*) always comes before the external idol (*Götzen*)' (Zwingli in Boulnois 2008: 419). It was the role of the reformed church to protect the Christian subject from this tendency. Emphasis thus was on the word of God not the image, which is comparatively materially unstable and prone to inherent abuse. To provide images for the illiterate only inhibited the direct work of the word of God (Boulnois 2008: 419–420).

For Zwingli context and proximity were of supreme importance. Unlike English iconoclasts, Zwingli felt stained glass was immune to

idolatrous worship (Aston 1988: 257–258). Destruction would not rout out internal idolatry, the Word was the best means to prevent that from happening. Rather, it was proximity to images, the nexus that was formed, that was dangerous, especially in places of worship. Their visibility through physical proximity or visual illumination facilitated idolatrous relations, not the objects themselves, as vision functioned haptically to create this 'circuit' of propinquity presencing the divine. Thus they could be removed, 'extinguished' so to speak, by removing light and incense, and no longer exert their influence when separated from the circuit of idolatrous proximity and rendered 'safe', sent back to their sculptors or donors, to their workshops and homes. Thus individuals in Zurich were allowed to remove donated religious images to their homes. Physical and visual proximity and luminous apprehension within the precincts of the church were the registers within which propinquity with the divine was achieved. Once this was disaggregated, the 'circuit' broken, visually and physically, through distance and height (stained glass placed high up), removal to homes, or diminished visibility (removal of candlelight), then idolatry could be controlled and the Word could do its work. The physical integrity of material things was not called into question. This was not just a semiotic or iconoclastic reconfiguration of the material world into new relations based on underlying substances. Rather this was a subtle reworking of the sensorium and proximity of people to things through light, smell, colour and the wider senses to create a new set of circumstances that produced an 'immaterial' and thus incorrigible 'word' and a reformed Christian community.

Calvin

Calvin advocated the banning of holy images but retained the idea of profane didactic 'art'. Calvin's position insisting on the absolute invisibility of God was solidified by the recent discovery and later publication of the *Libri Carolini* with its extracts of the second Nicean Council. Because all images are born of sinful, frail flesh and injure God's glory, salvation can be achieved only by abandoning them (Boulnois 2008: 420–422).[1] As Aston (1988: 437) notes, quoting Calvin: 'Man's nature, so to speak, is a perpetual factory of idols . . . the mind begets an idol; the hand gives it birth'. But as the invisibility of God cannot be represented, other images which represent the visible, such as didactic and historical accounts, may be permitted.

Calvin's understanding of the 'physics' of the Eucharist contrast significantly with wider and radical Lutheran and other Reformers' understandings. Calvin developed his ideas in relation to his 'Institutes of the Christian Religion'. The 'Institutes', printed in Latin and then

subsequently in various vernaculars, served to educate through the printed word in a uniform and stable way across time, space, and cultural and political context – serving as a form of reformed instruction that would not be subject to the vicissitudes of politics, interpretation, language, community, place, displacement and geography. Thus, as Wandel (2006: 149) notes: 'The project of the Institutes was to inculcate a habit of mind, to "see" God's presence in revelation, both natural and verbal – no matter where the faithful found themselves, in exile or within the most familiar and comfortable of landscapes'. God is visible, within the metaphor of light and, as Wandel (2006: 151) states: 'God is everywhere visible, palpable, perceptible – somatically knowable'. Calvin's understanding of the Eucharist is thus in terms of 'signs': 'For Calvin, the "sign" of the sacrament was no empty icon, no artificial symbol, but a physical object in which divine revelation and human perception met' (Wandel 2006: 155–156). 'Signs' in Calvin's 'Institutes' thus serve as a site for human contact with the divine. But these signs are often very ordinary, their meaning is not readily apparent, but they serve to connect the human with the divine. As Wandel (2006: 157) notes, following Calvin: 'God even chooses substances that belong fully to the quotidian world of humanity – the most common and plain substances – to communicate with humankind. The elements – water, bread, wine – are "a mirror of spiritual blessings"' (see also Engleke (2005, 2007) on similar mundane substances such as pebbles and honey). For Calvin, analogy was key for the practice that would create a Christian. He rejected the notion of transubstantiation in the sense that what appeared to be bread was actually the body of Christ. Quite the opposite, he insisted on the moral and productive work of analogy where, to quote Calvin (in Wandel 2006: 161): 'Christ's purpose was to witness the outward symbol that his flesh is food; if he had put forward only the empty appearance of bread and not true bread, where would be the analogy or comparison needed to lead us from the visible thing to the invisible'. The work of analogy produces the moral Christian subject – a production that is continuous and lifelong. As Wandel (2006: 162–163) observes, Calvin did not attempt to analyse the 'physics' of the Eucharist-like Zwingli and Luther; this was believed to be a mystery. Similarly, the morally productive nature of analogic work helps to create a unity of one, a Christian *ecumene* out of many spatially, linguistically and culturally diverse Christians who through praxis and morally productive analogic work, through the 'Institutes', helped to create and realize a wide-ranging and universal Christian *ecumene*. Calvin was indifferent to 'the outward ceremony of the action [. . .] These things are indifferent, and left at the church's discretion' (Calvin cited in Wandel 2006: 164). Thus the Eucharist was, as Wandel

(2006: 165) observes, 'neither historical or mnemonic. For Calvin, Christ was not recalled, but actively present, permeating the community of the faithful, just as sunlight illumined the space in which they worshiped'; it was simply there all along. In 'The Belgic Confession' the key distinction was between the elected and the non-elected. The elect could interpret the signs communicated by God within the material world. Those who were not, would only perceive mere bread (Wandel 2006: 197). Wandel (2006: 201) notes that at this time 'Christians had a choice of Eucharists – for the first time' and with it a wider variety of technologies with which to presence the divine and the ability to exercise choice over those technologies. Whereas the Heidelberg Catechism posited a different understanding from the 'signs' of Calvin along with the Scots and French Reformers in terms of a 'token' (Wandel 2006: 206), as a base 'irrefutable' substance it was very stable and thus an ideal vehicle for the 'incorrigible'. Tokens were 'base matter' as Wandel observes: 'it is conventional, public, its meaning in no way inhering in it, but defined verbally. There is no mystery in a token' (Wandel 2006: 206). The result is that these 'signs' and 'tokens' served to make the church visible within the company of the worthy: 'It was not so much a moment of intimate communion, as of public identification' (Wandel 2006: 207). Thus these technologies served to effect a community of Christians, typically in the exclusive terms of the 'elect' – an altogether different social and material effect from earlier and prevailing 'Catholic' traditions which were reliant on church hierarchy and the institutional presencing of the divine. Materially, the significance of Calvin's 'physics', especially as understood in terms of the 'Institutes', provided a radically powerful and extensive means by which to presence the divine within the community of the elect in all places and at all times. The most mundane aspects of material experience could all serve to be semiotically configured as base 'substance', as signs of divine presence that was already there. But this semiotic work could only be done through the morally efficacious work of analogy making that focused on the individual, which makes evident the unity of divinity within the world from within its apparently irreconcilable and mundane diversity.

Luther

Luther according to Boulnois accepted the Aristotelian position that mental images are legitimate,[2] and accepted in the tradition of Gregory the Great the use of images as mnemonic devices and teaching aids. Indeed, he goes further, arguing that 'carrying the image of God in one's

heart is a sign of goodness and faith. This is an entirely traditional position: the most important setting for the image is interiority – "the heart" – and not sensible reality' (Boulnois 2008: 414). God is presenced in the hearing of the word of God, discrediting the image. 'The Kingdom of God is the Kingdom of hearing, not of sight' (2008: 416). Luther did not acknowledge a difference between the image of the invisible Father and the visible image of the Son. Nor did he distinguish between representation through painting and writing, metaphor and figuration: 'the painter narrates in images what the Bible depicts in words. Both are inadequate, both are indispensable' (Boulnois 2008: 418). Image and text were not segregated or seen as two distinct modes of signification or apprehension. Aristotelian theories of haptic vision meant that sculpture, painting, text were all means of presencing the divine and facilitating direct contact with it, the external image or the internal image, mediated respectively by a material external image (painting, sculpture) or an internal one (word). Furthermore, Luther's conception places the emphasis on the subjectivity of the observer rather than on the existence or the destruction of the object. What is important is the position of the observer in relation to the image. 'It is ultimately upon the spectator . . . that the correct or idolatrous use of images depends', because it is the observer who invests the image with meaning 'and not its form and objective status that orient his personal attitude' (Boulnois 2008: 418–419). In summation, Boulnois (2008: 427) notes that all the Reformation theologians could accept profane art images. Thus the interiors of Protestant churches were empty of images focusing worship instead on the produced immateriality of the word of God. But as Boulnois (2008: 428) states, 'nothing prevents the walls of picture galleries from being covered with paintings representing the visible, everyday world'. Images emerge as 'art' within a new register of 'aesthetic' objects and the birth of aesthetics in the modern Western tradition (Boulnois 2008: 428; see also Gamboni 1997; Gell 1998; Pomian 1990; Stafford 2001).

Wandel (2006) focuses on the 'physics' of the Lutheran Eucharist and the controversies that arose in relation to other reformers and their understandings. Luther's 'physics' here are instructive. The wider Reformation understanding of the fallibility of the sinful Christian was contrasted with the sense of the single solid and enduring entity: the printed word, or thing that was enduring, constant and unchanging over time and place. In the Lutheran understanding, human agency according to Wandel, unlike in the pre-Reformation era, was not necessary to instantiate presence: 'The words of Scripture were sufficient' (Wandel 2006: 99). Contrary to others, Luther did not believe in any 'representational'

quality of the Eucharist. As Wandel (2006: 103) notes, according to this Lutheran 'physics': 'Christ declared himself corporeally present each and every time, in each morsel of consecrated bread and in each drop of consecrated wine. There was no human agency, nor, for that matter, the constraints of human notions of physicality'. Christ's body was the body of God, divine and not subject to human understandings of the physical. Thus Christ's body could exist 'in different "modes"' (Wandel 2006: 104) and could exist in many different places, at different times. Wandel notes that Luther drew upon prevailing understanding of the senses that could understand sight as the ability to see things both near and far, as with hearing, which could perceive multiple voices simultaneously – all these incommensurable elements could be contained within the limits of human consciousness (Wandel 2006: 105). However:

> Even though the Host was for Luther truly Christ's body, it could not serve to link that body to the material world: insofar as it was Christ's body, the Host was divine – Christ's divinity at once made possible his presence in the Host and altered the Host's relationship to the material world.
>
> (Wandel 2006: 105)

Thus Wandel cites in relation to Luther's Confession of 1528: 'Images, bells, Eucharistic vestments, church ornaments, altar lights, and the like I regard as indifferent. [. . .] I have no sympathy with the iconoclasts' (Luther quoted in Wandel 2006: 105). For this reason the material culture of the unreformed church was entirely inconsequential when considering the question of presence and idolatry. There was simply nothing there but brute material artefacts, presence was not facilitated or augmented in any way by these unreformed technologies in the face of the printed and produced immateriality of the 'Word'. Thus images as 'indifferent' things could have an instructive purpose but in no way serve any other purpose or likelihood to presence the divine. The produced immateriality of the 'Word' and its incorrigibility was sustained by the inherently unstable, base, pragmatic and socially useful substances of the world.

The various emergent understanding of the 'physics' of the Eucharist were inflected by local contexts, each with a different consequence for the social effects of the Eucharist and the kinds of moral communities it produced. The 'Catholic' response, particularly in the wake of the Council of Trent in the mid-sixteenth century, served to fix and universalize Catholic doctrine in the face of these various configurations of the Eucharist and its 'physics'. As Wandel (206: 213) notes, priests were held to be mimetic exemplars of the life of Christ through 'their conduct

and their bearing, to give living expression to gestures, demeanour, ethics and morals that Christ had either taught or himself embodied'. To quote the writings of the Council (from Wandel 2006: 213): 'Hence it is most important for clergy called to share the Lord's portion so to fashion their whole life and habits that by dress, gesture, gait, speech and in every other way they express only what is serious, moderate and wholly devout'. As regards the Eucharist, the subtleties of Reformist approaches were countered with a simple and direct understanding of transubstantiation. As Wandel notes, the bread and wine is not a representation per Calvin or an equivalency per Luther (Wandel 2006: 223), rather 'Transubstantiation transforms the bread and the wine *both* into Christ "whole and entire", *both* the body and the blood' (Wandel 2006: 223). And it is the priest who in his mimetic Christ-like manners is able to effect this through a complex and sensorially and materially rich ritual dependent on gesture, vision, bodily movement, sound, colour and smell. This served to facilitate this transformation in the eyes of the Catholic faithful, in all places and at all times, according to a universal understanding of the 'physics' of the Eucharist and the means to achieve it, which was distinct from various local responses before the Reformation and those of Reformists themselves, and especially within the Americas and Asia, where radically different cultures and linguistic traditions prevailed – 'The Mass was to be the same, no matter where it took place' (Wandel 2006: 251) and thereby create the universality of the Christian *ecumene*.

In short, the great Reformers and the post-Reformation Catholic Church instigated a series of complex and innovative 'physics' or theories of the material in order to produce community and regulate social power. Within each emergent response, the role of new technologies such as optics and typography played a significant role in reworking the terms by which the material and immaterial were to be understood in relation to each other and the productive dualisms they enabled in terms of either consolidating small groups or producing truly worldwide communities. In every example the role of substance and the immaterial was worked within innovative semiotic terms to produce specific forms of religious and social life with their attendant re-workings of the sensorium and novel means for achieving propinquity.

Iconoclastic violence

Observers such as Michalski (1993: 6–7) note the importance figures such as Martin Luther placed on the 'visible church', which was a concern with the 'social costs of art' (Michalski 1993: 7) surrounding the Catholic Church's expenditures at the expense of the poor. It is against this concern with the 'social costs' of Catholic material and visual culture that

the iconoclasms of the Protestant movement can be assessed. The actual destruction of images occurs only briefly and intermittently, mostly people lived with them. Only for a fraction of time are they ever destroyed (Michalski 1993). These radical realignments of the material registers of artefacts functioned to lay them open for further radical appropriations. Once the socially utilitarian and contingently natural qualities of a 'substance' such as wood were highlighted, it made religious images available for further uses, outright destruction, re-incorporation, through pillaging, etc. What one might call an iconoclasm is merely a radical re-contextualization in different material registers and terms of propinquity, forging different forms of sociality. Images are not so much hated as they are put to different use on the basis of their reconfigured material registers – the Taliban considered the Bamiyan Buddhas just a pile of stones, which they irrefutably are, in addition to being a destroyed monument of world heritage and arguably more significant for being destroyed than in remaining intact, in part because of the remorseless means by which the iconoclastic act refigures a given thing for further appropriation and signification.

In relation to internal images, Michalski (1993: 25) notes how Luther spoke of 'external asceticism'. That is, opponents of images were misguided and were engaging in superficial activity in an irrelevant arena, 'demonstrating formal hostility to corporeal things'. As Michalski (1993: 38) observes: 'Luther refused to reflect on what religious art is and what it could be; he only asked whether it could serve the "weak" in their religious education. Art is a medium which lacks its own inherent sacrality'. Luther's concerns here are more with efficacy rather than a hostility towards images per se.

This concern with efficacy can be seen in the way that images in Zurich were purged. What was being refigured was the terms of propinquity in sensorial and visual terms through the removal or sensory diminishment of an image's power through distance, light or scent and thereby effecting a changed relation to the material. Michalski (1993: 75) notes that strictly speaking much activity that has been referred to as iconoclastic was in fact not – not in the destructive sense at least. Usually images were taken down, reduced by a higher authority in an orderly fashion. This was partially done in Lutheran countries, with the reduction of images, whereas sculptures and decoration were completely eliminated in Calvinist territories.[3]

Technically speaking, images were not destroyed so much as rendered powerless through a variety of means. One could disable them sensorially or they would be directly manipulated. They could be burned, sculptures and images had their eyes gouged out, heads or feet chopped off, skewered, etc. and thus remain as continuous reminders of their punishment

and powerlessness – not destroyed per se, but literally mortified – their material registers were refigured (Michalski 1993: 76–77; see Graves 2008). As Warnke suggests, these acts were designed to mock and humiliate – not so much destroy. Images would be thrown into latrines, or 'smeared with filth or with cow's blood' (cited in Michalski 1993: 77). It is important to note Michalski's (1993: 77) observation that reformist theologians never explicitly advocated violence towards images. Actual iconoclastic incidents (Michalski 1993: 80) occurred only in revolutionary moments, usually at the time of heightened popular tensions – often being opportunistic in nature and rarely the product of active sustained deliberation (see Gamboni 1997; Wandel 1994). Where reliable evidence for the social composition of iconoclastic participants exists, they tend to come from a broad spectrum of the middle classes with few aristocratic supporters (see Christin 1994; Michalski 1993: 80; Wandel 1994). Such opportunistic violence must be seen as exceeding the theological exegesis of Reformers – their radical reconfiguration of a given material register opened it up to radical re-articulations, as Christin (1994) argues (for England, see Grant 2008).

Observers such as Michalski note that the degree of actual violence, though spectacular, was relatively limited. Theologians advocated removal rather than outright destruction. Despite that, Aston (1988: 5) notes that the degree of actual violence during the Reformation was greater than anything previous to it. Aston (1988: 11) suggests that the particular intensity of iconoclastic violence might be attributed to the greater awareness of theological arguments against images through sermons and print: 'The better the theology of images was known and publicized, the larger the opportunities for lay intervention' (and see Christin 1994). To paraphrase Whitehead, 'the sentence was started' by the theologians and the lay population with its diverse interests 'completed it' and took things into their own hands.

Aston suggests that the preoccupation with the material within iconoclastic theology opened up the material world as a lightning rod for iconoclastic violence, if idolatry was by definition indistinguishable in its internal and external forms, and the difference between three- and two-dimensional images was not stressed in relation to idolatry in the sixteenth century (Aston 1988: 18), then idolatry technically existed uniformly along a continuum of physical dimensions from the internal immaterial to the external three-dimensional. Thus an 'external idol' is more visibly and communally amenable to assault then the 'inner idol' of the mind. The distinction we might make between an immaterial internal idol and an external three-dimensional material idol was not stressed. As such, the removal of images facilitated a certain form of thinking and knowledge,

since, as Aston (1988: 221) notes, faith could not be understood by looking at someone, 'but everyone could read at a glance the faith delineated in a church's appearance'. As the tumult of the Reformation progressed, particularly in England, the terms of the visual became more significant and conflicted.

Thus, much of the spontaneous iconoclastic violence might be understood less as specific hatred of images but more as a means by which to radically refigure social relations within the terms unleashed by theologians and the specific material registers of their theological interventions. Thus a certain material affordance emerges within these registers and an emergent commitment to the material and its registers as means for knowing the world, harkening back to the sentiments of St. John of Damascus[4] and the importance of the material, the body of Christ as a novel and powerful instantiation of the divine as Wandel observes – since God is apprehended in the material and corporeal terms of Christ. As Aston (1988: 12) notes, the nuances of theology were probably lost on most lay people (see also Christin 1994), but the emphasis laid on the material world, laid open the material world as an arena for action as the terms by which the issues unleashed by the Reformation could be legitimately and effectively addressed. Hence the preoccupation with decorations, images, furniture and ceremonial items, more readily apprehensible than theological discourse. Objects from drapes to chalices to statuary were simply more readily available qua objects for radical reincorporation in terms of their socially contingent base materiality (see Rio 2009). Iconoclastic violence was not restricted to images and often went after non-representational decoration as well as figurative images (as noted in reference to seventeenth-century England by Aston 1988: 70). What in another future register might be 'vandalism' (Gamboni 1997), in this particular register verges more on a material exegesis within a wider social and public community on how best to presence the divine and effect new, more just forms of social relations. Though the dissolution of immovable properties such as the monasteries in England served the economic interests of the crown and the aristocracy, Aston (1988: 282–283) argues not to underestimate the significance of moveable properties which were important for the wider population. It was at this level of moveable, portable goods that the wider society participated in the changes of the Reformation. Aston (1988: 283) notes:

> The winners of such alienated goods were all classes. At one end of the scale were the king's vast acquisitions of church plate; at the other end were people like Michael Sherbrook's father, who bought timber from the abbey of Roche in Yorkshire, or the nameless poor who made off with the bedding of Christ Church, Canterbury.

Similarly, Christin (1994) notes analogous dynamics in France in his attempts to find the missing link between theological injunctions and iconoclastic violence committed by the mob and by individuals. In particular, he notes a case in Poitiers in the wake of the Reformation when a young man overcome by emotion destroys a religious figure but is not accused of iconoclasm, but only of temporary insanity. Despite its historical context, the incident was not interpreted theologically in terms of a material exegesis. Christin notes that rioting crowds knew little about the doctrinal nuances of Luther, Calvin, Karlstadt and others. As Christin observes, images were destroyed according to the professions of the destroyers: the executioner burned statues as he would human offenders; the organists destroyed the organs; soldiers ridiculed, broke and burned church property in the manner of military pillage; notables, royal officers and magistrates made inventories (see also Aston 1988) and melted down church treasures into precious metals to fund the Protestant war effort; entrepreneurs made contracts for demolition and recycled beams and stones for resale; peasants recuperated tithed bacon and ham, wine and firewood. Personal interests were combined with general causes: 'The iconoclasts do thus participate in the establishment of the kingdom of the Gospel, as they claim, even if they are also driven by motives that are in part personal to them' (Christin 1994: 220). Christin (1994: 221) observes how the highly ritualized but destructive sacking of the churches of Lyon in 1562 was immediately followed by a letter from Calvin to the Protestant commander: 'Calvin notes "that without public authority, it is not lawful to lay a finger on goods that belong to no private individual"'. Upholding the principle of private property as Christin observes, the commander then radically changed the nature of iconoclastic actions, issuing formal contracts to his representatives and private demolition crews who in turn were paid for their work. Thus Christin notes, notaries established inventories of church goods and reported to the authorities. 'Iconoclasts acting independently are prosecuted as looters' (Christin 1994: 221).[5] Isaiah 44 refigures the material world into new socially relevant 'substances' and multiple registers, registers that permitted the radical refiguration of material things into different and at times incompatible registers – wood for idols, wood for burning, and for baking bread. Thus the holy could be refigured and reapportioned in ways in excess of their original meanings; theologians and their preoccupation with the material allowed a radical reapportionment with unexpected or expedient excesses, especially as those that suited the English Crown. The specifics of the semiotic act here produces a material and social fact. It creates 'substance' (wood) to be reworked towards different ends. The reduction of things to a recalcitrant materiality of substance such as wood was a profoundly ideologically motivated act – a theological exegesis in material form.

This realignment of the immanence of the material was reiterated in the iconoclastic statements of John Knox during the English Reformation, echoing earlier Lollard sensibilities regarding the immanence of the material and reprising directly Isaiah 44. Michalski (1993: 187) observes how Knox, while

> in Catholic captivity was given an image of the Mother of God to worship, he responded saying: 'Mother? Mother of god? [. . .] This is no mother of god: this is a pented bredd [painted board] – a piece of wood, I tell you, with paint on it! She is fitter for swimming, I think, then for being worshipped' [. . .] and flung the thing into the river.

This radical realignment of material affordances exemplified the inadequacies of such image-based technologies for presencing the divine in favour of the produced immateriality of the 'word' sustained by print, the vernacular and the spatially regulated sermons of the pulpit. These and other examples show how these rhetorical shifts reconfigure the material register in which something is apprehended and alongside reconfigure the sensorial terms in which it is engaged. Karlstadt and Haetzer both echo Isaiah 44: 16–18 as Michalski notes to denigrate idols as mere matter, citing Isaiah:

> He [the sculptor] cuts down cedars, takes a holm or an oak . . . With a part of their wood he warms himself, or makes a fire for baking bread; but with another part he makes a god which he adores . . . Half of it he burns in the fire, and on its embers he roasts his meat and eats it . . . from what remains he makes a god, his idol. (cited in Michalski 1993: 187)[6]

This scene illustrates the principle of the 'stubborn fact' in Whitehead (1978: 129):

> in our experience, we essentially arise out of our bodies which are the stubborn facts of the immediate relevant past. We are also carried on by our immediate past of personal experience; we finish a sentence because we have begun it. The sentence may embody a new thought, never phrased before, or an old one rephrased with verbal novelty. There need be no well-worn association between the sounds of the earlier and later words. But it remains remorselessly true, that we finish a sentence because we have begun it. We are governed by stubborn fact.

In short there are 'commitments', following Rouse (2002), and 'stubborn facts', following Whitehead (1978), rather than some form of transcendent or immanent materiality. Rather, this 'immanence' might be seen instead as 'effect' or more suitably as a literal 'artefact' of these irreconcilable commitments. Thus such intractable and impacted commitments that effect 'immanent materiality' might be alleviated by novel shifts in registers and the terms of propinquity they establish, such as a digitized artefact for use by indigenous groups or the notion of 'keeping while giving' (Weiner 1992). Antagonistic registers might otherwise be more happily accommodated and stabilized, as in Munn's (1992) use of the qualisign, where one entity depending on a register of disposition falls into two categories of either female or male. In Munn's reading of Peirce, the icon is always characterized by having another quality from the one that is present, the icon in a sense embodying this principle of simultaneous registers holding both together within the economy of its particular register.

As Wandel (1994: 9) notes, iconoclastic violence was not restricted to just mere images despite the name we attach historically to these events. Not just images, but many artefacts, lamps, candlesticks, carvings, stained glass, vestments, etc. were the focus of the iconoclasts' wrath. Images and the material culture of the church were the setting in which most churchgoers encountered the divine, and thus held a specific importance for the church laity as Wandel observes, above and beyond the significance attributed to this body of material culture by theologians, Reformers and church officials (Wandel 1994: 51). The material by virtue of its relative ubiquity and semiotic re-alignments, could be susceptible in terms of Isaiah 44 and rendered ideal for focusing and coordinating social action and refiguring social relations – thus simultaneously invoking both the significance of the material for the instantiation of the divine in the tradition of St. John of Damascus and the availability of the material qua socially significant substance to be radically reconfigured towards novel social and material ends.

Images and books

The Reformation preoccupation with the abuses of idolatry was fuelled by the possibility of a more direct and efficient presencing of the divine through the produced immateriality of the 'word' facilitated by the impact of the printing press. Cummings (2002) observes that the solution to idolatrous abuse was to move from images to text. In 1538, official injunctions by the English king to remove images from churches where they were suspected of idolatrous abuses coincide with the ascendance of the vernacular bible. Every parish was to order bibles from printers (Cummings 2002: 185) and actively encourage people to read the bible.

As Cummings (2002: 186) notes: 'The objection to images, as to pilgrimages, and relics, is based on a rigid adherence to the rule of the book: the people are warned "not to repose their trust and affiance in any other works devised by men's phansies besides Scripture"'.

The immaterial word was profoundly implicated in this new semiotic realignment: '"Books for Images" was the rallying cry of this radical new attitude' (Cummings 2002: 186). However, as Ong (1967) notes, this immaterial quality was very much materially produced. This was a denial of the embodied, social and communal quality of the word in oral–aural culture in favour of a produced immaterial 'word' as opposed to 'marks on a visualizable surface' that deny the exteriority of the world in relation to the typographical word of God (Ong 1967: 280). As Cummings (2002: 187) notes, 'Bibliolatry was paid for by iconoclasm' and, more revealingly, bibles were to be funded by a tax on candles placed before images. Cummings (2002: 188), referring to Christopher Haigh, notes that the removal of lighting from images in fact protected them since they could no longer do any harm. Darkness here served propinquity in terms of rendering something physically co-present far away through the negation of luminosity (see Bille 2010).

> The visual incorporates the world of the material, and is limited to it. The world of the spirit is by definition immaterial and invisible, beyond the reach of images, which can by seeking to imitate it, only become idolatry. . . . 'But the word of god is spiritual / and alone is of use to the faithful', wrote Andreas Karlstadt in his 1522 treatise on the abolition of images.
>
> (Cummings 2002: 187)

Cummings argues that this is a battle between two semiotic theories between images and books. Rather this can be seen additionally as the competition between two emergent material registers and their attendant sensoria. According to Tyndale, Cummings (2002: 190) argues, 'Images are books but they are not very good books. They produce book-meaning but less efficiently and less reliably. If Gregory recommends imagery as an aid to the illiterate, then Tyndale replies that it would be better to teach them literacy' (which in the climate of the Reformation and in the wake of the typographic revolution is altogether more realizable than it might have been during the Byzantine iconoclastic controversies). Cummings (2002: 191) discusses the debate between Tyndale's promotion of books as better than images, and More's assertion of images over books (or just as good as books, if a word represents and an image does as well, why not then have the image?).

At heart, 'This is an argument about the relationship of either images or words to things' (Cummings 2002: 193). With Tyndale, 'it is the apprehension of the image as thing which constitutes its "abuse"' (Cummings 2002: 193) as well as a concern over the relative instability of things qua substance and material towards incorporation into various projects. It is important to note the shift in material register here and the sensorial hierarchy implied. As Cumming (2002: 193) notes, 'The idolator cannot tell what a word is, and so can no longer tell what a thing is either'. What is at stake here is an entire ontology and with that a shift in material register by which propinquity is achieved.

Cummings notes, both images and books are subject to threat and promise: 'Each promises ultimate transcendence and each is threatened with annihilation. The true battle against images is not about objects but how they are understood to signify, and what they are held to contain' (Cummings 2002: 193). Cummings notes, following Duffy (1992), 'the move from Erasmus's Neoplatonic antimaterialism to the physical removal of images as a logical next step' (Cummings 2002: 196). Iconoclasm 'is a symptom of an anxiety about the function of mimesis in religion'. Where books and images are concerned, this anxiety is particularly pronounced and lines of distinction are unclear (Cummings 2002: 198). Thus, Cummings argues that the burning of books and burning of images are linked activities. Cummings (2002: 199) argues for the material culture of books and censorship, not in terms of their contents but how they were manipulated as artefacts – i.e. 'chopped up and defaced, single words and names were erased or pasted over. Annotations were painted over in ink', and of course burned – just as susceptible to the logic of Isaiah 44 as any other idol. During the Reformation iconoclasm and biblioclasm were related, seemed to follow one another, and were similarly handled physically that is destroyed in similar ways (Cummings 2002: 199) – highly visible and communally witnessed as Cummings notes. The act of burning the book demonstrated that the book was 'an intensely physical object, not merely a conveyor or container of ideas' (Cummings 2002: 202). Duffy (1992: 213–220) similarly observes how prayer books, printed in Latin, were illegible to the masses and were treated as ritual objects rather than texts themselves (see also Engelke 2007), harkening back to Ong's (1967: 280) argument about the repressed materiality of typography that produced the immaterial word. This was repressed for theologians but self-evident to illiterate masses who could only perceive such things as substance rather than the immaterial word. Thus a multiplicity of registers can inhere in a given discrete artefact like a book, and must be understood in terms of these multiple registers inhering at once and available for use in different and specific ways and in specific

contexts as a result of its distinctive, yet produced, affordances: text can work one way, spoken words another (see also Keane 2005, 2007). And if text is not assimilable to one register then its material form nonetheless unarbitrarily makes it assimilable in a novel manner in another register, hence the burning of books. Thus the period saw remarkable and novel hybrids between humans, words and things. Heretics and books were conflated in the rituals of punishment in London. Condemned heretics had holes made 'in their garments and strings tied between them. From these strings were hung heretical texts, so that the men's coats were "pinned thick" with proscribed books'. At Cheapside they were forced to put their books on the fire' (Cummings 2002: 202–203).[7]

Image and text would compete directly with each other. Often images would be 'graffitied' over with text under King Edward VI. 'At Binham in Norfolk, the rood-screen of St. Mary's priory was cut down, painted over in white and then covered with texts from Tyndale's translation of the new testament' (Cummings 2002: 204): producing 'a world in which visual and verbal cultures are at war with each other, and within themselves' (Cummings 2002: 205). This point might be considered otherwise in terms of how multiple registers might inhere within a given artefact such as a book, not being in conflict as much as a case of different registers in operation, and with the possibility that different material registers can inhere together because of given material commitments – e.g. different registers will inhere within a text, as opposed to a sculpture, and with them different forms of knowledge and sociality. Thus wood is amenable to burning or re-carving, books are amenable to burning and erasure. A book ceases to be a produced 'immaterial' referent as relayed within the circuit of divine presence, but is subject to material and sensorial reconfiguration itself, as a discrete thing, as 'substance' bound woodpulp and ink to be burned, as Isaiah 44 teaches. Thus:

> The Marian biblioclasm was as full of mad hatred as the Edwardian iconoclasm. Each seems caught in a nexus of mimesis, so that the two forms of violence are mirror images of each other, reflecting the impassable divide between word and thing. The book is felt to be more than the contents of its letters, just as the image is felt to be more than stocks or stones. Each requires a more palpable destruction then mere annihilation.
>
> (Cummings 2002: 205)

Thus in a similar fashion as Cummings notes the former Regius professors of Divinity and Hebrew in Cambridge were exhumed and burned at the stake long after their deaths (Cummings 2002: 205). Their bones and books were burned together (later they were reburied under Elizabeth)

Figure 4.1 Burning of the remains of Martin Bucer and Paul Fagius, Cambridge.

after having been exhumed from St. Michael's churchyard and burned in Market Square (Cummings 2002: 205–206) (see Figure 4.1, as featured and discussed in Cummings 2002, Figure 15). This image shows the collision of 'iconophobia and bibliophobia [. . .] Neither image nor word is a safe haven set apart from the primitive world of things' (Cummings 2002: 206). The injunction of Isaiah 44 and the assertion of substance subverts the produced immateriality of the word, in order to make it the material nexus in which it is produced subject to radical reconfiguration towards new social and material ends.

As the word gained in importance for accessing the divine at the expense of images both material and immaterial, the Decalogue (the ten commandments) takes on particular importance in English contexts, as Aston observes (Aston 1988: 344) (see Figure 4.2). The Decalogue itself was reworded in the English vernacular to emphasize the sin of idolatry: 'Thou shalt not make to thyself any graven image' (Aston 1988: 344–347). It was at the 'bar of the Decalogue' that Aston (1988: 347) notes how the individual mastered his own self-examination in a direct and unmediated fashion. But even though 'the word ousts the idol' (Aston 1988: 444), the ekphrastic tradition and the continuum of inner immaterial and outer material images meant that 'The spiritual enemies of the seventeenth

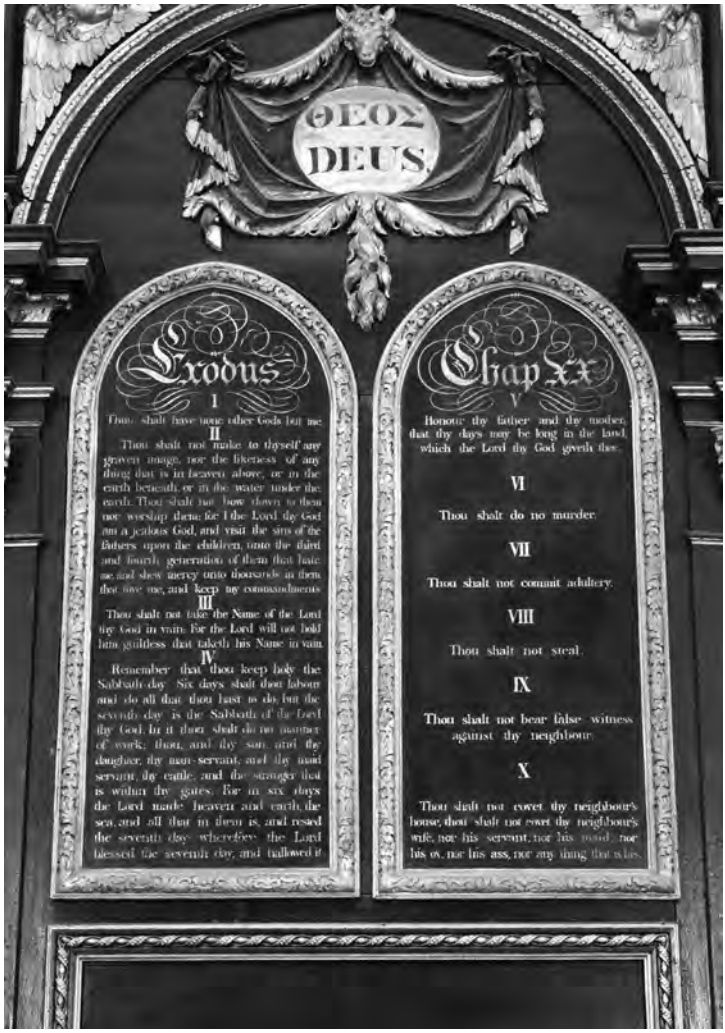

Figure 4.2 The Decalogue, St. Martin within Ludgate, London. Photo: Mitchell Moreno.

century seemed to lurk more and more in the unlit corners of the mind' (Aston 1988: 465). Thought itself was vulnerable to 'mental misimaging' (Aston 1988: 452). Thus the terrain would shift as the sensorium of the time insisted from the external to the internal. 'The destroying must burn within, in the "house" of the imagination', Aston (1988: 460), citing 'Crosses Case in Cheapside': 'Reformation tells me, I must throw

down the idols before my eyes . . . therefore let the idol fall, let his ornament be defiled, whether without and before the eye, or within the house of my imaginary' – expressing a profound ambivalence between material thing and immaterial word, a key theme that will be reprised here throughout. Later John Milton would exploit these changing registers to argue for the printed book itself, whether secular or sacred, to function, according to John Schaeffer (2000), as the Eucharist in various conflicting and sliding registers in his *Areopagitica* – Milton's unsuccessful plea to the English Parliament for the uncensored and unlicensed publishing of books. John Schaeffer observes how Milton characterizes printed books as 'containers of both blood and spirit', as mind, as food, as breeding body, 'as biologically active', and overall as Eucharist that produces community (Schaffer 2000: 86–87).

Immanence and materiality

Within these shifts of register the question of immanence and materiality emerges in more complex terms. The Lutheran shift as regards materiality and immanence suggested as Michalski observes amongst 'Lutheran theologians . . . as supporters of the Real Presence of Christ in the Eucharist, generally agreed that the sacrament is a sign participating in the power (*virtus*) of the object represented' (Michalski 1993: 176). Michalski (1993: 177) notes how 'For Luther Christ is not immanently connected with any given external (*res externa*), and only in the sacrament of the Eucharist can he be "bound"', thereby echoing earlier Byzantine aniconic understandings. Gamboni (1997: 312) similarly observes in relation to Luther that 'images are "neither good nor bad"' but depend on the word. As Gamboni (1997: 312) quotes Luther: 'if you take away the word or see it without the word, then you have nothing but mere bread and wine'. Michalski (1993: 177) notes further that 'The sacrament is a synecdoche on the principle of *pars pro toto*, and so its link with the body of Christ – by contrast to other tropes – is inseparable'.

The semiotic validity of the Eucharist as synecdoche was further validated as suggested by Michalski by Calvin in the second Helvetic confession of 1566:

> However, the object of delusion is of necessity something false, and it can never be called true because it pretends to be true by means of its external appearance and imitation. So if all imitation is not the thing itself but only play, then there is nothing of religion in images. Hence let us fashion a better, higher and more spiritual notion of Christ than when we look at him by means of paint and images, which differ from the truth as far is possible.
>
> (cited in Michalksi 1993: 183–184)

This was a plea for a better technique by which to the presence the divine that was offered by 'the word' through typography.

Ong (1967: 278) suggests that Catholic understandings of immanence could be attributed to material things, such as water when used to wash in the baptism, as being efficacious in producing a new internal relationship with God. Matter here becomes a sign, a sort of word and, as such – a word – indicating a spiritual reality beyond the sensible world; thus the material as word becomes efficacious, exhibiting a certain degree of 'physical power' (Ong 1967: 279) as Ong notes, the effect of which is transcendent and interiorizing at the level of constituting a Christian soul. While in the Protestant 'typographic state of mind' (Ong 1967: 280) this efficacy is rejected as superstitious, since the word as the word of god shaping the soul can only act directly to be efficacious:

> Words must affect the heart or interior consciousness of the hearer as something isolated from the exterior world. We have earlier seen how, paradoxically, it is only when words are removed from their natural habitat of sound and made to appear something they are not, namely marks on a visualizable surface, that they appear to be set off from exterior things.
>
> (Ong 1967: 280)

Thus Ong (1967: 229) suggests that its transcendence seems to be the product of the material affordance of the physical nature of typescript, allowing words to be detached in a novel way from its 'natural' aural environment, and as such 'giving them a curious thing-like permanence as marks on a surface' or further articulated as a more widely circulated object/book. Thus thing-like it can of course be like other things and be burned – its susceptibility to burning being less a consequence, as one might propose, of some recalcitrant materiality but in terms of a semiotic detachability that is materially produced, through innovative typography, rendering something once fixed to a particular aural context as something detachable – to be circulated and then novelly to be burned.

Idols and fetishes, materiality and substance

The issue of the fetish and idolatry is an especially significant problem for this period. Pietz argues that the two are distinct, one the distinctive problem of divine presencing in the Christian example, whereas the fetish is the historical artefact of an encounter off the coast of West Africa in the sixteenth and seventeenth centuries (Pietz 1985). Though idols pre-existed fetishes and the problems of idolatry and fetishism

were contemporaneous in European thought during the sixteenth and seventeenth centuries in the wake of the Reformation, he maintains that the two are distinct and function in radically different ways and contexts. In particular he notes how the problem of idolatry was a long-standing one within the Christian tradition, while the fetish 'was a radically novel production associating things and purposes momentarily in a random event' (Pietz 1987: 45). One presenced the divine (the idol), the other (the fetish) would achieve a singular and purposive effect (to heal, to harm, etc.); one was institutional, the other not. Thus 'the fetish must be viewed as a proper to no historical field other than that of the history of the word itself, and to no discrete society, or culture, but to a cross-cultural situation formed by the ongoing encounter of the value codes of radically different social orders' (Pietz 1985: 10–11) and 'the essential materiality of the fetish – that is, the fetish is precisely not a material signifier referring beyond itself, but acts as a material space gathering an otherwise unconnected multiplicity into the unity of its enduring singularity – the category of "territorialization" was established' (Pietz 1985: 15). Pietz here provides the example of West African Akan gold weights, which could weigh gold, communicate indigenous proverbial wisdom, and protect and heal the body (Pietz 1985: 16; see also Rio 2009 on the singularity of 'objects' and their wider availability for social reproduction).

However, despite these clearly argued points, Pietz's discussion suggests certain distinct issues related to the fetish that are worth relating to some of the inherent problems associated with idolatry, namely the misrecognition of relations as regards the material, and the issue of multiple registers co-existing and in conflict within one 'thing'/'res'. The fetish in particular is characterized in part by 'the radical historicality of the fetish's origin: arising in a singular event fixing together otherwise heterogeneous elements, the identity and power of the fetish consists in its enduring capacity to repeat this singular process of fixation' (Pietz 1987: 23):

> the fetish could originate only in conjunction with the emergent articulation of the ideology of the commodity form that defined itself within and against the social values and religious ideologies of two radically different types of noncapitalist society, as they encountered each other in an ongoing cross-cultural situation.
>
> (Pietz 1985: 7)

Thus the fetish 'remains specific to, the problematic of the social value of material objects as revealed in situations formed by the encounter of radically heterogeneous social systems' (Pietz 1985: 7).

Thus the fetish as a historically and territorially situated object functions very much in the way that Latour (in Latour and Weibel 2005) asserts the 'res' or thing as an effect of this conflict in the sense that 'the res that creates a public around it' (Latour 2005: 16). The 'thing' as a discrete materialized object is the effect of a common concern, in much the same way that Strathern (1999: 177) posits that property is an effect of a sustained stoppage of flows: '[o]wnership re-embeds ideas and products in an organism (whether a corporation, culture or individual author). Ownership gathers things momentarily to a point by locating them in the owner, halting endless dissemination, effecting an identity'; or in the way that the philosopher of science Di Francia (1988: 24) describes physical objects within physics as a 'lump of invariants'. Thus, if things are the means by which people are gathered, then it might be said that when confronted with multiple and conflicted understandings of the 'thing' at hand other than its basic qualities, that which no one any longer cares to dispute, following Rorty, represents a common understanding of 'fact' or 'norm' by another name (what Daston (2005: 680–683) refers to as 'hard fact' that is ultimately trifling). Thus when one thinks about irreducible materiality, in the manner of the fetish or as described by Keane, Sansi-Roca (2005) and others, woodness in all its manifestations, rather than a representation of a victim of torture or the son of god, is in itself an 'artefact' in both figurative and literal senses of this understanding, nothing less and nothing more – an historical artefact of an encounter, usually a conflict. No one has much at stake in disputing the trifling and banal quality of 'woodness'. This irreducible materiality that Pietz associates with the fetish which fixes it in such a specific and territorialized way – to this point here, to nothing else but this – is the key distinguishing aspect of the fetish whose conditions are historical, contingent and the result of a profound incommensurability that produces such 'irreducible materiality' and radical territorialization. Locke's observations regarding the inherent arbitrariness of any notion of substance are very instructive here. The cabinets of curiosities described by Stafford (2001) and the 'Cartesian table' described by Crary (1992: 63) create radical affinities in relation to arbitrary substance that are a consequence of the spatial act of rendering proximate disparate things within a nexus for comparison and analogic ordering ('all things mineral', 'all things animal', etc.). This is the semiotic sleight of hand produced through analogy that is at once a semiotic artefact as well as spatially and materially produced. Such 'irreducible materiality' is merely an artefact or more precisely an effect of this historical incommensurability – what we are left with in such a settlement, which then opens up the possibility for extending this notion of 'woodness'. To upset this is what we shall see is the result of the 'devil's work' according to the Protestant quietist Antonia Bourignon (1696: 95):

'He makes Mercury of every Wood'. Such a refiguration is a means of purification within a power play of meaning, and attachments in terms of what 'things' are able to gather in terms of the moral and material terms of propinquity. Material recalcitrance or transcendent materiality are like the fetishes described by Pietz, merely the historical effects of such social impasses that effect the appearance of a 'norm' (following Strathern) – what is left produces a norm when all the elements of incommensurability have been purified – a normative 'substance' is thereby produced. And this 'substance' then becomes available as a result of this purification and settlement for other unexpected, novel, but non-arbitrary uses which are the historical consequences of these processes.

Locke is eminently useful here to understand this apparent impasse regarding substance and 'thingness', *contra* Olsen *et al.*'s (2012: 13–14) observations that 'Things . . . are thus *irreducible to our representations of them*' and that they are 'what they are in their own being'. Following Locke, observations of substance which entail reducing a complex entity/thing to its supporting element or substance (e.g. wood/woodness) is an inherently ambiguous and arbitrary operation which is more a testament to human creativity in making (and unmaking) the world rather than an observation of some stable characteristic of the thing at hand. Locke (1975: 305) observes that the substance of the material and the insubstantial quality of the immaterial are two equally obscure concepts that in fact exist in mirrored symmetry to one another:

> For putting together the Ideas of Thinking and Willing, or the Power of moving or quieting corporeal Motion, joined to Substance, of which we have no distinct Idea, we have the Idea of an immaterial Spirit; and by putting together Ideas of coherent solid parts, and a power of being moved, joined with Substance, of which likewise we have no positive Idea, we have the Idea of Matter.

Returning to the points made in Chapter One, both are logically insupportable according to Locke, and both speak, as we saw earlier with Rorty and Thalberg, to the normative understandings and dualisms that structure daily life. In short, 'substance' and the material like the immaterial are the productive dualisms that sustain the terms by which social life can proceed:

> Because, as I have said, not imaging how these simple Ideas can subsist by themselves, we accustom our selves, to suppose some Substratum, wherein they do subsist, and from which they do result, which therefore we call substance.
>
> So that any one will examine himself concerning this Notion of pure Substance in general, he will find he has no other Idea of it all, but

> only a Supposition of he knows not what support of such Qualities, which are capable of producing simple Ideas in us; which Qualities are commonly called Accidents.
>
> (Locke 1975: 295)

By this argument regarding the material world, Locke thus concludes that the immaterial and the material are understood equally obscurely; in fact they are almost in inverse relation to one another. More importantly though, when considering the implications of Isaiah 44 under the conditions of the Reformation, which purport a radical understanding of substance in terms of the wood of the idol, is the way that that substance can be used for a great variety of purposes and thereby challenge the authority of the idol made of that very same substance. Breaking things down to produce these component substances, such as wood in Isaiah 44, is a radical act of iconoclastic restructuring producing an entirely different ideological understanding of 'substance' that would break pagan and idolatrous tendencies and produce monotheism. Such empiricism, according to these underlying categories of substance, produced the post-Reformation world and the modern scientific era (see Shapin 1996) and make us increasingly more alien to ourselves in terms of an expanded sensorium as in the words of Locke (1975: 302): 'But were our Senses alter'd, and made much quicker and acuter, the appearance and outward Scheme of things would have quite another Face to us; and I am apt to think would be inconsistent with our Being, or at least well-being in this part of the Universe, which we inhabit'.

New technologies and the Reformation

Along with the development of typography, other new technologies had an impact on the reconfiguration of material registers and their attendant sensoria in the wake of the Reformation. In particular, as mentioned earlier, the development of the camera obscura and subsequent advances in optics with the telescope and the microscope. These innovations are at the heart of what various observers have identified with the emergence of the oft cited ocularcentrism of the West (Crary 1992). Here again the questions of propinquity and new emerging relations that presence the divine and also position the self in a given space are key, as observed by Boulnois (2008). The development of optics and other scientific means for presencing absence positioned themselves as competing means with which to presence the divine. Simon Schaffer notes how English Protestants positioned themselves as iconoclasts uncovering idolatry in political, religious and scientific contexts to posit new and more effective means at presencing (Schaffer 2002: 500). As Schaffer (2002: 500)

notes, 'enterprises in religion, the science, and the arts were entangled with each other in the work of optical ingenuity and its philosophy'. Additionally Steven Shapin observes how the Reformation in particular laid emphasis on the Augustinian notion of the 'Book of Nature' being the second book of God to that of the Bible and therefore a worthy authority on God's purpose. Shapin observes further, as typography facilitated the individual and direct apprehension of God's first book, the Bible, direct individual empirical observation facilitated the apprehension of God through his second book, the 'Book of Nature' (Shapin 1996: 78).

The camera obscura

Crary (1992: 27) notes how the principles emerging from the camera obscura forged the dominant visual paradigm between the sixteenth and eighteenth centuries (see Figure 3.1). Crary in particular notes how the camera obscura produced a kind of ascetic individuated self and 'metaphysics of interiority' that 'defines an observer as isolated, enclosed, and autonomous within its dark confines. It impels a kind of *askesis*, or withdrawal from the world, in order to regulate and purify one's relation to the manifold contents of the now "exterior" world' (Crary 1992: 39), just as Boulnois (2008) observes in relation to de Loyola's 'Spiritual Exercises'.

As Crary (1992: 41) also notes, one aspect of the camera obscura is that it prevents the viewer from perceiving their presence as part of the observation – 'The body then is a problem the camera could never solve except by marginalizing it into a phantom order to establish a space of reason'. Thus, Crary proceeds to describe how this technologically mediated understanding of the self informed dominant understandings of ontology, self and knowledge, such as in Locke's *Essay Concerning Human Understanding* (cited by Crary 1992: 41–42) Crary cites Locke:

> External and internal sensations are the only passages that I can find of knowledge to the understanding. These alone, as far as I can discover, are the windows by which light is let into this dark room. For, methinks, the understanding is not much unlike a closet wholly shut from light, with only some little opening left . . . to let in external visible resemblances, or some idea of things without; would the pictures coming into such a dark room but stay there and lie so orderly as to be found upon occasion it would very much resemble the understanding of a man.

This understanding of the room extends to the idea of a camera, the chamber of a noble person (Crary 1992: 42). There is a nesting of spaces

from the space of the camera containing the noble or judge as Crary notes, observing the world to the space within the mind through which those observations are projected onto the brain. Crary further observes Descartes' own understanding of the working of the mind and perception which separates mind and body through the model of the inner workings of the camera obscura that structured prevalent notions of vision, where the mind is understood as the space within the brain onto which images are projected through the eyes, and knowledge thereby is produced as the perfect imprint of the observable world on the mind. Crary (1992: 43) observes, citing Rorty, that Locke and Descartes are describing something 'fundamentally different' in Western thought – to expand upon Crary's citation of Richard Rorty:

> Nor had there been the conception of the human mind as an inner space in which both pains and clear and distinct ideas passed in review before a single Inner Eye. . . . The novelty was the notion of a single inner space in which bodily and perceptual sensations . . . mathematical truths, moral rules, the idea of God, moods of depression, and all the rest of what we now call 'mental' were objects of quasi-observation.
>
> (Rorty 1980: 50)

As Rorty notes, the ancients and medievals did have an idea of an inner space of observation but it never assumed the significance that it had in the wake of Descartes and Locke (Rorty 1980: 50–51).

This novel spatial configuration materially produced the conditions within which a new semiotic and ontology emerged. Essentially empty, immaterial but the locus of everything, it becomes the centre of gravity and key organizing principle about which things emerge within its relative proximity – a shift from the exteriorized vertical heavens above to the interiorized private and individuated reason of Man. As Boulnois (2008) notes in relation to the analogous processes within the 'Spiritual Exercises' of Loyola, a profound shift in terms of the social and spatial constitution of knowledge emerges focused on a produced incorporeal immaterial spirit/self at the centre of artificial perspective, at the centre of the camera obscura and at the centre of Loyola's 'Exercises'. Thus the immaterial nature of the spirit\subject is produced within these configurations whose legacy is keenly felt as an organizing and productive principle to the present day (see Miller 2005 on the contemporary need in anthropology for overthrowing the sovereignty of the subject). The camera obscura becomes the means by which the 'immateriality' of the mind can be apprehended or rather produced both materially and spatially in reference to this experiment and thereby secure its 'incorrigibility', in

Rorty's terms, and thereby secures the conditions of a novel ontology (just as in the opposite semiotic fashion the reduction of 'things' to 'substances' secures a normative yet arbitrary datum for the regeneration of social life).

MacGregor (1999) describes how this model of the camera obscura combined with innovations in print making to form commonly held understandings of the way humans perceive visual information and the way memory works in the human mind and is invested with a certain epistemological authority. This primacy of the print metaphor was further reinforced by the metaphor's similarity with the authority of wax seals on official documents. Quoting from Charles Talbot, MacGregor (1999: 393–394) notes:

> Since the print had pressed against the form-giving object, some invisible quality of that former presence might be thought to remain attached to the impression . . . [much as] clothing could acquire status of a sacred relic when it had been worn by a saint . . . [each instance depends on] the belief that contact with the original form imparted special authenticity to the resulting image.

As MacGregor (1999: 404) notes, this was a far cry from the inauthentic mechanically reproduced image of Benjamin divested of aura while updating the wax tablet metaphor derived from Aristotle and further articulated by Descartes in his understanding of visual perception (MacGregor 1999: 405). MacGregor observes how Descartes notes that the incommensurability between the thing depicted and the image itself was quasi-magical if not somewhat risible:

> fashioned from just a bit of ink dotted here and there on paper, represents to us forests, towns, men and even battles and storms. And yet, out of an infinite range of qualities that they lead us to conceive in these objects, *only in shape is there actually any resemblance between them*.
>
> (Descartes quoted in MacGregor 1999: 405 [italics added]; see also Taussig 1993)

Print making, MacGregor notes, is the impression of acids and inks on paper, as in Locke's comparison of a baby's mind to a blank piece of paper in MacGregor (MacGregor 1999: 410). Thus the antique intaglio metaphor MacGregor describes of impressed wax is comparable to the imprint of ink on paper and an indigenous understanding that the brain receives images, as in MacGregor's reference to Fenelon's pedagogical essay of 1688 in regard to the softness and malleability of immature

brains: 'This softness of the brain is the reason why all things imprint themselves so readily on it, making for highly vivid images there of every sensible object' (Fenelon quoted in MacGregor 1999: 414).

Science and divinity come into particular contact with developments in optics (Schaffer 2002: 500) as new technologies of presence produce new terms of propinquity. A particularly interesting comment on this relation to the immaterial and the proper nature of human attachments is evidenced with the controversies and issues surrounding the development of microscopy. Here the question of propinquity and the nature of human attachments is highly instructive.[8] If there were to be a technology par excellence for presencing the invisible it is the microscope. Nothing could be perceived as more immaterial than the invisible and untouchable, that realm of material affairs that cannot be discerned by any of the known human senses. The development of microscopy in the seventeenth century, particularly in the wake of the Reformation and counter-Reformation, introduced some peculiar problems for the apprehension of the invisible and the divine, upsetting prevailing sensorial realms of knowledge.

Early microscopy coincided with exploration and contact with new peoples. In a similar spirit these investigations followed that of the explorer, going out into new territories and encountering new societies at the micro-level rather than the macro-level. Wilson (1995: 207–208) notes how Fontenelle and Leibniz both speak of the microscope as a new world in miniature with landscapes and inhabitants that are wondrous, often employing biblical analogies with biblical people. Thus Hooke could write, as Wilson observes, that 'every considerable improvement on Telescopes or Microscopes [produces] new Worlds and Terra Incognita's [sic] to our view' (quoted in Wilson 1995: 244). Similarly, as Wilson observes, Thomas Moffet in his *Theatre of Insects* attempted to establish moral lessons of the world on the basis of the observation of insects. Ants illustrated democracy, spiders and silkworms the moral lessons of the domestic economy, bees the workings of architecture, and parental care was represented by oil beetles (Wilson 1995: 183–184). Thus later in the eighteenth century, Wilson notes, Lesser in his *Insecto-theologia* of 1738, could argue that insects existed to teach moral virtues to humans (Wilson 1995: 209).

However, the status of images produced by man to presence the divine was at the heart of longstanding disputes over the nature of images and their ability to do so. The microscope was no stranger to these debates. Wilson observes how Vasco Ronchi notes that optics before the seventeenth century was generally distrusted, following that line of Augustian thinking that distrusted sight and all forms of material images (in Wilson 1995: 215) and how glasses were considered deceitful with 'some

"hidden thing"' within them (Wilson 1995: 216). Wilson (1995: 218) notes how optical instruments vacillated between being magic and truth, obscuring or revealing. Berkeley, Wilson observes, following Locke, would still maintain that if God intended Man to see these things he would have been endowed to do so unaided (Wilson 1995: 244). According to Berkeley the microscope merely enabled the 'empty amusement of seeing' (Wilson 1995: 248). Ultimately, Wilson (1995: 230–231) argues that the lack of an appropriate analogy made it difficult to assimilate to established forms of knowledge what it was precisely that people saw under the microscope, a sentiment, as Wilson notes, that was echoed in Locke's own ambivalence towards the microscope (see Locke 1975: 303).

A suggestion as to why this failure should be might be derived from Wilson's (1995: 212) observation that the sort of 'physico-theology' based on the observations of the microscope represented a form of 'scientific kitsch':

> We are apt to find in this attention to small objects a kind of bourgeois triviality, like that of a collection of knickknacks on a mantelpiece, which the ubiquitous cabinet in a sense really was. The expansive rhetoric of the spectacle and harmony of nature produces the impression of a scientific kitsch.

The idea of 'scientific kitsch' and the problem of an appropriate analogy can be fruitfully examined, Wilson suggests, in relation to the career of the natural historian and microscopist Swammerdam who, being one of the pioneers of microscopy, abandoned his science under the influence of the protestant quietist and mystic Antonia Bourignon. Boerhave notes regarding Swammerdam as Wilson observes (cited in Wilson 1995: 188):

> that his treatise of Bees was formed amidst a thousand torments and agonies of heart and mind, and self-reproaches, natural to a mind full of devotion and piety. On one hand his genius urged him to examine the miracles of the great Creator in his natural productions, whilst on the other, the love of that same all-perfect Being deeply rooted his heart, struggled hard to persuade him that God alone, and not his creatures, was worthy of his researches, love and attention.

The writings of Swammerdam, Wilson identifies, and his struggles with Protestant faith offer a specific insight into the dilemmas of the divine, proximity, new technologies and emerging science and the regulation of human attachments and appropriate material registers and sensorial engagements. The activities of the microscopist were analogous to the activities of the explorer; both were forms of cultural contact accompanied by profound anxieties over the appropriate relation between people and things.

For Swammerdam (1758: 2) the microscope represented a voyage into new territories with new animal societies from which we can learn moral lessons, such as those from the activities of ants, which: 'will contribute to a clear and distinct perception of the irregular and various appearances of insects; supplying the place of a pencil, and representing as it were, their true colours, the variations of them; setting each in a just light and in their native dress'.

At the beginning of Herman Boerhaave's biography of John Swammerdam he describes Swammerdam's house (1758: i):

> And indeed his collection was very magnificent, his house being full of animals, insects especially, vegetables, and fossils, though without the least confusion, every thing being disposed in its proper place and order. But the chief ornaments of his museum were curiosities from both the Indies, and particularly the porcelain of China and Japan.

It was precisely under these conditions that this sort of early scientific bourgeois 'kitsch' could be observed (Wilson 1995).

Under the influence of Antonia Bourignon, Wilson observes, Swammerdam plunged into a spiritual crisis, torn between serving God directly or observing God's work in his creatures, a conflict that focused on serving God directly or the creatures directly. After his book on bees, he chose God and tried to sell his considerable and valuable collection to provide him with an income to retreat from the world in order to pursue pure devotion to God rather than to His creatures. He had no luck selling. The collection after his death was widely dispersed, sold off piecemeal and basically lost (Wilson 1995).

The intense seductive fascination with the microscopic world, with its intense life and activity was almost 'libertine' in Wilson's description and as evidenced by Swammerdam's own anguish. It was a temptation that distracted from the service to God. The writings of Antonia Bourignon (1696) attest to this distraction and the dangers of idolatry that it represented. In her 16th conversation she argues for the distractions that the material world represent for the contemplation of God:

> All these Evils and Dangers would befall him because of the Folly he had committed in stopping among these Flowers and Fruits. If had only look'd on them at a distance, smell'd them as he past along, or pull'd an Apple for his Thirft, this had not retarded his Journey; but might have made it more Light by the Smell of the Flowers, and the Refreshment of the Apple.
>
> (Bourignon 1696: 87)

She does not follow a radical dualist line which would assert that these distractions are in and of themselves diabolical:

> Not all these things are evil in themselves; but because of the Infirmity of our Nature which has not found the Art of possessing them in God; and while we possess them in themselves, they are assuredly evil and hurtful to our Soul, hindering it from Communion with God, and from attaining to the End for which it was created.
>
> (Bourignon 1696: 87)

But she advises that:

> We may indeed look upon all these earthly things at a Distance, even with Contentment, and taste them according as we have need of them, for they are created for us, while we receive them with Thanksgiving; but we ought never to fasten our Affections on them, else we shall never arrive at the LOVE OF GOD; For our heart cannot be divided between two so different Objects.
>
> (Bourignon 1696: 88)

In Bourignon's 17th conversation she argues further: 'But we must labour to remove the Hindrances which our Viscious Affections do give him' (Bourignon 1696: 94). And furthermore: 'So much the more as we are disengag'd, so much the more shall we be united unto God' (Bourignon 1696: 95). She reiterates the inherent instability of the material, echoing Locke's concerns and the material's tendency towards multiple registers harkening back to Isaiah 44: 'The Devil has likewise so many Holds, when he finds us wedded to anything. He makes Mercury of every Wood. But when we are free of Matter and adhere to God only, he cannot Hold of us on any Side' (Bourignon 1696: 95).

It is under this influence, as Wilson notes, that Swammerdam's discussion of the day fly in the 'Bible of Nature' served as 'a religious lesson in transitoriness and quietism' (Wilson 1995: 189). Microscopy harboured many temptations that could not be adequately socialized, into the needs of commercial activity and its broader social uses, or the prevailing proto-science of the time (see Hacking 1983; Wilson 1995 and also the sceptical assessments of Locke 1975: 303, where the value of microscopy could only be affirmed by 'Market and Exchange'). The case of the microscopist Swammerdam indicates some of the conflicts arising with the way in which a new technology configures a material register and attendant sensorium. A most emphatically ocularcentric sensorium emerges within this shift of register produced within microscopy. Along with this comes

a profound anxiety over the appropriate nature of human attachments, as the case of Swammerdam illustrates.

Conclusion

The various 'physics' of the Reformers reworked understanding of the material and the immaterial in their efforts to establish new forms of religious and social life. As with the Catholic tradition of the 'Instruction' of Loyola, a new form of individuation emerged – immaterial – produced within the semiotic and spatial surroundings facilitated by the camera obscura (Crary; Boulnois). In another fashion the emphasis on the Decalogue and Isiaah 44 introduced a materials-based apprehension of the world, dematerializing it into underlying socially useful homogenous substances, such as wood rendering things radically and more widely available for appropriation. The dematerializing effects of the Decalogue and Isaiah 44 served to break down the world to be radically incorporated into various projects. The terms by which iconoclastic violence proceeded testify to the terms by which Isaiah 44 enabled the radical reworking of the material world to facilitate social justice and create new forms of social and religious life (consider also Bois and Krauss (1997) on the productive work of the 'formless'). As Locke would later describe, these substances are the product of social convention, the contingent material commitments underpinning social life. Thus the semiotic assertion of 'woodenness' broke down threatening 'idols' allowing them to be made available for other uses as a consequence of that semiotic assertion of a wider substance-based qualisign. This had profound material effects, as witnessed by the forms of iconoclastic acts that took place and reconfigured the world according to the imperatives of this semiotic assertion of common substance and the new forms of social and material life it thereby enabled. Such a semiotic refigured in very palpable material ways and asserted a new relationship between the material and immaterial and the forms of social life enabled therein. The various 'physics' put forward by the Reformers (Wandel) affirmed the material as the way in which the divine is apprehended and instantiated, referring back to St. John of Damascus' Byzantine-era defence of icons: God was made known and apprehendable materially through Christ; hence the divine in the Christian tradition was always to be apprehended in material terms.

The rise of new ocular technologies such as the camera obscura and microscopy placed a new significance on the material as the means by which to apprehend the divine – hence the concept of empirically observed nature as the second 'Book' after the Bible (Shapin 1996). But

these new technologies facilitated a new subjectivity familiar to us as the highly individuated dematerialized Cartesian subject, that at once produced the ontologically immaterial 'spirit'/'subject' at the centre of the vanishing point of technical perspective drawing and the camera obscura. A representational shift facilitated an ontological shift that produced the Cartesian subject and the disciplined universal Christian of the 'Instructions' of Loyola within a radically new understanding of the sensorium which laid increasing emphasis on sight. Thus the material world could be refigured and built upwards to facilitate immaterial 'spirit' and downwards to effect 'substances' available for novel uses and social projects. The curio cabinet of Stafford (2001) and the 'Cartesian table' described by Crary (1992: 63) spatially and physically broke things down into 'substances' and other underlying categories such as scale, colour, etc., making them available to be re-categorized in radically new ways distinct from their earlier 'natural' settings (see also Bois and Krauss 1997). A semiotic sleight of hand, akin to the magical effects of analogy (Taussig 1993) instantiates a notion of material substance and durability (e.g. everything that is mineral, everything that is animal, etc.). These breakdowns created different registers in semiotic and spatial terms with profound consequences for the means by which the world could be apprehended and people and social relations made. As Locke was to show (and Whitehead later) such substances are arbitrary, girding our social conventions to which we have commitments.

Starting in the next chapter with the iconoclastic revolutionary Karlstadt, we will consider another: Vladimir Ilyich Lenin, in conversation with the German revolutionary Klara Zetkin. Lenin was clearly aware of Karlstadt's legacy when considering the revolutionary moment that was the Russian Revolution and the establishment of another socialist as opposed to Christian *ecumene* (Pálsson 1995: 31) on the basis of new technological innovations, namely industrialism and the spread of worldwide communism. Here, industrialization and modernism facilitated a new understanding of the individual in relation to technological innovations and with it a new consideration of the relation of the material to the immaterial and a new sensorium within which to facilitate propinquinty in the service of new forms of social life.

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Notes

1 'God remains separate, invisible and unthinkable; only divine revelation can bring knowledge of Him. But sinful man cannot bear the infinite distance separating him from God . . . ' (Boulnois 2008: 422).
2 'Man is the animal that never thinks without images' (Boulnois 2008: 414).
3 Michalski (1993: 76) notes how Polish Calvinists at Secemin in 1556 suggested that 'noble patrons of churches to act slowly and to prepare simple folk gradually for the removal of images. First, the altars were to be closed and the images covered with sheets; and then, without haste, they were to be withdrawn from the main nave and concealed in the less open spaces of the church. In other cases the process began by turning the face of the image to the wall [. . .] In Polish sources we read about persons who turned images upside-down and face to the wall "in the manner of heretics"'.
4 As Wandel observes, St. John of Damascus articulated the profound nature of the Christian shift in the way the material world was understood – as God manifested himself in material form as Christ, the relation between the material world and divinity was forever altered and represented a radical rupture with Judaism and the rest of antiquity. 'God spoke through matter to Man' (Wandel 1994: 35).
5 As Christin notes further 'Moreover, the seizure and the melting down of church treasures seem to reflect the same imperturbable rationality, the same disenchantment of the world: chalices and reliquaries are gold from which money can be coined, grilles and bells are metal from which cannonballs can be made, images are nothing but wood and stone, the Host is dough that can be eaten, relics are bones that can be thrown to the dogs. Finally, public tenders, auctions and bookkeeping demonstrate the authorities' constant concern to rein in iconoclasm's revolutionary potential' (Christin 1994: 221).
6 Isaiah 44

> 9, They that make a graven image are all of them vanity; and their delectable things shall not profit; and they are their own witnesses; they see not, nor know; that they may be ashamed.
>
> 10, Who hath formed a god, or molten a graven image that is profitable for nothing?
>
> 11, Behold, all his fellows shall be ashamed: and the workmen, they are of men: let them all be gathered together, let them stand up; yet they shall fear, and they shall be ashamed together.
>
> 12, The smith with the tongs worketh in the coals, and fashioneth it with hammers, and workth it with the strength of his arms: yea, he is hungry, and his strength faileth: he drinketh no water, and is faint.
>
> 13, The carpenter strecheth out his rule; he marketh it out with a line; he fitteth it with planes, and he marketh it out with the compass, and maketh it after the figure of a man, according to the beauty of a man; that it may remain in the house.
>
> 14, He hewith him down cedars, and taketh the cypress and the oak, which he strengtheneth for himself among the trees of the forest: he planteth an ash, and the rain doth nourish it.

15, Then shall it be for a man to burn: or he will take thereof, and warm himself; yea he kindleth it, and baketh bread; yea, he maketh a god, and worshippeth it; he maketh it a graven image, and falleth down thereto.

16, He burnethe part thereof in the fire; with part thereof he eateth flesh; he roasteth roast, and is satisfied: yea, he warmeth himself and saith, Aha, I am warm, I have seen the fire:

17, And the residue thereof he maketh a god, even his graven image: he falleth down unto it, and worshippeth it, and prayeth unto it, and saith, Deliver me; for thou art my god.

18, They have not known nor understood: for he hath shut their eyes, that they cannot see; and their hearts, that they cannot understand.

19, And none considereth in his heart, neither is there knowledge nor understanding to say, I have burned part of it in the fire; yea, also I have baked bread upon the coals thereof; I have roasted flesh and eaten it: and shall I make the residue thereof an abomination? shall I fall down to the stock of a tree?

20 He feedeth on ashes: a deceived heart hath turned him aside, that he cannot deliver his soul, nor say, Is there not a lie in my right hand?

(The Holy Bible (1831: 532–534), Boston: Hilliard, Gray, Little *et al.*)

7 Cummings notes (2002: 200) that at times the heretic was burned along with the book, both were treated the same and ostensibly indistinguishable from one another. Cummings observes how Erasmus in this vein noted further that 'soon all the books of Luther will be cooked'.

8 Locke's own interest microscopy was ambivalent in his discussion of 'Microscopical eyes' when regarding substance (Locke 1975: 303). With further reference to microscopy and with relevance to other scientific advances that would alter the capacity of the human senses, Locke observes: 'Bet were our Senses alter'd, and made much quick and acuter, the appearance and outward Scheme of things would have quite another Face to us; and I am apt to think, would be inconsistent with our Being, or at least well-being in the part of the Universe we inhabit' (Locke 1975: 302).

5 Leninism, immateriality and modernity

In her *Reminiscences of Lenin* (1934; written in 1924 after Lenin's death) the German Marxist revolutionary Clara Zetkin recounts how she went to supper one day at Lenin's apartments in the Kremlin. In the section 'on Culture' she reports how Lenin denounced the avant-garde and its iconoclasm. Lenin's ambivalence regarding the avant-garde has long been noted (see Buck-Morrs 2002), along with the subsequent tension between the state and arts practices in the Soviet period and in particular the controversial issues surrounding 'de-artefactualization' (*razveschestevlenie*) and the problematic status of material culture, commodity fetishism and social reform. Lenin tells Zetkin in a rather frustrated tone: 'It seems to me that we too have our Dr. Karlstadt. We are much too much "Iconoclasts"' (Zetkin 1934: 12). The offhand comment is remarkable on many counts. First, in terms of Lenin's own intimate understanding of the details of the historical circumstances of the Protestant Reformation and by analogy of Lenin's implicit positioning in the present. Lenin places himself in the position of a frustrated Martin Luther having to rein in the Dr. Karlstadts of his day, working within the Soviet artistic avant-garde as it concerns the reworking of the material world and social relations it would enable.

Soviet immateriality

If Protestant reformers were concerned with the material culture of the church and the problem of inappropriate attachments to that material culture and the problem of idolatry for the constitution of a Christian subject, Marxist revolutionaries of the avant-garde in the early Soviet Union had their sights set not just on a restricted body of material culture like those associated with the Catholic Church; rather their sights were set on the entire of body of material culture associated with the preceding capitalist epoch. Everything from neckties and lipstick to buildings

and whole cities were problematic and needed to be reconsidered. These concerns found expression in the theorizing, design and architectural work of avant-garde practitioners within the general question of how to constitute an 'objectless' world. If the entire body of received material culture tout court was seen as the site of inappropriate petit-bourgeois fetishistic attachment inhibiting the construction of socialism, the 'object' per se needed to be reconsidered in its entirety; hence the preoccupation with 'objectlessness' to produce this new body of material culture that would be devoid of a new fetishism, and in particular the fetishism of the commodity characteristic of capitalist society before the socialist revolution.

In reconsidering the status of the object under the conditions of industrializing socialism, one of the key concepts in this regard was the notion of the '*ustanovka*', as argued by Maria Gough (2005). The '*ustanovka*' (or, as it can be loosely translated, the 'installation') was a relational nexus understood within the idiom of industrialized manufacturing and labouring which would reconfigure understandings of materiality and their social relations within revolutionary society and in particular the problematic status of the object and the fetish of the commodity.

Gough (2005: 219) notes that the Soviet theoretician, 'Tarabukhin credits Kushner with the introduction of the concept of the "installation" along with two other related expressions, the "de-corporealization" (*razveshchestvleniia*) and "de-objectification" (*obespredmechivaniia*) of contemporary culture'. In this configuration, the object takes on a new status that challenges its traditional one (as a fetish producing inappropriate attachments, misrecognizing the relations of capitalist production and inequality that produced it) and sees it 'de-objectified' as a result of its position and relevance within a new organization of labour and consumption. These concepts were to have an enduring legacy throughout the Soviet period and within Marxist critical analyses of the problematic status of the object and the material culture of socialism and subsequent critiques of consumer society in general in both socialist and capitalist contexts.

Gough (2005: 121) cites avant-garde artists such as El Lissitsky, and his foreword to Nasci (1924), where he states: 'Every form is the frozen instantaneous picture of a process. Thus a work is a stopping-place on the road of becoming and not a fixed goal' (consider Bourignon earlier). The object per se, in a manner reminiscent of 'stoppage' following Alfred Gell, does not exist as a fixed object per se but merely as a stoppage within a body of material flows in what in Gellian terms can be understood as a 'distributed' object or, as Mario Carpo (2011) would understand it, an 'objectile', following Deleuze. Under the conditions of industrialization and socialist revolution such an 'object' as 'stoppage' disappears.

Furthermore, Gough (2005: 146), with reference to Tarabukhin, cites three reasons for the disappearance of the object under the conditions of early Soviet socialism: 'First, the integral object "disappears" because of the way in which mass production is organized: "Various production processes are necessarily involved in the manufacture of any finished product. The object [thus] loses any individualization in the process of production"'. She notes further (Gough 2005:147):

> A second cause of the object's disappearance results from the profound impact mass production has upon traditional patterns of consumption. Its seemingly infinite capacity to reproduce in standardized form factors into the object a new principle – that of rapid obsolescence – by which the object loses altogether any resistance to temporal finitude that it may once have had:
>
> > Mass production cancels out the [hitherto established] conception of the object; it brings about an extreme reduction of the period of its utilization to a single act of consumption. Transformed from an object intended for a significant period of usage into an object . . . produced for single use only, transformed from solid 'elephant' into an 'ephemera', the object loses its fundamental character.
> >
> > (quoting Tarabukhin 1923: 30)

According to Gough (2005: 147), referring to Tarabukhin: 'The third cause of the object's vanishing provides the key to Tarabukhin's problematization of the productivist object:

> Many modern products are no longer objects as such. Instead, they are complexes of a number of objects that are linked inseparably in the process of consumption and thereby form a system, or they represent a kind of noncorporeal energy. Such is, for example, the use of electrical energy, which is itself an intricate system of installations from which is derived a number of 'utilities' ['*poleznostei*'] in the form of light, heat, moving force, and so forth. Thus we arrive at a new concept, unknown in the conditions of less-developed material culture – namely, that of the 'installations' ['*ustanovok*'].
>
> (Tarabukhin 1923: 30)

Gough (2005: 147) writes further in relation to early twentieth-century Soviet theorists that anticipated the later notion of the 'assemblage' from actor network theory:

> In the material culture of the future, Tarabukhin prophecies, the 'modern product' will take the form not of an integral object, but

> of an installation – a system or network of interrelated components. The precise form the productivist 'installation' will take – whether apparatus, device, mechanism or plant (the Russian word *ustanovka* encompasses all of these) – will be less important than the relationality of its functioning.

Thus Gough (2005: 148) notes how other avant-garde theorists of the era, such as Kushner, call for the destruction of the 'object' per se in favour of the regulation of the flows constituting the 'stoppages' that emerge rather than fixed 'objects'. Gough (2005: 149) observes that for avant-garde theorists such as Tarabukhin: 'non-objectivity – as dematerializing process rather than integral product – encapsulates the new art of production sufficiently to be considered the *Urphänomen* of contemporary culture'. In short, a new understanding of the terms of propinquity are here proposed, much like in earlier Reformation contexts discussed earlier which attempt to reconstitute the relations objects have with one another within a particular configuration of the sensorium and the kinds of relationalities produced therein.

Soviet objectlessness

Kiaer (1997) discusses in more explicit terms how Soviet avant-garde theoreticians of the 1920s sought to merge artistic practice with manufacturing, obviating the dualisms produced by the separation of design and production. Kiaer notes how the early Soviet theoretician Arvatov, with others, argued for a 'productivist' understanding of artistic production where artists were directly integrated into industrial production – conflating the distance between the designer and the manufacturer. She considers how Arvatov argued for a 'monist' understanding of material culture that obviated prevailing dualisms (Kiaer 1997: 110). Arvatov called for the creation of a system of socialist production where user and producer were one in the creation of a socialist object: 'a return to socially harmonious structures of making and using the object' (Kiaer 1997: 116). Kiaer (2005: 60) notes how Leon Trotsky and 'His attack on *byt* [daily-life] is an attack on its sheer material weight, point to the way that, in the evocative words of Maurice Blanchot, the everyday "tends unendingly to weigh down into things"'. Through the elimination of possessions Kiaer further cites Trotsky that the prevailing oppressive contradictions of social life would be overcome: '"Only then", Trotsky writes, "will the relation of husband and wife be freed of everything external, foreign, binding, incidental. The one will cease oppressing the other"' (Kiaer 2005: 60). Following Trotsky, Kiaer (2005: 63) observes that '"human" spiritual relations become possible

only with the elimination of matter – which, in his account, is persistently tied to the domestic sphere occupied by women, and therefore understood as feminine', and echoes anti-materialist Protestant thinkers such as Bourginon (1996) discussed earlier.

Kiaer (2005: 70) further invokes Arvatov:

> Arvatov's 'monism of things' takes Marx's materialism in a more literal direction, by imagining that not only the 'object' in the philosophical sense – in which there is a slippage between material and ideal, matter and spirit – but the 'thing' in the material sense will once again have 'volition' because of its connection to 'sensuous human activity'.

Constructivist architects such as Moisei Ginzburg worked towards creating such a dematerialized setting in projects such as his Narkomfin Communal House (Buchli 1999) (see Figure 5.1). Here glass, metal and white surfaces created a setting with the material concentration of resources that would suggest the evanescence of the material. The structure is suspended on pilotis (columns) hovering above the ground and amidst the trees suggested the process by which the material would evanescence and the contradictions of gender and class would be obviated into a virtually seamless communist realm of integrated nature (see Figure 5.2). Projects such as the Narkomfin Communal House suggested this integrated realm based on the industrialization of housing, materials and labour – and served as a utopian fragment of the kinds of new socialist linear cities envisioned by the project's client, the avant-garde planner and Peoples' Commissar of Finance Miliutin, and others. Such utopian plans would cover the territory of the Soviet Union through a limitless and expanding electrified network, allowing the free and frictionless movement of people within this grid and thus overcoming all the contradictions of pre-revolutionary society. The capitalist-produced distinction between town and country would be overcome and even the distinction between human cultures and nature, and this vision would eventually spread over the world, as signalled in Dziga Vertov's masterwork *One Sixth of the World*, where national boundaries would be eliminated with five-sixths of the planet yet to come under the sway of the Communist Revolution, just as can be seen in Gustav Klutsi's famous image of Lenin astride the globe entitled 'The Electrification of the Entire Country' (1920, in Dickerman 1996: 77), which would imply the eventual global revolution of socialism and technology.

Such a setting was imagined to produce an environment where people would not attach to objects and be susceptible to the problems of commodity fetishism and petit-bourgeois consciousness that would prevent

Figure 5.1 Narkomfin communal house. From V. Buchli, 1998, "Moisei Ginaburg's Narkomfin Communal House in Moscow", *Journal of the Society of Architectural Historians,* 57: 2, June 1998, pp. 160–181.

the realization of the socialist collective. The specific materials used and their configuration literally produced a detachment from the material world to produce instead an attachment to this wider socialist collective. The modernist materialities, of transparency, flexibility, hygiene, whiteness and reflective metals produced this detachment, according to the criteria described by Hammer and Lodder (2004) discussed earlier (see also Hill 2006).

Kiaer (1997: 116) notes that Arvatov also shared the common fascination with electricity:

> Only under socialism will the object be animated by the living force of nature; socialism must foster the forms of technology that unite nature with production and with everyday life. As an example he names electricity, a form of pure nature that through technology 'penetrates society and becomes *byt* [daily-life]'.

Kiaer (1997: 116–117) then notes further in reference to Arvatov, and with great prescience at the time of her writing: 'This organic human connection was never realized in socialist terms by the systems he names . . . but it is being realized today in the Internet – a proto-socialist object if there ever was one'.

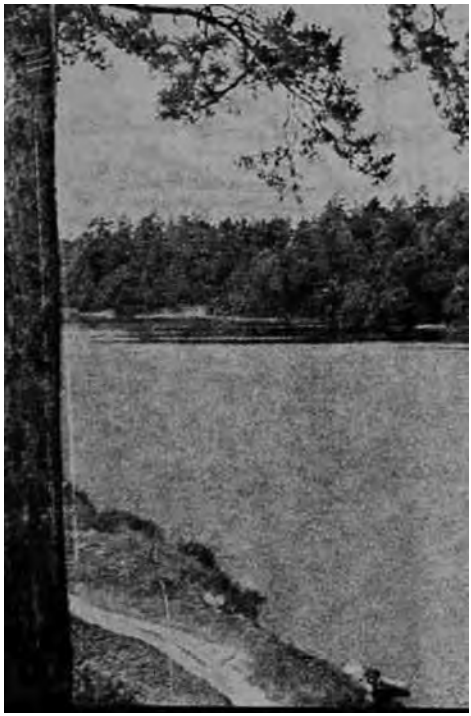

Figure 5.2 The post-artefactual city. From Gradov, G. A. (1968: 184). Gorod i Byt, Moscow: Literatury po Stroitel'stvu.

Post-war objectlessness

This preoccupation with electricity carried into the post-war years, and emergent cybernetics suggested a new engagement with the immaterial and the socialist conditions for constituting the material world. Kiaer's observation concerning the prescience of theoreticians of the 1920s regarding the internet found an earlier manifestation in the guise of the DIM (Domestic Information Machine) developed between 1969 and 1974 (see Cubbin 2014) (see Figure 5.3).

Thomas Cubbin (2014: 10) cites a VNIITE report of 1969 that 'by 2017 "every newspaper subscriber will have a special piece of apparatus in their home which will print an edition of the newspaper at the touch of a button"'. The report's author expanded upon the possibilities. Cubbin (2014: 10) cites Liubimova:

> It is fully possibly that such a communications system could exist not only in conjunction with publishers of newspapers and magazines, but with scientific libraries, archives, museums, repositories of musical recordings and films etc. In an ideal situation, man could almost receive all necessary information in the form of a text on paper, on a screen or as sound, sitting at his workstation and without leaving home . . . Some information which will be continually required for a certain type of work could be ordered in the form of a card catalogue and stored at home, and what remains would be received according to necessity.

Cubbin (2014: 12) notes that 'a prototype . . . was exhibited . . . during the 24th Communist Party Congress in 1971' and observes (Cubbin

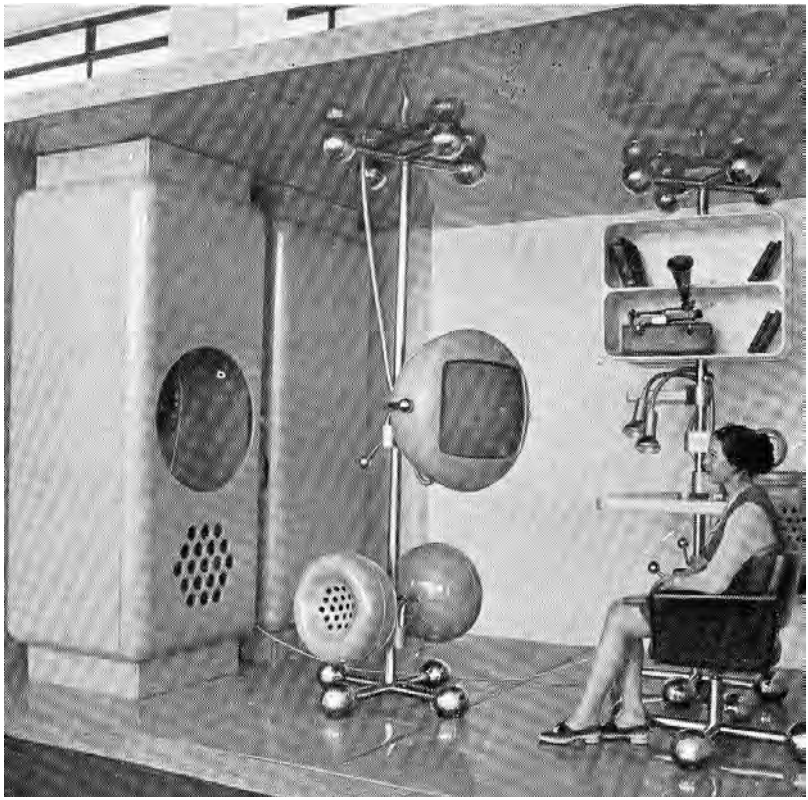

Figure 5.3 DIM (Domestic Information Machine). Arkhitektura SSSR, March 1972. With the permission of Vladimir Paperny.

2014: 13) how the DIM was envisioned as an important feature of the post-war theoretician Riabushin's 'domestic theatre', which was to bring about the de-artefactualization of the domestic sphere (see also Riabushin 1976). Cubbin comments on how de-artefactualization was initiated through certain transformable furniture designs (see also Buchli 2002). Theorists such as Kantor imagined such transformable furniture mass-produced within the Soviet Union could act as precursors to the creation of a de-artefactualized living sphere in Soviet society.

Cubbin (2014: 13) observes how the writings of the philosopher Karl Kantor influenced theoreticians of the post-war period such as Riabushin and his concept of the 'domestic theatre' and 'de-artefactualization'. Specifically, Cubbin notes how Kantor revived the writings of Boris Kushner from the 1920s and his notion of the '*ustanovka*', as discussed previously by Gough (2005). Cubbin (2014: 13) describes this as 'an imagined set of material relations after the "death of objects", consisting of a unified system of equipment that would be able to fulfill human needs by changing form in time and space'. Cubbin (2014: 13) considers that 'the stabilized meaning of objects that perform a single function would disappear' as it was more prosaically evinced in the design of transformable furniture (see also Buchli 2002). Cubbin furthermore relates to the problematic status of these new emerging objects and their incipient evanescence and cites Kantor: '"The multi-functional artefact ceases to be an artefact," he explained, because it "loses the continuity of its static composition"' (Cubbin 2014: 14).

Cubbin (2014: 24) notes the ambivalence commonly held by Soviet theoreticians towards consumption and the domestic sphere, but more precisely that the seeming valorization of the individual domestic sphere was not a rejection of the collective at the heart of socialist morality but, following Riabushin, 'time spent alone is a psychological necessity rather than a dereliction of duty'. The rationalization of taste and production of material goods ensured the stability of this new subjectivity – individually formed according to stable collective values sustained by the technical and material infrastructure of a socialist cybernetics. Thus – citing Andres Kurg – Cubbin (2014: 24; see also Kurg 2011) describes a 'redefinition of subjectivity':

> By defining the microclimate of the domestic interior, DIM would similarly enable a degree of autonomous subjectivity that would nonetheless continue to be susceptible to forces emanating from outside.
>
> (Cubbin 2014: 24-25)

Thus Cubbin (2014: 24–25) concludes: 'For the social groups emerging during the STR [Scientific Technological Revolution], an interior defined by immaterial electronic pulses could theoretically free them from the physical objects that define an individual's social status through practices of consumption and display' – and one might add liberate them from the vagaries of individual consumption and discipline them within the cybernetically mediated and stabilized terms of socialist rationality and morality.

Thus, as Kurg (2011) and Cubbin (2014) observe, a new socialist subjectivity emerges within the new terms of propinquity that the '*ustanovka*' in its pre- and post-war configurations suggest – now stabilized and universalized within the socialist sphere on an unprecedented scale. This is a socialist subjectivity that, though highly individualized, is nonetheless socialized within a wider socialist collective by virtue of the dematerialization of daily life. The immaterial here – as produced under the particular conditions of Soviet socialism – secures this subjectivity through its productive effects. Again the scale at which such a dematerialization takes place is inherently bodily in reference to the individual in his/her domestic sphere and the immediate embodied uses a given artefact suggests at the times of its fleeting emergence within the 'Zhilische-teatr' (domestic theatre) described by Riabushin. The terms of post-war socialist immateriality secure the moral authenticity of a newly emergent and universalized socialist subject that is forged within the utopian cybernetic realm of socialist consumerist abundance.

The dematerialization of the domestic sphere which saw the heavy centripetal forces of Stalinist domesticity broken up by the newly centrifugal zones of post-war housing was in actual fact realized many times over across the Soviet Union. This was further expanded through the creation of 'micro-districts', where the traditional functions of the domestic hearth, in terms of food provisioning, laundry, childcare etc. would be dissipated outwards into local services outside the home, echoing the constructivists of the 1920s (Cubbin 2014: 25; see also Buchli 1999).

The DIM reconfigured the terms of propinquity at the heart of post-war socialist immateriality (Cubbin 2014). As Cubbin notes:

> It links the individual to the collective, whilst encouraging time spent alone at home, engaged in intellectual pursuits. It provides a semantic presence within the home that was intended to replace the material structures of collective life. Physical presence in the collective would no longer be needed, it was explained, because electronic communications

> create the 'effect of presence' as a substitute (Riabushin *et al.* 1972: 51). It expresses a more dynamic concept of space where the 'social' corresponds to a lesser degree with the 'spatial'.
>
> (Cubbin 2014: 27–28)

The DIM is an early version of an internet-based domestic computer where information would replace the traditional material conditions of the home: 'It was argued that equipment was needed that could save time spent searching for text, audio, and video materials and free the mind from holding unnecessary information' (Cubbin 2014: 10).

To sum up this post-war setting: '"De-artefactualization" in the full sense of the word denotes the disappearance of artefacts from the system of social relations, when the relations between artefacts will be entirely displaced by the relations between people' (Travin 1979: 99 cited in Buchli 1999: 150).

In such a setting, multiple-use goods would replace single-use objects. The material conditions of daily life would condense through the organization of new technologies according to socialist principles (like the DIM), such that human society would move towards an increasingly de-materialized artefactual environment towards the creation of a unified and seamless world devoid of dualist contradictions. Humans would exist in an unalienated state with each other and nature, as Travin notes: 'Removing the borders between the artefactual sphere of the household from the true sphere of nature, will become one of the key factors in the conception of the household of the future' (Tarvin 1979: 112, cited in Buchli 1999: 150) (see Figure 5.2).

Under these conditions, with the socialist organization of labour, production and services in the post-war period, things did not have to exist as things but could be delivered at any time as contingencies required, from central points within the socialist economy and thereby realizing the earlier goals of the early socialist Soviet avant-garde. Travin quotes B. Kushner, of the 1920s:

> The collectivisation of consumption will be facilitated not by certain kinds of objects, but by the possibility to replace certain specific and differing objects, continuously changing in their place in space, unavoidable for the different life processes (sleep, work, eating, rest) of human beings. For that we do not need beds, tables, sofas, and chairs to exist as objects.
>
> (quoted in Travin 1979:110; see also Buchli 1999: 151).

Twenty-first-century immateriality

The goal of Soviet socialist technocratic utopian thinkers and planners that 'beds, tables, sofas and chairs' would not need to exist, can be seen in many respects to have been achieved under the conditions of early twenty-first-century cities in the present era of digitization. Fiona Parrott's ethnography of a south London neighbourhood in the early twenty-first century is instructive here. She quotes one of her informants to this effect:

> 'I'm more of a photography person than an object person . . . I've got into the digital camera and I've got all these digital photos – fantastic – I take hundreds of them. That's really the way I've been going. What's a sofa? It's just a thing to sit on. Moving between countries it's so expensive. Go to IKEA to get a sofa!'
>
> (Parrott 2010: 298)

Parrott (2010: 292) observes that 'indeed in a diasporic context all kinds of portable goods and images come to stand for something else that would more commonly be recognised as inalienable, such as land, or the house', and she notes further: 'To a degree, mobility or its possibility has come to constitute the precondition for reinvention and life stage transitions. It seems that certain forms of durability are engendered by flows of people and things' (Parrott 2010: 293). The contemporary ethnographic situation in the first part of the twenty-first century indicates a certain guarded realization of this earlier Soviet ideal for the objectless world. Objects as such do not have to exist; certainly they would appear not to be invested with emotional attachments to the same degree that early twentieth-century Marxian theorists were troubled by. Here, under the conditions of a more diasporic population noted by Parrott (2010), the digitized artefact – namely the photograph – despite being relatively more immaterial and seemingly ephemeral, in fact betrays a certain durability that one might normally associate with the solidly material, in terms of its stability – there at all times and in all places and for that reason more enduring in the way the material might be seen to function in another register, emphasizing solidity and the ability to enable propinquity in another order. Here propinquity is more readily established, more enduring and more stable, through the more 'immaterial' digital file. Under these conditions it might be more worthwhile to consider the problematic status of the artefact under

the conditions of digitization. In particular it is worthwhile to consider here more closely the digitized artefacts of 3-D printing whose technologies emerged from rapid prototyping into what is now direct manufacturing and which realizes in many respects the sorts of 'objectless' worlds imagined by early and mid-twentieth-century Soviet theorists and designers.

Early twenty-first-century objectlessness, digitization, immateriality and transcendence

Mario Carpo (2011) discusses at length the significance of 3-D printing for our understanding of the problematic status of the artefact. He notes with reference to Nelson Goodman that: 'all arts were born autographic – handmade by their authors. Then, some arts became allographic: scripted by their authors in order to be materially executed by others' (Carpo 2011: 16). Echoing the observations of early twentieth-century Soviet theoreticians, Carpo (2011: 33) notes a similar occurrence in terms of the status of the maker and the artefact with reference to 3-D printing: 'This way of operating evokes somehow an ideal state of original, autographical, artisan hand-making, except that in a digitized production chain the primary object of design now is an informational model'. As Carpo's observations suggest, these conditions harken back to the utopian notions of the status of the artefact and its imminent evanescence under the conditions of the socialist organization of labour and production noted earlier by Gough (2005) and Kiaer (1997, 2005).

With reference to Deleuze and Cache, Carpo (2011: 40) invokes the related notion of the 'objectile', which is reminiscent of the unstable object within the conditions of the '*ustanovka*' noted earlier: 'the 'objectile' is not an object but an algorithm – a parametric function which may determine an infinite variety of objects, all different (one for each set of parameters) yet all similar (as the underlying function is the same for all)'. According to Carpo (2011: 91), we can understand Deleuze's 'objectile' in the following way: 'the "objectile", a function that contains an infinite numbers of objects. Each different and individual object eventualizes the mathematical algorithm, or objectile, common to all'. Furthermore, Carpo observes (2011: 45) 'Acting almost like prosthetic extensions of the hands of the artisan, digital design and fabrication tools are creating a high-tech analog of preindustrial artisanal practices'.

Understanding the inherent instability of traditional individual hand-rendered drawings before the novel stabilization offered by print culture, Carpo (2011: 57) argues that Alberti developed an early digital representation of the monuments of Rome:

> Alberti's notion that the perpetuity of a monument would be guaranteed by a sequence of numbers better than the original monument may sound odd. Daily experience suggests that stone and marble are stronger and more resistant to time than parchment or paper.

As Carpo (2011: 78) so astutely notes here, the early digital Albertian representation is more stable than the individual hand-rendered drawing, and, further: 'Contemporary cad-cam technologies have simply obliterated the notational gap that for centuries kept design and construction apart . . . With CAD-CAM technologies, architecture may have finally attained full allographic status', thereby offering the sort of unity earlier imagined by Soviet avant-garde theorists.

Thus the '*ustanovka*' of almost a century earlier is here realized under the conditions of digitization. As Carpo observes:

> Digital tools no longer need to separate the thinker and the making; on the contrary, if pertinently put to use, digital technologies may reunite most of what mechanical technologies have alienated – including the various communities that in the premechanical world were associated with, and dignified, all Things handmade. Bruno Latour recently envisaged a similar shift toward a new Gathering of Things – the knotting, binding, and linking together of a new class of objects and subjects (what Latour calls 'matters of concern').
>
> (Carpo 2011: 119)

Similar to the conditions of the '*ustanovka*', the digitized artefacts suggest an 'objectless' world where the object per se is the least stable entity, which belies the seeming stability of its material form, while the distinctly 'immaterial' file or code is more stable.

In another vein, Blanchette (2011: 1042) explores these themes in relation to the immaterial in terms of the rise of digitization:

> Immateriality, then, is fundamental to the ability of the digital to upend the analog world, the reason why any media that can be digitized or produced digitally will eventually succumb to the logics of digital information and its circulation through electronic networks – an argument powerfully encapsulated by Negroponte's (1995) slogan, 'from atom to bits'.

This state of affairs is however problematic from Blanchette's position, as the immaterial as posited is a misrecognition of the different material scales in which the digital functions. The purported 'immateriality' of

the digital is refuted by the practice of computer forensics (Blanchette 2011: 1045). He refers to Kirschenbaum's concept of a 'forensic materiality' (Blanchette 2011: 1045) – one that is materially engaged with at the microscopic scale, but nonetheless eminently material. Similarly, in addition to the material conditions of storage, transmission involves the complicated macro-level material networks and material capacities of cables and fibre-optics (Blanchette 2011: 1052). Blanchette (2011: 1045) cites Kirschenbaum directly to demonstrate this particular instance of produced immateriality: 'computers are unique in the history of writing technologies in that they present a premeditated material environment built and engineered to propagate an illusion of immateriality'.

This 'illusory immateriality' is not unlike Carsten and Hugh-Jones' (1995: 8) notion of the house as an 'illusory objectification'. Both understandings of the 'illusory' are inherently productive socially. This is an 'illusory immateriality' (paraphrasing Blanchette's use of Kirshchenbaum) that girds the productive dualisms underpinning our digitized societies. Blanchette (2011: 1044) observes: 'For example, Drucker (2009a) notes "the stripping away of material information when a document is stored in binary form is not a move from material to immaterial form, but from one material condition to another" (p. 147)'.

Citing Knoepsel and Zhu (2008), Blanchette asserts that this material/immaterial dualism is a vestige of the Cartesian mind/body split and posits instead

> a wide spectrum of materiality activated by a hierarchy of codes that move from 'lower' machine code to 'higher' readable computer languages and to codes in general (structural, legislative, social, cultural etc.). Each level of code engages natural language and the physical world in different ways, varying from the shifting voltage of computer circuits to our everyday activity. Altogether, the hierarchy of codes constructs a field of diverse materiality that is continuous and interconnected.
>
> (Blanchette 2011: 1044–1045)

Blanchette argues for the material basis of the principle of 'modularity' which governs the interaction of hardware and software: 'modularity also reduces system complexity by division of labor: modules can be assigned to different teams, each module small enough to be fully comprehended by a single individual (Blaauw & Brooks, 1997)' (Blanchette 2011: 1046). Thus 'illusory immateriality' is here produced at the scale of the individual human being – echoing Hammer and Lodder's (2004) argument regarding the production of the immaterial at this inherently embodied individual scale, within which the 'spectre' of the human body is always

present. In short, one can see this as a more orderly anaphoric chain of associations (see Buchli 2013: 14–17) or a more orderly series of 'transductions', following Murphy (2006), that allow our digitized worlds to cohere and function.

As will be discussed here, the case of the 3-D printed gun demonstrates that when the US government then places pressure on Defense Distributed – the author of the .stl (standard triangulation language) file of the gun – it does this in such a way as to undo this 'illusory immateriality' of freely circulating infinitely printed artefacts and assert its sovereignty on the material and on the entire chain of 'lower' to 'higher' codes within the 'field of diverse materiality that is continuous and interconnected' (Knoepsel and Zhu cited in Blanchette 2011: 1044–1045). The state in its capacity asserts the 'mere' materiality of the digital economy in an act of translational (Silverstein 2003) power – as effective as the iconoclasm characterizing Isaiah 44, where the immaterial and divine is rendered or translated as mere 'wood' and as such subject to a different and competing order of sovereign power. The material as particular site of engagement has a special place within the Western Christian tradition, in accordance with St. John of Damascus' observation that the innovation of Christianity is the rendering of the divine material in the figure of Christ. Because of this, the material is an agonistic site of contention.

Isaiah provides an early insight into the revolutionary and productive terms by which the reworking of these 'lower' and 'higher' materialities (following Knoepsel and Zhu in Blanchette 2011: 1044–1045) work (consider also Bois and Krauss 1997). It asserts a view of substance that then produces an incorrigible understanding of the divine. Thus, reducing the idol in iconoclastic fashion – translating it – to mere wood, makes it available to the multiple uses that the substance wood is amenable to – the assertion of this common substance, following Locke (1975), is an ideological operation (it could be other than wood, but it is not (consider Bois and Krauss 1997)). Wood is what enables it to act in a specific way within a radically changed field, from idol to things wooden and their multiple uses, and with it a critical intervention within social practices. Following Locke (1975), this action at once establishes the specific incorrigible nature of the divine, and also a new field of substance and social action (to be used as kindling, etc.) – or, as the example of the 3-D printed gun suggests, along with Blanchette's (2011) observations, the 'higher' transcendent notion of the immaterial as opposed to the 'lower' orders of materiality.

What theoreticians observe as the inherent and irreducible nature of the material is an observation regarding its ability to be made available for other purposes. However, this is not a metaphysical statement, or a guarantee, but a statement of the ability of an operation to effect a specific material register to enable contingent forms of social action. That pre-existing

commitments should stabilize something in terms of its thingness in terms of 'bundling' (following Keane) or recalcitrance is a social effect of these commitments with a given register or set of registers. Other registers might be possible, but if they are not socially efficacious they are of not much use 'in this part of the Universe, which we inhabit' (Locke 1975: 302). The different terms of propinquity are merely an aspect of how one might understand the dynamics of many different registers.

It is the case that 'thingness' and 'the image' are concerns at the heart of the Western tradition, within which the study of material culture is firmly enmeshed. There is no reason to think this commitment should change much more following Rouse (2002); the sentence, to paraphrase Whitehead (1978), has already been begun and must be finished. New technologies such as STM imaging discussed earlier and 3-D printing and its controversies are engaged in an age-old renegotiation of the material registers by which social life is enabled, each innovation offering new material terms with which to refashion the social and produce new forms of life.

Thus the immaterial produces the effect of transcendence (or immanence), such as a universal body and ultimately incorrigible body that allows our social worlds, through its productive dualisms, to cohere (one should consider here the spectral body implicit in modularity, according to Blanchette 2011). The clue to this is the distinct ways materially that the immaterial is produced which suggest this intimate bodily scale, as in Hammer and Lodder's (2004) embodied seven techniques for materially producing the immaterial and in Blanchette's (2011) universal scale of the programmer at the heart of modularity.

Alternatively, this might be more usefully considered in terms of 'equivalence in difference', following Roman Jakobson (1966: 233), which requires a 'transduction' (following Murphy 2012; and see Keane 2013). Such a 'transduction' entails a shift in material register and its reconfiguration, typically a relative 'mortification', that enables movement and an extension (or condensation). The 'immaterial' is the effect of this 'transduction', that renders it motile, extensive and universalizable – a movement from one material state to another as observed by Blanchette (2011). The immaterial is always an attempt at producing this universalizable entity, whatever it is (consider Butler *et al.* 2000 on the ever expanding terms of the universal). Transduction enables flow and partibility but always refers back in some recognizable form – hence Jakobson's 'equivalence in difference' (following Murphy 2012). Thus the production of the immaterial is often a stabilizing intervention which produces a stable incorrigibility that must always refer back to the relations it sustains and then expands in a manner similar to Harpham's torque (1987: 77) – this is at once a material and ontological operation. This can generally be

understood in terms of the general notion of propinquity and its relative stability to produce social relations and with that an understanding of the body. What is the role of immateriality in this? To produce the terms of propinquity, securing and stabilizing the terms by which things should be constituted in relation to one another and their attendant social relations produced therein. The crucial point to emphasize is that this distinction is ideological, historical and contingent – that is, it produces the necessary dualisms that structure social life; hence their stubborn persistence for the reason of their continuous and productive social relevance.

These distinctions are produced within certain registers (or 'physics', as discussed earlier in relation to Reformation-era thought on the Eucharist) and these registers can exist simultaneously – this is an effect of the many conflicted commitments that converge on a given object, as will be discussed later. In fact their simultaneity is what makes them at once unstable and available for other uses, and is part of their extraordinary productive power. The examples so far provided, and those to come, describe the many instances over time when this simultaneity takes place and the different operations in play that would assert one register over the other.

Three-dimensional printing and 'objectlessness'

Recent developments in 3-D printing pose profound challenges to how we conceive of artefacts and the nexus of relations formed therein. Here the question of the immaterial emerges with particular force and is worth examining alongside other technologies of the immaterial discussed so far, especially the question of presence and how these new and ancient technologies of the prototype problematize presence, and how we might then understand the nature of immateriality and its social effects in these diverse historical contexts. In particular I want to consider how such distinctive technologies of the immaterial constitute the productive dualisms that structure social life both then and now (see Miller 2005b).

Three-dimensional printing is in essence a distinctly immaterial technology which is based on the manipulation of otherwise inchoate materials such as powders, liquids and ostensibly 'immaterial' digital code. Paradoxically, what is stable within this technology is not the artefact produced as such but the relatively immaterial digital code. Technology observers have described the emergence of this technology as heralding a second industrial revolution, one which enables what observers describe as total 'geometric freedom' (Hopkinson *et al.* 2006), and allows any shape that can be imagined and drawn in CAD-CAM to be printed three-dimensionally.

The CAD-CAM image is then translated into an .stl file which is then used to build up an object layer by layer along the z-axis to create a three-dimensional print. Highly fluid media such as polymer powders and metals are used by printers employing laser sintering or stereolithography amongst other printing techniques. The size of the printers vary from desktop printers to extremely large ones that can print out architectural or aeronautical components. Like any other digital file, the CAD-CAM image can be created anywhere in the world and then sent to a printer anywhere else in the world where it can be printed out three-dimensionally. Ultimately no solid media are being used, except such inchoate powders and liquids. Its uses are extraordinarily diverse – anything from medical prostheses to domestic objects such as fruit bowls and lampshades to clothing and, as we shall examine in this section, guns.

This 'disruptive technology' (Hopkinson *et al*. 2006: 4) completely refigures conventional design and manufacturing processes. It also problematizes conventional notions of the artefact harkening back to issues identified by the early and mid-twentieth-century Soviet theoreticians discussed earlier. One of the significant issues is how 3-D printing challenges conventional notions of presence in terms of propinquity. In addition, our conventional understanding of the recalcitrance of artefacts and their materiality in terms of 'bundling' (following Keane 2005) is problematized because of the possibility of multiple materials existing within a given print. The oft-noted 'recalcitrance' of materials is attributed a certain excess and agency that serves as a datum for our understanding of the material world and the relations forged therein. But such a 'datum' is not readily discernible within 3-D printing. Conventional recalcitrance is not in evidence, as anything and any shape in any configuration in any material combination can be imagined and printed.

The social edifices of the first industrial revolution heralded the social inequalities at the heart of Marxian analyses of society and our social analytical frameworks. Such frames are called into question with the advent of 3-D printing, which overturns these material and social edifices when the vast material and technical infrastructure that created nineteenth-century urban centres and social life at the heart of industrial manufacturing are here concentrated onto a desktop machine sitting in a home or office. Three-dimensional printing also recalls the utopian fantasies of the merging of designer and worker that preoccupied early and mid-twentieth-century Soviet thinkers. The conventional terms of propinquity within a manufacturing setting are unsettled in terms of conventional understandings of presence, if one considers how labour

migration, capital investments and global flows of commodities are overturned when an object can be designed anywhere in the world and produced anywhere – on your desk or thousands of kilometres away with the click of a mouse. The issues arising from this radical reconfiguration of these conventional flows of labour and capital can be succinctly discerned from notices such as a recent press release by the Hage Gallery for a printed pavilion they proposed for Hyde Park in London (see Figure 5.4). 'the CAD data (drawings) can be sent via email. This data can be used to manufacture the pavilion on an e-manufacturing machine anywhere in the world, therefore, incurring no shipping cost, taxes or duties' (quoted from Buchli 2013: 180–181 and see discussion). The territorial sovereignty of nation states with their borders and controls are overcome with a click of the mouse. The conventional dualisms sustaining our distinctions between objects and subjects, representations and artefacts that constitute our conventional understanding of the material world are obscured and difficult to disentangle and differentiate meaningfully according to these terms and in fact are reminiscent of the conditions and effects of an earlier prototyping technology – that of the prototype and the Christian icon discussed earlier. Physical and visual co-presence is confounded and conventional notions of propinquity are supplanted by one where the artefact exists outside of conventional notions of empirical presence. Similarly, ephemeral gestures exist in material, spatial and temporal modes outside of what one might conventionally consider. The Hage Pavilion just mentioned is just the materialization of the gesture of a hand crumpling a piece of paper – arguably the most minimal physical and ephemeral material gesture – the effects of which transduced as crumpled paper is scanned and scaled up to the size of a pavilion and printed. The aniconic gesture presences in the most extraordinary and limitless way – presencing a structure in any place and any time outside of the regulatory regimes of conventional sovereign territories and conventional understandings of the limits of space and time. The experimental work of Front Design (Labaco 2013: 199) takes the notion of the ephemeral gesture further as the very basis of its material practices and three-dimensionally prints directly ephemeral gestures made in the air.

If the legacy of the nineteenth-century industrial landscape becomes problematic as a result of 3-D printing, so the technology promises to revitalize that very same landscape, particularly where traditional manufacturing has declined. The United States President Obama's State of the Union address approached 3-D printing directly as offering the means of reconfiguring US industrial prosperity and military might:

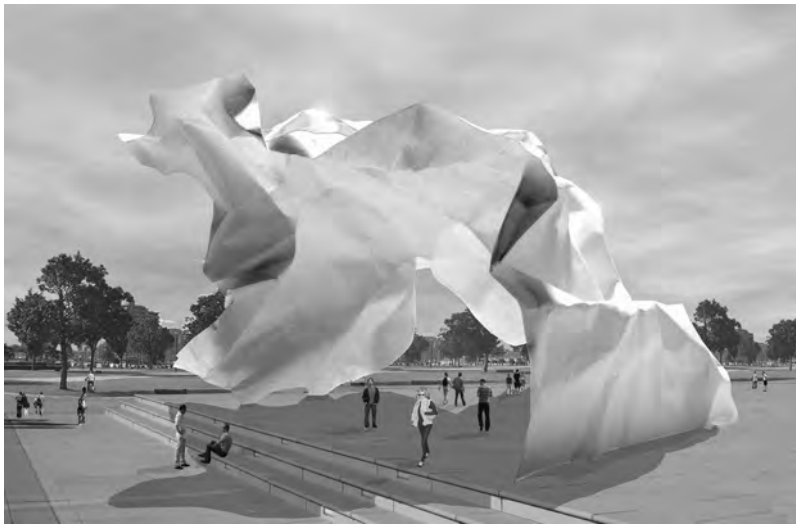

Figure 5.4 Rabih Hage Pavilion. © Rabih Hage Design Studio.

> A once-shuttered warehouse is now a state-of-the-art lab where new workers are mastering the 3D printing that has the potential to revolutionize the way we make almost everything. There's no reason this can't happen in other towns. So tonight, I'm announcing the launch of three more of these manufacturing hubs, where businesses will partner with the Departments of Defense and Energy to turn regions left behind by globalization into global centers of high-tech jobs. And I ask this Congress to help create a network of fifteen of these hubs and guarantee that the next revolution in manufacturing is Made in America.
>
> (Obama 2013)

Normal flows of globalization and state sovereignty are disrupted – as the Hage Gallery press release suggests – since objects can be created at point of need at any time and in any place rather than being produced somewhere else with traditional tooling and materials and transported to the point of use.

As traditional anthropological understandings of consumption and appropriation, alienation and authenticity are challenged, so too are conceptions of time. The Christian prototype discussed earlier produced an innovative means by which to presence the divine universally within a

new understanding of space, geography and time. Three-dimensional printing does the same. If the only element that is stable is the 'immaterial' code and the physical print is the least stable, being infinitely printable anywhere and at any time, then how is temporality in relation to the artefact to be conceived? How are conventional understandings of empirical presence then perceived, along with the notions of time that those understandings produce? Bourignon's seventeenth-century observations are particularly apt here: 'The Devil has likewise so many Holds, when he finds us wedded to anything. He makes Mercury of every Wood. But when we are free of Matter and adhere to God only, he cannot Hold of us on any Side' (Bourignon 1696: 95). How we think of the simulacrum and Benjaminian notions of aura along with the Gellian notion of the 'distributed artefact' are all questioned and need to be considered anew and with renewed significance just as antique notions of the Christian prototype discussed earlier refigured new understandings of presence and the terms of propinquity and the social relations entailed therein.

This material register advanced by 3-D printing, however, seems to express in the most perfect terms the materiality of neo-liberalism with its ability to produce extreme forms of individuation. But as many observers have noted (Ong 1967; Povinelli 2001; Rose 1998; Sassen 2007), such neo-liberal technologies of self are profoundly locally inflected. Similarly, the rise of 3-D printing, as fluid and universalizing as it might appear, emerges within specific settings and assumes new and unexpected dimensions precisely because of its specific material register and its local inflections – the specific agendas of governance and national development as suggested by President Obama is a case in point. This has most certainly been the case historically, as we have seen with other innovations, and this is certainly only to be expected in this new register of the apparently 'immaterial' – with the 'immaterial' not being the same everywhere and at any time – as President Obama's speech might suggest, there is a distinctly American understanding of the 'immaterial'.

However, though there may appear from one perspective a setting where total 'geometric freedom' reigns and conventional notions of recalcitrance are upset, new material qualities emerge that are the result of the 'shape' of the 'immaterial' data – in effect an unexpected material recalcitrance seems to emerge under these conditions of relative immateriality. The additive layering procedures along the z-axis produce a subtle jagged edge. This jagged edge produces a roughness that is similar to bone and amenable to medical uses. Under these conditions, thought and matter are mutually productive and actually impossible to disentangle. And with this our conventional dualisms of immaterial thought and material

things are here merged. As a 'disruptive technology' it disrupts more than industrial conventions of manufacturing and its social and labour relations but also disrupts how we conceive of the relationship between purportedly 'immaterial' thought and 'material' things. An example from the space industry shows how the extreme localization of production, design and manufacture in the same space upsets union-regulated conditions of transportation, manufacturing and quality control, entirely upending existing labour relations and the spatial conditions of manufacturing and its organization, and how we can even begin to conceive what in fact a stable 'artefact' is. Spielman (2006; see also Buchli 2010) discusses how inchoate powders used to produce a highly regulated 'flight certified' part for the International Space Station that could be produced many times over. However, what precisely would receive certification – what was in fact stable materially to be certified? In the end neither the printer that printed the component nor the software that produced it could be conceived as a 'part' in any conventional sense of a discrete stable artefact – only the previously inchoate and raw nylon powder itself was stabilized and certified, thus moving from inchoate 'substance' to discrete 'part' as a result of this reframing. However, this 'part' was not produced under traditional industrial conditions on a factory floor – such as an '*ustanovka*'(Gough 2005) – but within the engineer's room. However, entering this room as 'powder' it leaves it as a 'part' which can only be moved legally at this point out of the room and over its threshold by union personnel. As this small example shows, 'Spatial boundaries, such as thresholds, take on new trans-substantiative powers within the nexus of threshold, space, intensely individualized technology and labour union agreements' (Buchli 2010: 284). While 3-D printing upsets conventional social science categories of analysis or the terms by which union relations are forged in manufacturing contexts, it also represents a challenge for marketers in terms of how such artefacts are brought to consumer markets. The new and unexpected recalcitrance of 3-D prints, particularly those produced with polymer powders, achieves a certain fragility suggestive of bone and glass. Thus high-end designs for the domestic sphere are marketed according to the price points afforded to artisanal glass. Labour conflicts, economies of scale, copyright and wider regimes of governance related to national sovereignty all begin to come into a new alignment in relation to one another which will suggest a non-arbitrary direction to this seemingly protean and universal technology emerging in new, distinctive and unexpected ways.

The similarities with the Christian prototype are greater when one considers the relative immateriality of the icon within the Christian

tradition which echoes that of the 3-D printed artefact. When one considers the antique problem of the icon in relation to the idol, as has been discussed earlier, then this common immateriality emerges. Simply put, when an idol is destroyed then the divinity that inheres within the idol is destroyed along with it. This was the great innovation of the icon which reconfigured propinquity and materiality. The icon distributes presence rather than being localized; it is distributed because it refers to an immaterial prototype. The prototype per se is never present in the conventional empirical terms of physical and visual co-presence; it simply does not inhere within the icon. Thus one can destroy an icon without destroying the prototype. This is what distinguishes the icon from the idol. Within the nexus of propinquity which constitutes the icon, the material artefact as thing is relational – it is a conduit. Propinquity is established here haptically, as the previous discussions here have shown. The earlier example of Patriarch Photios' homily of 867 is worth repeating to demonstrate this principle:

> No less than these, but rather greater, is the power of sight. For surely whenever the thing seen is touched and caressed by the outpouring and emanation of the optical rays, the form of the thing seen is sent on to the mind, letting it be translated from there to the memory for the accumulation of a knowledge that is without any error.
>
> (Patriarch Photios cited in Barber 2002: 136)

This illustration of haptic vision demonstrates a different material register in effect. Such a register is not dependent on visual and physical co-presence. Rather, presence here is produced in a manner that transcends the constraints of visual and physical co-presence to presence the divine in a more extensive and universal fashion. Such an Aristotelian understanding of haptic vision is also dependent on a notion of physical contagion that haptic vision suggests. Another metaphor describing such haptic vision in reference to the workings of a seal is relevant here. The image is thus able to imprint itself on the soul: 'as a seal-ring acts in stamping' (Frank 2000: 125), with all the implications of contagion that the metaphor of touch conveys. Frank, as mentioned earlier, argued for the inherently dangerous qualities of visions under these conditions: 'Most dangerous was visions' power to connect the viewer so intimately to its object that the adhesion could damage the soul beyond repair' (Frank 2000: 131).

Our notions of heritage and conservation as concerns museum artefacts is characterized by a similar understanding of visual and

physical co-presence that one might attribute to an idol. Such artefacts do not work within the material register of the icon, whereas the 3-D printed artefact does, since the immaterial prototype, the .stl file itself, is never harmed when the artefact is destroyed: it can be printed again indefinitely. This of course poses a certain number of problems for the conservation and handling of such artefacts (see Scholze 2014).

The early Christian technologies surrounding the presencing of the divine are worth engaging with again at this point to consider the different modes of seeing, the terms of propinquity they effect and the forms of sociality they enable. As discussed earlier, at the beginnings of the Christian tradition scholars refer to the importance of 'bread, bone and image' (Frank 2000: 174) – namely the Eucharist, relic and icon (Barber 2002). Within this tradition two forms of seeing are distinguished: 'seeing at' vs. 'seeing past' (Frank 2000: 169) and 'being-toward' (Barber 2002: 121). What is it stake in the distinction between 'seeing at' and 'seeing past' is that within this material register one does not look 'at' but looks 'past'. One sees 'past' the icon to engage with the prototype – such a form of seeing is penetrative. Carpo's (2011) discussion of the 'objectile' embodies these principles quite closely, where the 'objectile' is just one of the infinite variations of the algorithm – it is not what is stable, it is the algorithm behind which is the site of authorship, where stability is achieved. To understand the work of the 'objectile' under such conditions is to 'see past' (Frank 2000) the object.

As with Carpo, the object per se is relatively unimportant; it is only one of many indefinite manifestations of the algorithm behind it. Within the early Christian tradition emphasizing the presencing technologies of 'bread, bone and image' (Frank 2000: 174), it is acknowledged that these materials in themselves are not significant (see also Barber 2002 regarding eighth- and ninth-century iconoclasts). Their power and efficacy do not lie in the objects themselves but in the haptic power of the viewer's eye as Frank (2000) observes. Such an eye is actually productive; it is not reflective of the relationship as it is able to produce the 'divine' by haptically being placed within the circuit of 'bread, bone and image' (Frank 2000: 174) and divine prototype and actually make physical contact with the divine (see also Eck 1998 on *Darsan* and haptic vision). As such, these materials as Frank observes were inherently expendable and to be considered inherently worthless under such conditions. Jerome acknowledged that holy relics were little more than 'a bit of powder wrapped in a costly cloth' (Frank 2000: 176). Frank further notes it was the haptic eye that constituted the divine by being inserted within this circuit which produced the conditions of propinquity that would presence the divine – 'as if they beheld the living prophet in their midst' (Jerome in Frank 2000: 176).

Such a form of vision assembled otherwise disparate heterogeneous elements, that on their own would be distinctly profane, into the reality of a prophet's presence. It is at once a copy of the original prototype as well as being a relic in the sense that it is contiguous with the prototype (Barber 2002: 29), having had actual contact with the prototype, and in fact is an attenuation and extension of it through the principle of contagion and touch that haptic vision enables – it is at once copy and original just as an 'objectile' would be in Carpo's analysis. Within such a register it is difficult to adequately disentangle when one thing starts and another ends. The conventional distinctions between materials and objects are difficult to maintain within such a 'tactile piety' (Frank 2000) and as they occur under the conditions of the 'objectile' described by Carpo. A register of propinquity is produced which is dependent on a novel articulation of the sensorium that enables haptic vision to make this material register for the conditions of propinquity work.

Later iconoclastic controversies as discussed earlier attempted to refine the effectiveness and social terms of this register of propinquity with innovations relating to the Eucharist or 'bread', which negotiated propinquity in a crucially distinctive way. The iconoclastic controversies of the eighth and ninth centuries might be said to be a question of which technique is better for the presencing of the divine and, as Mondzain (2005) would note, which technique also secures state sovereignty more effectively. Icons and other representations were not in themselves so problematic, except as to which form of propinquity would better enable presence and secure the terms of social life. Iconoclasts challenged the effectiveness of the material media of the icon as Barber notes, focusing on the declaration of Christ at the Last Supper and the presentation of bread and wine as a manifestation of his body (Barber 2002: 79). Bread and wine were more direct means of manifesting the propinquity of the divine rather than non-divine materials such as wood or paint, which could not make such a direct claim. Under these conditions, the mimesis of the Eucharist constituted a more direct connection in a more appropriate medium to presence the divine than could be achieved by other means. Thus the Emperor Constantine V could argue that bread and wine were better suited to presencing the divine and constitute new terms of propinquity: 'The Bread which we take is also an icon of his body, having fashioned his flesh so that it becomes a figure of this body' (Barber 2002: 80). Thus, as Barber (2002: 79–80) notes, if it could be attributed to the Christ figure himself that these were the more adequate manifestations of his presence then they would be superior to more corruptible wood and paint which were not consecrated by Christ himself (see Engelke 2005; Ginzburg 2002; Pietz 2002; Vilaca 2005).

Iconophiles, however, as will be recalled, would make a counter-claim, as did Nikephoros noted earlier, insisting on the terms by which icons constitute propinquity and 'mutuality of being' (Sahlins 2011):

> The icon has a relation to the archetype, and is the effect of a cause. Therefore, because of this it necessarily is and might be called a relative. A relative is said to be such as it is from its being of some other thing, and in the relation they are reciprocal . . . Likeness is an intermediate relation and mediates between the extremes, I mean the likeness and the one of whom it is a likeness, uniting and connecting by form, even though they differ by nature.
>
> (Nikephoros cited in Barber 2002: 116)

Haptic vision could then unite seemingly incompatible and heterogeneous elements into the manifestation of the divine. Nikephoros argues further that by 'Making the absent present by manifesting the similarity and memory of the shape [the icon] maintains [with its archetype] an uninterrupted relation throughout its existence' (Nikephoros cited in Barber 2002: 119), thereby achieving propinquity and presence through novel means. And, as Carpo (2011) notes, the 'objectile' though infinite and varied always has the status of a family relation with other iterations of the algorithm despite its infinite variations – what is stable, what is the object of authorship, is the infinitely expanding totality of iterations, not the individual object per se. Early Christian, modern and late modern sensibilities emerge with an unexpected similarity.

The two different technologies of the prototype here suggest very different material registers that serve to presence in distinct sensorial ways. They are not productive of a Durkheimian unified 'moral' and 'material' density (Durkheim 2001) as we traditionally understand within the social sciences. Why should a particular register work and not another? This is so, I would argue, because of a 'commitment' as understood by the philosopher of science Joseph Rouse (2002), to its efficacy and the community that is produced within that 'commitment'. For these reasons I want to maintain that our conventional notions of empirical presence might be more profitably reconsidered in terms of the idea of propinquity and the forms of community it enables, rather than in terms of colloquial empiricism and where visual and physical co-presence can be thought of as just one form of propinquity amongst many others.

The Christian prototype discussed thus far and the technologies of 3-D printing are productive of two different forms of attenuated universalism. The Christian prototype attempts to constitute a universal *ecumene* of diverse scales of time and space with diverse media which transcend

existing local understandings of visual and physical co-presence. Three-dimensional printing does much the same, and both technologies with their universalizing claims are closely bound up with the changing political economies of their time – just as Mondzain (2005) notes with regard to the iconoclastic controversies, and as will be discussed at the end of this piece in relation to the technologies of 3-D printing and the controversies surrounding state sovereignty and the monopoly of legitimate violence (Weber) in relation to the 3-D printed gun. At the heart of both technologies and their emergent conditions is the question of the 'immaterial' which attempts to constitute historically contingent productive dualisms and their social effects. In each instance the immaterial radically reconstitutes the terms of sociality and our understandings of the material, the social, the sensorial and the political. Our conventional understandings of empirical reality assume visual and physical co-presence as the dominant condition of propinquity that is forged within a particular material register. This can also be understood as just one means and one material register by which propinquity is achieved, as demonstrated by the Byzantine Nikephoros quoted earlier. How the 'immaterial' is produced in both these early Christian and late modern contexts is really the different ways in which the necessary productive dualisms of social life are achieved.

Such productive dualisms insist on the separation of the immaterial from the material and the 'incorrigible' which the immaterial sustains (Rorty 1970; Thalberg 1983). However, these distinctions are challenged by 3-D printing as a 'disruptive technology' (Hopkinson *et al.* 2006) along with conventional understandings of visual and physical co-presence and dominant Euro-American understandings of time, space and materiality. The concept of material culture here is itself confounded. In material/discursive terms, to use Karen Barad's language, there is a profound lack of distinction between the seemingly 'immaterial' code and the conventionally understood discrete material artefact. The 'worthless powders' of antiquity and the present, work to confound these accepted understandings of visual and physical co-presence which are no longer adequate to make sense of the newly emergent and yet to be stabilized modes of propinquity. As with the early Christian examples, we know these can shift in subtle ways in keeping with the contingencies of power and history. But as we shall see in the final section here, this lack of distinction between the 'immaterial' and the 'material' becomes subject to further elaboration and ever further vacillation in terms of the conflicted commitments that converge within digital artefacts and the relation between the material and the immaterial and in particular the role of state sovereignty which President Obama's 2013 State of the Union Address prefigures.

The question of propinquity calls into question the wider terms in which materially social relations are produced. It is worthwhile considering Marshall Sahlins (2011: 2) on kinship and propinquity and his notion of 'mutuality of being', which he posits as:

> A modest proposal for solving the 150-year-old problem of what kinship is, its specific quality, viz. mutuality of being: persons who are members of one another, who participate intrinsically in each other's existence. 'Mutuality of being' applies as well to the constitution of kinship by social construction as by procreation, even as it accounts for 'the mysterious effectiveness of relationality' (Viveiros de Castro 1998), how it is that relatives live each other's lives and die each other's deaths. Involving such transpersonal relations of being and experience, kinship takes its place in the same ontological regime as magic, gift exchange, sorcery, and witchcraft.

'Transduction', following Murphy (2012), can be understood as the contingent terms by which a certain 'mutuality' might be realized that has a quasi-magical character according to Sahlins' (2011) definition. 'Mutuality' (Sahlins 2011) is simply the contingent terms by which a given propinquity emerges. 'Mutuality' is what transduction produces: a novel configuration – a novel sociality. And 'mutuality' is that which is held to be incorrigible (Rorty 1970), as either transcendent or immanent. The immaterial determines the terms of 'mutuality' (Sahlins 2011) through its configuration of the material and the social – that is, the immaterial secures the relationality of the terms of 'mutuality of being'. One might consider here Maria Gough's (2005) earlier discussion of relationality regarding the installation (*'ustanovka'*), which was understood in the 1920s in the Soviet Union as based on 'immaterial' electricity. One can consider Barbara Maria Stafford's (2001) 'amorous attraction' in similar terms, as what might be more generally understood as the contingent terms of mutuality, following Sahlins (2011), that produce a 'mutuality of being'. These are the immaterial transcendent and ineffable ways by which the immaterial works to facilitate the productive terms of social life. Soviet electricity, post-Renaissance 'amorousness' (Stafford 2001) and 'woodness', in their abstract immanent sense can bring together 'the Virgin Mary' and 'kindling' within a radical mutuality that bring forth worlds – just as Marilyn Strathern notes in relation to the immanent qualities of the 'mutuality of being' that the contingent and produced mutual qualities of mother's milk, shells and semen produce (Strathern 1999). It is this produced and abstracted immanence that is also at the heart of Nancy Munn's (1992) notion of the qualisign in relation to material culture.

The 'Liberator' gun

In this section I would like to consider the emergence of the 3-D printed gun and the immaterial (see Figure 5.5). This might seem like a slightly perverse exercise in comparing the gun and the immaterial with other technologies of the immaterial such as icons. But as I hope to suggest both artefacts, and both technologies, are intimately linked with the problem of presence, sovereignty and violence (Weber 1958). The designers of the gun, Defense Distributed, claim Milton's Reformation-era 1644 *Areopagitica* as their manifesto (Bump 2013). This plea to the English Parliament to lift censorship, which was ignored at the time, is considered the precursor to justifications for the American constitution's first amendment. Milton's work is a defence of unlicensed publishing, hence its appropriateness for the unlicensed and unrestricted distribution and publishing of 3-D printed materials such as the 'Liberator' gun, realized in May in 2013 and since removed by the US government, but, more controversially, recently printed and displayed by the Victoria and Albert Museum in London in 2013. The reference to Milton by Defence Distributed is apposite in relation to the terms developed here. John Schaeffer (2000) has argued that the *Areopagitica* discusses the free printing of books as analogous to the Eucharist. Here books, the body and the body of Christ are conflated in Schaeffer's analysis of the metonyms and metaphors employed by Milton. As the Eucharist constitutes the wider abstracted body of Christ and the Christian body of the church, so too does the unregulated consumption of the print (the book) constitute the body politic. As Milton's argument is in reference to state sovereignty as regards the printing of books, so by extension goes Defense Distributed's argument for the free printing of three-dimensional objects in the guise of the highly controversial artefact of the handgun. As sovereign states yield legitimate violence and sovereignty is legitimated by this violence (Weber 1958), the printed gun challenges this sovereignty through its distribution. And, as was the case with the 'Liberator' gun, the Victoria and Albert Museum was unable to successfully import the gun in the conventional material terms because of the exercise of this sovereignty in the ensuing impasse between the United States government and the United Kingdom concerning its regulation and movement (see discussion in Shannon 2014).[1] However, the museum was eventually able to obtain a copy of the file and print the gun itself outside the regulatory practices of the two sovereign states involved, and then put it on display at the museum in 2013 (see discussion in Shannon 2014).

Figure 5.5 Victoria and Albert Museum 3-D printed gun. © Victoria and Albert Museum, London. Gun produced by Digits2Widgets.

Mondzain's discussion of another economy of images and their flows relating to the Byzantine icon is relevant here. In terms of the 3-D printed gun, there is a stoppage (following Strathern 1993), a 'cut', as Barad (2003) would describe it, that attempts to halt its endless dissemination. A cut that produces a sudden binary, a claim – a bifurcation (towards the immaterial) that girds an emergent and contentious dualism to assert its productive claims but which strives to do so in an as yet unresolved way. The example of the Christian icon and its prototype is instructive. Mondzain (2000: 67) notes in relation to the principle of contagion at the heart of haptic vision:

> Contact is the characteristic fact of this iconic formula. Everything which it 'touches' is seized by the effect of its uncomplicated presence in a contiguity which is made into a continuity. The icon is not content merely to show this contact; it creates it in the very thaumaturgy of its presence.

And, further:

> The development of portable icons only increased this space of contact and contagion. Wherever there is an icon, the gaze of God is

> present. It does not need a sacred architectural institution. Outside the church, it transports this holiness symbolically to all places, and makes it exist invisibly and with supreme power wherever it is found.
>
> (Mondzain 2000: 67)

However, territorial sovereignty and spatial regulation must be consolidated and enforced and the Byzantine iconoclastic controversies were the result:

> Against this invasion, the iconoclast emperor, careful to preserve his temporal prerogatives, states clearly that only those things which are consecrated and interlinked with sacramental space are holy . . . He wants to restrict the powers of clerics to the limits of the Church, and the Church within the borders of his own empire. . . . The icon is centrifugal and invasive: by propagation, it spreads the infinite principle which it includes, without limiting it.
>
> (Mondzain 2000: 67)

Thus Mondzain can summarize how sovereignty is legitimated and the particular material registers and relations of the immaterial that enforce it, and more specifically how iconoclasm and destroying images and stemming their proliferation produces sovereignty:

> It would be better to say that what interests the iconoclast emperors is to become, in the name of a fight against the idols, the absolute masters of political, juridical, administrative, and military representation, and the only practitioners of earthly *mimesis*. For the people as a whole, the sign of the cross would have to suffice; for the clergy, the celebration of the Eucharistic sacrament; for the king, administration and justice. *The people must make do with dissimilarity, the clergy must be content with consubstantiability. Only the emperor has access to similitude, and the iconoclast tekhnè could be nothing other than the art of governing.*
>
> (Mondzain 2000: 70)

As we know, historically, the iconoclastic controversies subside, imperial monopoly is challenged and the church eventually triumphs in its iconophilic power. As Mondzain (2000: 71) notes further:

> It appears the Church knew how to support and defend an uninterrupted alliance of sovereign and sacred office with economic offices. It thus submits itself to the service of war, which it designates as unsuited, by itself, to mediation, which is to say, to symbolization.

In the case of the 'Liberator', the monopoly on violence that secures state sovereignty, which was challenged by the immaterial code that would secure an entirely different order of sovereign subjectivity in relation to violence, is suppressed. The flow of the immaterial code is literally halted, 'earthly mimesis' is curtailed, to use Mondzain's language, sites are forced to shut down, printers are confiscated (Beckhusen 2012), bank accounts are closed (WikiWep DevBlog 2013), the material nature of the 'immaterial' code (following Blanchette 2011) is invoked and manipulated (as in any assertion of the material woodness of icons earlier). Here it might be useful to recall Michalski's (1993: 187) earlier observation of how John Knox, while

> in Catholic captivity, was given an image of the Mother of God to worship. He responded saying: 'Mother? Mother of god? [. . .] this is no Mother of God: this is a pented bredd [painted board] – a piece of wood, I tell you, with paint on it! She is fitter for swimming, I think, than for being worshipped' added Knox and flung the thing into the river.

The vast material infrastructure that supports the immaterial flow of digital information that Blanchette (2011) observes is suddenly, and not without some violence or at least its threat, asserted and invoked, ceasing the 'immaterial' flow of files and the servers and the financial instruments that support and distribute them in order to enforce, momentarily, a new emergent order of sovereignty. It is precisely this material infrastructure that produces the 'immaterial' realm of the digital that was invoked and elevated, and with a certain violence, in the suppression of the 'immaterial'. Thus a newly refigured and complex material and juridical nexus was asserted to destroy this image: from the invocation and threat of accusations of illegal trading and the circulation of firearms to force the removal of the files to be erased materially (as Blanchette 2011 would describe it) from Defense Distributed's site to the manufacturer of the 3-D printer, revoking their licence and confiscating their equipment because of the potential illegality of the print (Beckhusen 2012). Defense Distributed has managed to exploit the grey area the printed gun occupied and legally obtained the right to produce and sell arms. To the point that within this grey area the Victoria and Albert Museum was able to function and actually print its own as well as eventually import an early print by Defense Distributed, albeit it was stuck at the time (2013) in UK Customs negotiations (Shannon 2014), subject to the negotiations of two sovereign states as to the status of the print within this 'grey' area – a grey area like the grey spaces of Yiftachel

(2009), where a new and highly conflicted and contentious understanding of sovereignty, subjectivity and materiality was emerging and, with that, a novel understanding of the emergent and conflicted immanent qualities of the print which had yet to be adequately stabilized. In the end, in 2013 the controversy continued unabated because sovereign powers at the level of the US and UK nation states asserted the 'materiality' of the 'immaterial' in order to regulate its social effects – a certain iconoclasm prevailed which asserted that mundane materials are amenable to sovereign regulation and insisted on their destruction in order to stem the effects of the immaterial.

As Yiftachel (2009) has noted in terms of the constant destruction and reconstruction and destruction that characterize grey space, new orders of subjectivity and claims for sovereignty are produced unexpectedly and within extraordinary new investments into the materiality of things and their attendant social effects, that produce novel forms of immanence that effect social action. This is the 'sin of Saul' (Pietz 2002) that there is always a return if the iconoclastic destruction is not complete, which by definition it never can be – being an intervention within the material world it always produces its own traces, fragments and alternative excessive materiality. In the case of the 'Liberator', the possibility of an unexpected return might have been not only in the repressed immaterial code of the files used to produce the gun (which despite being asked by the US government to remove the files from its website, through the invocation and elevation of the material terms of the 'immaterial' digital and the exertion of physical and juridical power, it is speculated that they still exist in innumerable downloaded copies[2] on various hard drives around the world). Rather, this unexpected return might be evinced in the rather surprisingly aniconic 1-inch nail that Defense Distributed distributes instead through its website (http://shop.defdist.org/products/1-roofing-nail, accessed March 21, 2014). This nail aniconically presences the violent capacity of the absented digital files that would presence the gun anywhere, at any time. Similarly, the material terms by which the 'immaterial' might be realized – that is the material infrastructure that enables the 'immaterial' to exist and proliferate – was invoked and confiscated by the manufacturer of the 3-D printing machine which Defense Distributed had intended to use to print the gun. The Liberator's ability to actually fire after having been downloaded and printed properly, however, is secured by the one metallic component that would enable it to enact its violent force – a perfectly ordinary universally available 1-inch nail (see Figure 5.6). Here this most banal of artefacts is the one guarantor of its violent capacity – the banal material conditions by which ultimately the deadly effects of the weapon can be

secured. Such banal materials are suddenly elevated through the material suppression of 'immaterial' code, as evidenced by its US$5 price tag and free shipping (http://shop.defdist.org/products/1-roofing-nail, accessed March 21, 2014). Not much, one might argue, but certainly much more than one might pay for such a nail in any hardware shop across the world where such a nail and many more can be purchased for a great deal less – where in fact such a nail would simply be worthless, like the worthless powders discussed earlier. Here suddenly it is momentarily elevated from being a worthless mere 1-inch nail, to something along the order of a metonym (a missing part of the supressed whole), or an aniconic gesture suggesting the absent digital files that would together presence the whole with its deadly force and claim on the monopoly of violence anywhere and at any time and thereby assuming the status of a sign with an unexpected and emergent immanence and challenge to state sovereignty – and with that signalling a very different relation of the individual to that sovereignty. Like the Candomblé stone discussed at the very beginning of this book, it assumes a highly conflicted irreducible materiality that is the result of the specificities of its historical emergence. It ought to be easily re-incorporated into a given regime but cannot because of the irreconcilable conflicts that focus on it. It exists in a certain limbo which does not allow it to be assimilated one way or the other, much as the material commitments to the 'Liberator' gun as 'artefact', as '.stl file', render it as yet unassimilable into any one given regime and which thereby produces an unexpected and novel 'immanence' that is the product of these conflicted commitments. The unexpected status of the 1-inch nail is one manifestation of this novel 'immanence' and that is evident in the actual display of a 1-inch nail in the Victoria and Albert Museum's exhibition of the 'Liberator' gun in 2013 – the nail, its 'provenance' etc. is never mentioned in the Victoria and Albert display and exhibited explanatory materials, even though it is displayed at the centre of the 'exploded' gun arrangement in the case. The 1-inch nail itself was merely sourced from within the museum's supplies and stores (Louise Shannon, personal communication) – previously a banal artefact now suddenly charged as the literal lynchpin of a highly contested and newly emergent and novel material immanence, as evidenced by its unexpected display (a highly charged and novel immanence that is the reverse of the conditions at the heart of the Candomblé stone, which was similarly aniconic, removed from display and held in museum storage, as discussed earlier).

Shannon (2014) describes how the legal holes between the governments of the US and the UK resulted in the gun not being able to be exported in time for exhibition in 2013. As a consequence, a

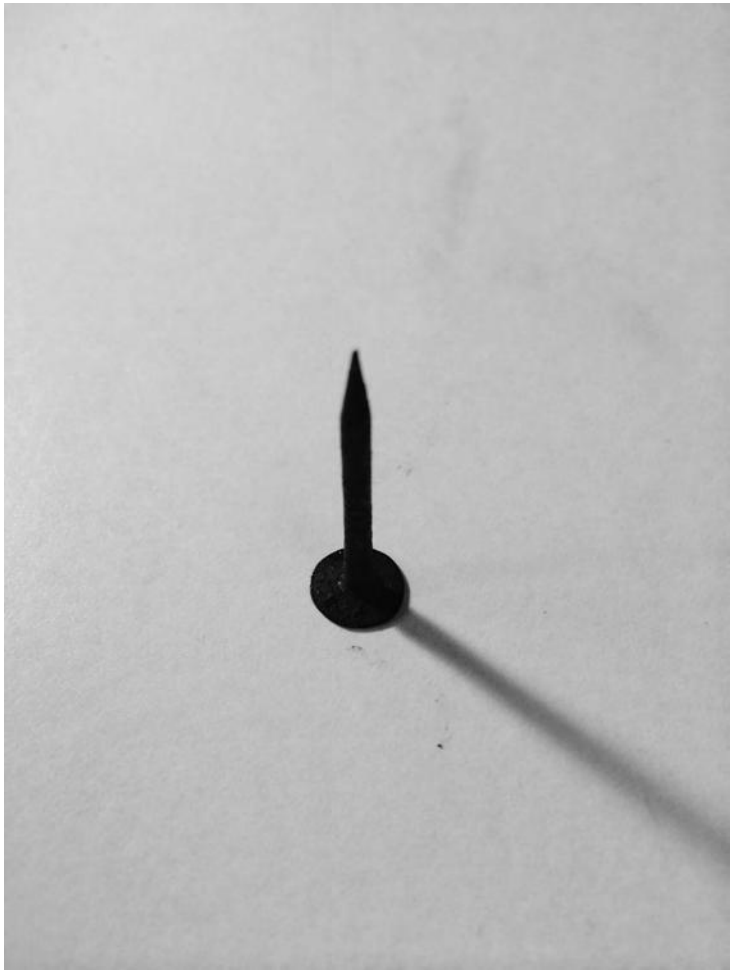

Figure 5.6 A generic 1-inch nail. Author's collection, photo by V. Buchli.

local printer who managed to download the files before the US government shut down Defense Distributed agreed to print the gun. But because of ethical reservations over the printing of weapons, the printer printed the fifteen parts of the gun in nylon as well as plaster, rendering it useless in any sense as an operational gun – and furthermore printed the components at slightly different scales so as to further make it incapable of actual assembly (Shannon, personal communication).

Disassembled in different materials and at visually imperceptible but incompatible scales, what was in effect an unworkable 'model' of the 'gun' was put on display in 2013 along with the one non-printed component – the universally available and unregulated metal nail – serving as the firing pin sourced from the Victoria and Albert Museum's own in-house supplies. Thus the mock-up of the 'gun' could be displayed without violating any US or UK laws (Shannon 2014) for the duration of the temporary exhibition for which the actual printed gun produced by Wilson was intended. However, as Shannon (2014: 143) noted at the time: 'Our Design Fund Display came and went, our stand-in 'Liberator' installed and de-installed. Our official V&A Registered File (which will be archived for future researchers) bulges with correspondence, but our storage shelf sits empty'.

As in the many examples provided for so far, and in particular the example of the '*ustanovka*' earlier, as with the example of the capacitator box for the International Space Station, the configuration of the various entities in relation to one another – what can be understood as the terms of propinquity which brings things together to effect social relations – is profoundly conflicted here. Shannon (2014: 38) notes how Cody Wilson of Defense Distributed could secure a licence to manufacture guns in the US if he created a 'workshop' that could be licensed – which he did, but one of unremarkable and banal simplicity (a printer, a safe, a fire extinguisher, framed licences, a table, a metal detector) that could be a room anywhere. However, as with the International Space Station example, that propinquity had to be circumscribed to only printing within that specific space and configuration. To make the .stl files available to anyone, anywhere through the servers constituted a violation of US export law, and the terms of propinquity in the exercise of state sovereignty and national territoriality were circumscribed. On the UK side at the Victoria and Albert Museum, the terms of propinquity were similarly fraught and further complicated such that the actual assembly of a gun was not possible whose propinquity was complicated and fragmented by the use of different materials (nylon and plaster) and further disaggregated in actual form into separate component parts of incompatible materials, and then only in existence for the short duration of the 2013 exhibition. As Shannon (2014) notes, the shelf in the Victoria and Albert Museum stores was empty – the reverse of the situation described by Sansi-Roca (2005) in relation to the Candomblé stone, which can only be hidden from view in the museum stores. The terms of propinquity in relation to one artefact – the 'Liberator' gun – are indeed highly conflicted, complex and unresolved, producing new understandings of material immanence and the social relations such an immanence affords,

which are as yet unstabilized, indeterminate and emergent within conditions of extraordinary and unexpected complexity, most notably in terms of spatiality and governance, as this example and the examples of the space station capacitator and the Hage pavilion suggest. And with it, following Bruno Latour's (1999: 179–180) language, a new 'proposition' regarding the 'gun-citizen' that was becoming 'someone, something else', as yet emergent and unstabilized.

Killing images and images that kill

The comparison of a 3-D printed gun to the Byzantine icon might seem perverse. But the relation of the image to violence and this most emphatically violent image which is the .stl print is apposite. The Byzantine scholar Mondzain (2009: 23), apropos the images of 9/11, asserts this connection:

> But today there is an additional strange anxiety: the power of images consists in pushing us to imitate them, and the narrative content of images could commit direct violence by pushing us to enact it. Images were once accused of making visible; now they are accused of making us do things.

Nothing exemplifies this point more succinctly than an image which literally kills, the 3-D print of a gun. In such a setting, then, the 3-D print conflates to cite Mondzain (2009: 24) in a related context: 'the violence of images and images of violence'. Mondzain (2009: 26) asks: 'Can images kill? Do images make us killers?' The advent of the 3-D printed gun forces that question with greater alacrity. This is the conflation of image and artefact that 3-D printing sustains, harkening back to the deadly and demonic perfection of mimesis discussed earlier: the illusion of perfect imitation (Harpham 1987: 43) which so threatened the institutional authority of the early Christian church. These were the tournaments of highly individualized and unregulated ascetics who would compete to achieve perfect deathlike representation. It is worth repeating Harpham's observation in this context: 'In the fourth century Gregory of Nyssa wrote of asceticism as a repetition of Christ's original "taking-from" the act by which he fashioned "a beauty in accord with the character of the Archetype" and made himself an "image of the invisible God"' (Harpham 1987: 24). The animate would strive to become inanimate – more thing-like, as Harpham (1987: 26) notes, which boasts such as 'I am deader than you' (also see Eisler 1961), in terms of the perfection achieved by ascetic mimesis and iteration or the merging of the

animate and inanimate in the practice of St. Simeon the Stylite, where human being and column literally merge to become one and indistinct, as the saint's name suggests, in the quest to achieve the most perfect iteration of the divine prototype. Such highly individualized claims towards the realization of this perfect iteration ran afoul with the more communal and institutional claims of the church and its relation to state power, which in later years lay behind the iconoclastic claims and the curtailment of unregulated iterative power that the iconoclast controversies sought to contain (Mondzain 2005).

Here Mondzain (2009: 28) notes: 'The violence of the image explodes when it permits the identification of the unrepresentable within the visible; this is the same as saying that the image is only sustained through a dissimilarity, in the space between the visible and the seeing subject'. As such, in strict terms the 3-D printed artefact functions as both 'idol' and 'icon'. Here it might be useful to consider the biblioclasms of the Reformation discussed earlier, where the immaterial word was rendered as destructible material object. It is an 'idol' in the sense that it is unto itself a literal, temporal and physical manifestation of its potency (a 'fetish' in more conventional terms, of which there is a unique original which must be collected as the Victoria and Albert Museum attempted unsuccessfully in 2013 (Shannon 2014), but has since managed to do successfully), and also an 'icon' in that it represents through material and visual (i.e. haptic) contagion a limitless, extensive and universal immaterial entity which is the endless proliferation and summation of all artefacts at all times and in all places and that could be manifest anywhere and at any time (as the authors of the 'Liberator' gun would have and as the Victoria and Albert Museum in fact did invoke, having a mock-up of the gun printed instead when the 'original' could not be imported in 2013).

In each of these instances of the immaterial a reconfiguration of the sensorium has been implicated. Early Christian thinkers understood that the creation of a universalizing Christian *ecumene* required a reconfiguration of the sensorium (Frank 2000; Barber 2002). The presencing technologies of the icon required a new way of cognizing presence and the theology of the era served to reconstitute this new form of perception and vision. Similarly, during the Reformation the rise of print technology also involved a reconfiguration of the sensorium in relation to the new terms of the immaterial. And, as has been well documented, the conditions of the early Soviet state in relation to the immaterial involved a renewed understanding of the senses following Marx's own observations in relation to the liberation of the senses and the senses achieving a new theoretical power. The notion of the *kinoglaz* by early

Soviet visual artists attested to this renewed capacity of the senses in a cyborg-like manner to constitute a new, liberated sensorium under the conditions of socialism, as Soviet theoreticians endeavoured to do so throughout the Soviet period. In each instance the sensorium is reconsidered in relation to the production of the immaterial. In this regard the Stalinist suppression of genetics as bourgeois science that was characterized by critics as arguing for the hardwiring of the human mind and body and its capacities was supplanted by a Lysenkoism that argued for the inheritance of characteristics acquired through life (not genetically), which would support the need to create a new sensorium and sensory and cognitive capacities on the basis of a Marxian organization of industrialism with new human and sensorial capacities. As Malafouris (2013) has more recently argued in his theory of material engagement, such technological innovations result in the reconfiguration of cognitive capacities in relation to the changing conditions of the material world and developments of material culture over time. The digitized artefact, the 'objectile' of Carpo (2011), following Deleuze (1993), and the production of the immaterial under the conditions of early twenty-first-century digitization suggest a distinctive shift in cognitive capacities: 'to see past' and not 'look at', as discussed earlier. Certainly that is what Christian theoreticians, both late antique and early modern thinkers, were keen to suggest, and similarly this is what early and mid-twentieth-century Soviet thinkers were at pains to produce through the constitution of the immaterial. However, contra Malafouris (2013: 237), it would not be useful to discard dualisms such as Cartesianism and others such as 'representation' as 'fallacy', bearing in mind and repeating the cautionary words of Richard Rorty (1970: 422–423):

> For as long as people continue to report, incorrigibly, on such things as thoughts and sensations, it will seem silly to say that mental entities do not exist – no matter what science may do. The eliminative materialist cannot rest his case solely on the practices of scientists, but must say something about the ontology of the man on the street.

Instead it might be more profitable to consider the wider implications by which such dualisms – as effected by the production of the 'immaterial' and their attendant ontologies – reconfigure human capacities and function in more explicitly political terms to reconfigure the terms of social life on the basis of such productive dualisms as the production of the 'immaterial' effects. As with the examples just mentioned, this latest chapter in the long history of the production of the immaterial and the new, contemporary 'immanences' and 'transcendents' it effects, is just the

latest instance of this reconfiguration of power and human capacities and their wider social effects, that the production of the immaterial enables.

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Notes

1 However, since 2013, the Victoria and Albert Museum has been successful in importing from the United States a fired and unfired print of the gun which are on display at the time of writing.
2 Shannon notes that 100,000 copies were downloaded across the world over the first two days and notes that each download outside the sovereign territory of the United States was consider an illegal export that could be punished with 10 years in prison, potentially sending the author of the file to prison for life many, many times over (Shannon 2014: 139–141).

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