



Chapter I

The Clever Object: Three Pavilions, Three Loggias, and a Planetarium

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Imagine a student at Yale University in the late 1940s named Harry Sandoval (1930–77) who drew a cryptic architectural plan in one of his student notebooks. Sandoval was then enrolled in several courses on the art and architecture of colonial Latin America offered at Yale by pioneering art historian George Kubler. Perhaps unsurprisingly (this Sandoval hardly covered himself in glory as a student), the sketch is difficult to reconcile with the models of built form that Kubler was then illuminating in now-classic publications like *Mexican Architecture of the Sixteenth Century* (1948). Instead, Sandoval's design suggests an odd pastiche of seventeenth-century Anglo-Dutch architecture and visionary forms from the French Enlightenment.¹ Three freestanding pavilions with rusticated quoins, each punctured by the vertical stiles of three windows, are connected by two loggias, the second split in two by a doubled colonnade. Visible only in the inset floor plan at the sketch's lower left, a third loggia joins the complex to the massively swelling, oculus-punctured dome of a planetarium behind it. Stranger still is the small packet affixed to the back of this apparently abortive design. In smudged, red grease pencil, a hand irreconcilable with Sandoval's bulbous script has scrawled the legend 'Clever Objects?' across the face of a yellowing envelope. Inside that envelope are three slips of tracing paper, each inscribed with a phrase: 'object', 'materiality-narrative', and 'cleverness'.²

Whatever relations may have been intended between recto and verso, between architectural sketch and paper packet, Harry Sandoval's assemblage provides an auspicious point of entry to the present volume: a floor plan, as it were.³ For our volume uses material artefacts to address one specific question: what is a 'clever object'? To approach this oddly alluring yet baffling phrase that sits on the threshold of recent thinking in thing theory, anthropology and art history – and that is prompted by the networked gadgets we now do that thinking with – our contributors have collaborated with difficult, even intractable, artefacts. In the pages that follow, you will read of a miraculous Paduan glass, a now-lost lienzo from colonial Mexico, a paper model of a telescopic micrometer made in the early British Enlightenment. You can follow the machinations of a French Rococo folding screen, a mythological, Arts and Crafts-era tapestry, and contemporary photographs of objects 'at their leisure' as you consult the reflections of twenty-first-century artists on 'tell-tale sculptures' and other works that apparently enjoy lives of their own. These objects, we aim to show as much as tell, speak less to a high-minded 'intelligence' of art – indeed, they need not be art at all – than they body forth wily species of situated canniness.

**Detail from Susana Soares,
Face Object, 2007 (plate I).**

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Francesco Lucchini. © 2013
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Even when we take the standard warnings against specious animism and commodity fetishism under advisement, these far-flung clever objects resist conventional terms of engagement. Further, although most are losers to an art-historical game in which they barely exist, these artefacts seem to guide, subvert and even entrap their makers, beholders and interpreters alike. Following Nietzsche (however perversely), the approach of this volume has not been to shatter our weird objects into disciplinary comprehensibility. Instead, we aim to let their soundings reveal the contours of the semantic fields they occupy and the varieties of subterranean thinking their material forms seem to instantiate.⁴ Is such apparently intelligible, our essays ask, always and only a mystification produced by cunning communities of producers and consumers? Or are some objects truly made 'cleverer' than others through their facture within the maelstrom of chance to which all material artefacts are necessarily subject? If witty, self-aware, talkative objects have conventionally been privileged by humanities-based interpreters (and, per Miguel Tamen, centre all human sociability), might the clever object be defined by its ability to 'play dumb' – to conceal its true efficacies in a camouflage of docile utility and functionality?⁵ At a moment in contemporary practice when skill is at once shunned from artistic discourse and recouped through outsourced object-fabrication, could the craft manifest in many of our objects help to disclose deeper, persisting forms of craftiness that seize upon accidents and contingencies of making for contrarian, even subversive ends?⁶ Ultimately, then, what are the politics (historical, disciplinary or otherwise) of these objects? Are they isolated gadflies, woebegone exceptions that prove the rules of disciplinary narration? Or might they be seen as constituting some form of stealthy collectivity – less wise, perhaps, than street-wise – an alternative, murky stream to art's valorized intelligences?

Tricky as they are, we have aimed to pose and think through these questions in determinedly collaborative fashion. Under the auspices of 'The Clever Object Research Project' at the Courtauld Institute of Art, this volume began with a theft. Baldly lifting a page from the seminar structure that culminated in Lorraine Daston's *Things that Talk* (2004), the project convened for three sessions in London in 2009–10. The brief given to each participant was simple: come to the first session with a candidate clever object in mind. Be prepared, we asked, to explain to the group what might make the chosen object saliently 'clever' (in addition to whatever other predicates it might also answer to) and be ready to elucidate how that specific cleverness might help us all to elucidate the nebulous category of clever objecthood more broadly. Over three sessions, we read texts and presented papers, then pre-circulated and critiqued drafts, before pre-circulating and critiquing again. The project's final two meetings were illuminated by presentations and dialogue with contemporary artists Ian Kiaer and Simon Starling who are represented in this collection.

Akin to Hubert Damisch's 'theoretical objects', we wagered initially, a clever object might be both force and force-field; perhaps it 'obliges you to do theory but also furnishes you with the means of doing it ... it will produce effects around itself.'⁷ Taking on board Jean Baudrillard's dictum that such theory would inevitably find the object 'to be more clever [malin], more cynical, more ingenious than the subject, which it awaits at every turn', our thinking quickly turned to the figure of the trap.⁸ Model of its victim and maker, the trap is concealed knowledge incarnate that attains an instructive independence once baited and poised. 'Located in the trap, in objectified form,' so anthropologist Alfred Gell keenly argues, '... this objective knowledge would survive even the death of the hunter himself.'⁹ Yet, as we wrestled with their material intricacies, many of our objects began to shape-shift (sometimes self-referentially)

from authorizing games of make-believe into prompting free-flowing reveries.¹⁰ More pithily, to strike a theme that takes on variegated life in our essays, these traps were becoming trapdoors. And many questions remained. If reflexive or even self-aware, were clever objects also necessarily self-critical?¹¹ How could we reconcile the insistent, often awkwardly excessive, materialities of our artefacts and the quasi-numerological fixations they spawned among their interpreters with any compelling story about cleverness? Although our means through these gnarly thickets have been empirical and agnostic – any account of the clever object, we said, was always going to have to proceed upwards from engagement with particular objects and the kinds of cleverness they manifested – our collective aim has been utopian: to bring the phrase ‘clever object’ into a life as a category of analysis.

With its conjoined pavilions, mysterious inscriptions, and looming planetarium, the abandoned shell of Sandoval’s design can provide a fortuitous frame for fronting that enterprise. In the remainder of this introduction, we have interpreted Sandoval’s sketch as a builder’s brief and made our text a travelogue through it. If, as Gaston Bachelard has put it, ‘the sticky, pliable, lazy, sometimes phosphorescent – but not luminous – object corresponds ... [to] the greatest ontological density of the oneiric life’, we have imagined each of Sandoval’s pavilions as if animated by a provocative artifact, whether ultimately clever or not.¹² The sections that follow are organized around a glass diagnostic object created by contemporary designer Susana Soares, a picture on (and about) cloth painted in seventeenth-century Mexico by Jerónimo de la Portilla and a wooden, contemporary feint of Renaissance painted illusion crafted by sculptor Patrick Hughes. Conjoined by three discursive ‘loggias’ that place those objects’ sticky phosphorescence in larger intellectual context, our structures open into Sandoval’s planetarium, which surveys the volume’s contents and the prospects for clever objecthood more broadly.

Pavilion I: Face Object

Left unused upon a table top, Susana Soares’s *Face Object* (2007) might be mistaken for a large fruit bowl (plate 1). Upward from the centre of this hollow hemisphere of glass sprouts a mouthpiece; a tiny aperture opens at the flattened base, emptying into the vessel’s larger chamber. This is where the bees go. The piece works like this: carefully hefting the fragile, hand-blown glass object, the user breathes into the mouthpiece and removes it from her face. Stimulated by this exhalation, a company of four to six trained bees sets to work inside the vessel. Through rapid (and rapidly reversible) training, these bees have been taught to detect specific chemical signatures of health manifest in human breath by using their powerful sense of smell.¹³ Associating by Pavlovian reflex the source of chemical scent with the delivery of food, the bees will move into *Face Object*’s inner chamber if they detect a target signature of lung cancer in the user’s breath. As the patient holds the vessel with the solemnity proper to a diagnosis of this magnitude, the bees make their assay in a matter of minutes. Either they will buzz benignly around the larger chamber, or fly into the inner vestibule indicating that cancer is commensurately present inside the user’s body. Crucially for Soares, all of this is made visible – transparent – to the patient. We can watch the quorum of bees as they transform imperceptible exhalations from our bodies into data for medical diagnoses, which are made with an accuracy comparable to conventional, clinical methods.

Susana Soares has strong art-world credentials. Trained at London’s Royal College of Art, she builds upon a modernist aesthetics of glass as a medium of transparency and has shown her work in venues as august as New York’s Museum of Modern Art.¹⁴ Yet, Soares positions her ‘new organs of perception’ not as art, but as tools



I Susana Soares, *Face Object*, 2007. Hand-blown glass and live bees. © Susana Soares.

for practical and conceptual use. To a sympathetic viewing, those clever objects place animal-agents as the human patient's mediating intercessors. By observing bees, mosquitoes and other supposedly lowly creatures as they respond to stimuli to which we have no perceptual access, the user can come to apprehend her being-in-the-world as extending outward through a field of beasts who can now be called allies, even our doctors. In this way, *Face Object* acts as an ontological provocation. Accomplishing a diagnostic function, it redraws the bounds of our bodies while simultaneously remapping our conceptions of what technology looks like.

But, as with many of our objects that appear too clever by half, the price paid for such clustered interventions is steep. After all, in a standard clinic, a physician treating a patient exhibiting symptoms of lung cancer might order X-ray and computed tomography (CT) scans to aid diagnosis.¹⁵ Bombarding the patient with electromagnetic radiation and converting those electronic signals into digital visualizations, such medical imaging techniques produce complex representations of the patient's inner organs. Scalable, compressible, storable and manipulable, those visualizations enable the physician to locate the size and shape of unusual formations. By interpreting characteristic patterns of reticulations, nodules, or 'ground-glass' forms in pulmonary abnormalities, the physician can infer the identity of the disease and assess the pathology's general progress.

Face Object can do none of that. The work generates a diagnosis based upon the registration and response of bees to the presence or absence of a targeted chemical signature. But where in the lungs is the cancer located? How advanced is it? Has the cancer spread from the lungs to other organs? On crucial questions like these, the object is completely silent. It can transform chemical scent-data accessible to bees into a visible assay regarding one specific question alone: that is, is lung cancer present in a human body? Worse, at least from the point of view of the demands of the ‘immutable mobiles’ that Bruno Latour has seen defining the desideratum of scientific visualization, *Face Object* possesses its diagnostic hold on bodily interiors only insofar as cancer’s chemical smell remains perceptible to trained bees buzzing in a fragile, glass vessel.¹⁶ Unlike an X-ray, *Face Object*-qua-diagnostic visualization cannot be archived. It could never be shipped around the world or even compared easily with other medical images. And, presumably, any patient who received a positive result from the bees would need to be retested by more conventional medical techniques. So, even if we can appreciate their displacement of medical authority from a human in a lab coat to insects inside a glass globe, Soares’s clever-clogs objects betray substantial indebtedness to the very medical establishment they ostensibly mean to problematize. What, if anything, should the art historian do with artefacts like these? And can they really be said to be ‘clever’ at all?

Loggia I: Object

Unstably poised between art and instrumentality, between conceptual subterfuge and medical obtuseness, Susana Soares’s glass vessels bespeak a significant totemic alignment. After all, bees have long figured in marking the boundaries of art. Inspired by René Descartes’s famous optical experiments of looking through the eye of a bull, Dutch microscopist Antoni van Leeuwenhoek wrote to London-based scientific colleagues in 1674 conveying still more wondrous sights.¹⁷ ‘As to the Eye of the Bee, which I have taken out of the Head, exposing its innermost part to the Microscope,’ Leeuwenhoek explained, ‘I find, that the Bee receives her light just with the same shadow as we see the Honey-combs.’¹⁸ Aiming to understand relations between seer and maker, between insects and their hexagonally shaped built environment, Leeuwenhoek’s microscopic observation through bee eyes yielded a strongly negative verdict: ‘The Bee makes not by art or knowledge, but only after the pattern of the light received in the Eye.’¹⁹ A century later, Immanuel Kant took bee-making as a still higher threshold for art’s definition. ‘We like to call the product that bees make (the regularly constructed honeycombs),’ he acknowledged in the *Critique of Judgment*, ‘a work of art.’²⁰ That, for Kant, is just loose talk. Because bees make by instinct rather than rational deliberation, their products have to be excluded from the domain of art in its broadest sense; they are certainly banned from the precincts of imaginative free play that would typify Kant’s *schöne Kunst*.²¹

Vexed by animal-fullness from above, a prospective art-historical consideration of Soares’s work might be equally menaced from below by its eponymous objecthood. Before artefacts that so fundamentally demand a beholder’s participation, as Michael Fried put it in his epochal critique of minimalist sculpture, the interpreter not only confronts a vacant semblance of art, but is actually defaced in the process. The work ‘makes the beholder a subject and the piece in question ... an object.’²² Spiriting theatrical non-art into the aesthetic realm, Fried’s minimalism implicated the beholder in a false ontology – a view of objecthood and the everyday rooted in the existential phenomenology of Martin Heidegger and Maurice Merleau-Ponty.²³ According to that tradition, the opposition of subject to object occludes and flattens crucial facets of human being-in-the-world, a levelling characteristic of

everyday life in the modern, industrial West. Already blurring nature/culture, utility/imagination divides, *Face Object* could be seen to name its own critique: a defacing interpellation of beholder as subject over against an empty, emptying object. And that error is only compounded when we ennoble such an inert, hollow idol with cleverness. As theorist Jaron Lanier has put it in a different context: 'The attribution of intelligence to machines, crowds of fragments, or other nerd deities obscures more than it illuminates. ... We can't afford to respect our own designs so much.'²⁴

A more generous account of Soares's *Face Object* might spring through the humbler category of *das Ding*. 'The jug and the bench, the footbridge and the plow', things group together as *Zeugganze* and, according to Heidegger, gather a world.²⁵ Nearer to the ground and less obtrusive than objects, things have found extensive footing through recent humanistic interpretation.²⁶ Historians of science now listen to 'things that talk'; they slice up 'thick things' while reflecting upon 'epistemic things'.²⁷ To understand the circulation of goods, anthropologists like Arjun Appadurai 'follow things themselves, for their meanings are inscribed in their forms, their uses, their trajectories'.²⁸ The hope driving these variants of 'methodological fetishism' is for insights gained from tactical indulgence of phantoms of thingly agency supposedly known by the interpreter to be illusory. It is, as leading thing theorist Bill Brown puts it, 'not an error so much as it is a condition for thought, new thoughts about how inanimate objects constitute human subjects, how they move them, how they threaten them, how they facilitate or threaten their relation to other subjects.'²⁹

This new, ecumenical spirit has opened many new avenues for thinking. Surveying the state of historical research in an article from 2009, Carolyn Walker Bynum countered the pessimistic views on the future of the humanities voiced by influential scholars a decade earlier. Specifically, Bynum cited a renewed interest in material culture and physical objects as a key feature of emerging historical work that was, in her view, stronger and more sophisticated than that produced in the 1990s.³⁰ Bynum's comments echo those of historian Randolph Starn. Projecting the future potential of museum studies, Starn has argued that the field is 'turning – or returning – from the primacy of the discourse to the priority of the objects'.³¹ Where, one might be tempted to ask, were these errant objects before their prodigal return to the mainstream of historical research? Following Bynum, we could imagine them hiding behind the thick fabric of postmodern textuality, clothed in layers of impenetrable theory, or tucked away in the folds of the various turns – linguistic, cultural, cognitive, post-structural, and so on – that have repeatedly transformed the landscape of humanistic study in recent decades.

Invited to play this imaginary game of hide and seek, art historians would have another place to look for the elusive whereabouts of material objects: *behind* images, whether painted, carved, drawn or otherwise fashioned. Here, the material presence of individual things is inscribed within the broad domains of the visual and the representational. Michael Yonan has recently argued that the two-dimensional image not only 'remains the focal point of the great majority of art-historical activity' but there also seems to be 'a tacit presumption that the study of paintings' continues to be crucial for the 'formation of art-historical canons and the conceptualization of larger interpretative methodologies'. If the visual and the representational are the arenas where art-historical theories are developed, tested, rejected and refined, the image functions as a 'fundamental precondition of art [and] the ideal subject of art-historical inquiry'.³² The heavy mantle of the image has long covered anything that can be reduced to – and interpreted in terms of – the visual and the representational: from painting, sculpture and architecture through graphic and applied arts, leaving out and behind all that is not easily susceptible to such methodological sublimation. Cloaked

and disguised as images, material objects are not just *looked at*, but also *read* and even *listened to*.

The moment is, thus, right for disciplinary self-reflection. Arguing against the current ‘hierarchization of the visual over the material’ within art history, Yonan claims that the discipline ‘has tricked itself into believing that it is a discipline of images, when really it has always been a *discipline of objects*.’³³ As the ‘return of the thing’ in neighbouring fields can help us to perceive more clearly, the term ‘object’ often acts within art history to designate ‘functional’ or ‘decorative’ artefacts – a blurry spectrum encompassing everything from products on the very outskirts of the aesthetic domain to those right at the intersection between art, design and non-art. Certain subfields within art history – in particular, histories of ancient and medieval art – have long embraced the study of material objects.³⁴ Craft theorists, antiquarians, students of collecting, museum curators, conservators, and others have given similar attention to objects and their materiality. But key distinctions of status and method remain. For if a painting is a material object just as a violin or a glass pitcher is, violins and pitchers have rarely received the kind of sustained, ingenious interpretation that, say, Braque’s *Violin and Pitcher* has since its making in 1910.³⁵ Violins and pitchers (or, by extension, chalices, cutlery, brooches, scientific instruments, and onward) have traditionally been studied either from technical perspectives or treated as indices of broader cultural practices; but only a minority of these studies has effectively attempted to recast the crystallized opposition between ‘visual/image/art’ and ‘material/object/non-art’. Reciprocally, paintings like Braque’s *Violin and Pitcher* are rarely studied in the mainstream of art-historical research as material objects.³⁶ Even as art historians have begun to engage critically and inventively with the materiality of art, fundamental, anxious tensions remain within the discipline at the fault-lines between images, objects, images-as-objects, and objects-as-images.³⁷

Face Object, we might say, embodies and exploits that cleavage. Inhabited by bees, this smooth, massy vessel contains – it portends – the future of our bodily organs. The insects cannot do this by themselves. They need to be trained, their movements have to be constrained through the vessel’s divided chambers. The materiality of the thing (the glass orb designed by Soares, blown by a skilled craftsman at the peripheries of Europe) provides the spatial and visible framework in which bee-response can register as diagnosis. To borrow Latour’s phrase, this object is filled with people and animals.³⁸ With this thing made by breath, holding breath and conveying breath-taking animal insight, we are encouraged to think with and as things, as *res cogitans*. The object’s cleverness thus emerges as the thingness of the heavy, sparkling glass resolves nonhuman agents into an image of our own mortal vitality. Unfolding before us with disinterested, digital clarity, our subjectivity is diagnosed and remapped by that image of objective data.³⁹ But, how might a concept of clever objecthood help us to elaborate these relations between beasts, beholding and the materials of thinking?

Pavilion 2: Peter’s Vision of the Unclean Beasts

In southern California’s Mission San Gabriel hangs a suite of four paintings by Jerónimo de la Portilla, an artist active in the city of Puebla in modern-day Mexico during the late seventeenth century. Portilla’s paintings depict exemplary moments of Peter’s sainthood: the miracle of Christ walking on water, Peter being freed from prison by the angel. Informed by stylistic and iconographic precedents from Europe, these images were made in Viceregal New Spain and dispatched for pedagogical use among indigenous populations of what is now California. One of these paintings,

however, is particularly curious (plate 2). Portilla shows Peter kneeling at the centre of a verdant landscape; the saint's right leg and hand stretch forward as he turns his head parallel to the picture-plane. Rooted in place by the earthy arc of his mantle, Peter gazes upward at an angelic visitation descending from above. With the strange sheet unveiling around the saint effectively splitting his body from his haloed head, the beholder can infer that Portilla's picture is making visible visionary sights, which would otherwise be available to saintly eyes alone.⁴⁰ According to the corresponding biblical text, what Peter saw at Joppa was:

2 Jerónimo de la Portilla, *Peter's Vision of the Unclean Beasts*, c. 1690. Oil on canvas, dimensions unknown. San Gabriel, CA: Mission San Gabriel. Photo: © Ann Hadlock.

... something like a large sheet coming down from heaven, being lowered by its four corners; and it came close to me. As I looked at it closely I saw four-footed animals, beasts of prey, reptiles, and birds of the air. I also heard a voice saying to me, 'Get up, Peter; kill and eat.' (Acts 11:5–8)

3 Jeremias Falck after Domenico Fetti, *The Vision of St Peter*, from the series *Cabinet Reynst: Variarum imaginum a celeberrimis artificibus pictarum Caelaturae*, c. 1655–60. Engraving, 419 × 290 mm. London: British Museum (AN816096001). Photo: © Trustees of the British Museum.

Recalling the ancient food taboos, Peter is reluctant to follow this otherworldly injunction to eat strange beasts that creep on their bellies and fly through the air.⁴¹ He acquiesces, though, once he interprets the divine command as part of a broader need to mix with the Gentiles he is aiming to convert. Such a theme would certainly have had relevance to the colonial projects conducted at Mission San Gabriel in the later seventeenth century.

Conventional as this didactic function is for colonial art, the pictorial means by which Portilla has represented Peter's vision are striking (plate 3). As visualized in an





4 Anonymous, engraving of a chameleon, from Claude Perrault, *Mémoires pour l'histoire Naturelle des Animaux*, trans. Richard Waller, London, 1688, page 16. 198 x 140 mm. London: Royal Society. Photo: © The Royal Society.

engraving by Jeremias Falck from around 1660 that follows well-established conventions, Peter's visionary sheet traditionally acted as an improvised satchel holding an ark of exotic animals in all their volumetric density.⁴² Portilla, however, inverts this cascade of visionary cloth, cinching its billowing folds in the cherubic hands of the angel at the crest of the picture. Consequently, Portilla's animal menagerie reads as flattened into the visionary sheet, not supported by it. Only slightly do the two snakes to the upper left of Peter's head project off the undulating surface, leaving a ribbon-thin tracery of shadow beneath their wriggling bodies.

Given the substantial contacts between later seventeenth-century Puebla and Jesuit intellectuals in Europe, it is tempting to speculate that Portilla or his clerical advisers might have taken inspiration for this rendering from contemporaneous scientific print-culture (plate 4).⁴³ In his *Mémoires pour servir à l'histoire Naturelle des Animaux* (1671–76), Claude Perrault was using the device of the draped sheet to compress visualizations of creatures in radically different states, juxtaposing a view of a chameleon in its habitat with representations of its internal systems on the sheet directly above it. As its tacked, upper corners and curled, shadow-projecting lower edges demonstrate,

this sheet is not just vertically 'above' but also on top of our view of the chameleon's environment. We are thus looking at a flattened sheet representing features of a beast not usually accessible to human eyes (that is, chameleon innards), which has itself been laid or affixed onto a second picture of the target-beast in its environment. Because this is representation on top of representation, relations between the pictures necessarily stand outside of the fictional world of the tail-tangled chameleon. They exist exclusively for the beholder.

Whether or not Jerónimo de la Portilla knew these conventions from period scientific prints, his painting on cloth effectively uses their structures to articulate a theory of the cloth picture. We know that painters in early modern Europe were keen to assay relations between the content of holy visions and the materiality of the miraculous cloths on which they occasionally appeared.⁴⁴ And, in later seventeenth-century Puebla, Portilla would certainly have been familiar with the legend of colonial Latin America's most famous 'magical cloth', the *Virgin of Guadalupe*.⁴⁵ Working on cloth himself in the Mission San Gabriel Peter series, Portilla's depiction of the visionary sheet thus becomes a site for reflection upon the nature of painting. Like Peter's magical cloth descending from heaven, so Portilla's canvas claims, painting is an art able to show us that which is otherwise hidden. Following the oft-repeated adage of Alberti, not only does it allow the viewer to see the image of those who have departed, but painting can simultaneously make public holy visions otherwise available to saints' eyes only. This miraculous art perpetrates its magic by creating a peculiar variety of spatial relation to the entities it represents. Unlike Falck's fiction whereby the visionary drape cradles a small zoo, Portilla's sheet gives its beasts a decidedly non-sculptural presence.⁴⁶ The

figures appear to float on or slightly in front of the flattened ground of their fabric support, which itself hovers in the air on angelic wings. Whereas such a mediating sheet functioned only for the eyes of the beholder in contemporaneous scientific illustrations, Portilla places this meta-picture within the dominant fiction of his painting. It is to this bewitching sheet that we (in Sandoval's cloth pavilion) and Peter (inside the cloth painting) incessantly look.

Now, were we to discover this kind of reflexivity in, say, Velázquez's great Sibyl (Meadows Museum, Dallas), we might readily read its dripped stain of shadow that runs like a puncture from the maiden's finger as a virtuosic gesture – a telling index of Velázquez's harnessing of facture as a prescient insight into the nature of painting or a brilliant registration of a 'self-aware image'.⁴⁷ Our surprise at discovering an ingenious theory of painting embedded in Portillo's vision of St Peter, so revisionist scholarship might counter, derives only from dominant, long-standing prejudices regarding the supposed intellectual poverty of colonial art.⁴⁸ Yet, it seems besides the point to claim that Portilla intentionally elected to stage this ingenious meditation on the art of painting in a work that was to be dispatched to a far-flung missionary outpost or that, by reconstructing this theory, we should thus look upon Portilla's painting as a great work of art. More productive would be a category of analysis enabling us to examine instances where, intentionally or not, an object seems to spell out a theory of itself rooted in the means of its making. If the category of the clever object provisionally fits this bill, how should we understand the relation of that materiality to dominant histories of art, colonial or otherwise? Might there indeed be forms of historical narrative proper to clever objects?

Split Loggia I: Materiality

Just as the floating magic of Peter's sheet stakes out a theory of Portilla's material, so Carolyn Walker Bynum observes that 'materiality is a problem as well as an opportunity'.⁴⁹ Can materiality function as a diagnostic site for rethinking the place of objects in the disciplinary discourse of art history? As observed by Joseph Koerner more than a decade ago, the discipline of art history remains substantially divided between those who 'study what objects *mean* and those who study how objects are *made*'.⁵⁰ In that schema, 'meaning' typically derives from cultural hermeneutics, while 'madness' remains the province of technical analysis. Koerner argues that attention to facture or (as he calls it, *factura*) as a distinguishing feature of art objects may help to turn attention from aspects *within* things to things themselves.

The problem of art's materiality is presently being framed with increasing urgency in technical art history, an interdisciplinary field of study that brings together art historians, conservators and conservation scientists. Here, materiality is primarily understood in terms of making procedures and physical properties of works art. Technical art historians ask questions such as: Has the object been repainted? Did more than one artist produce the work? How did the artist achieve a particular effect? Researchers working in the field gather evidence from sophisticated methods of examination including cross-sections and chemical analysis of paint samples, dendrochronology, X-radiography, infrared reflectography and varieties of 'hands-on' investigation often directed toward the conservation or restoration of objects.⁵¹ Traditionally geared towards museum professionals and described by one of its leading practitioners as 'an enhanced and more scientific connoisseurship', technical art history offers an exemplary model of 'object-intensive' art investigation.⁵² In most cases, however, its practitioners are little concerned with what objects mean in the sense designated by Koerner. That is, technical art history

can often read as strangely disjointed from the hermeneutic concerns of recent art history, which has been so intent upon destabilizing notions of ‘meaning’ dependent on conceptions of artistic intention and cultural expressivity.

Departing from the direction advocated by Glenn Adamson in his response to this volume, Michael Yonan has recently argued in favour of a ‘fusion of art history and material culture studies’.⁵³ The latter, according to Yonan, is a ‘true transdiscipline in which a great diversity of objects, paired with a wide selection of interpretive modes, results in seemingly limitless potential for understanding things and what they might mean or have meant for different communities and individuals in specific settings.’ Yonan argues that ‘art history has much to learn from the interdisciplinary practices of material culture studies’ and suggests that ‘a more complete synthesis’ between the two scholarly fields could lead art history to ‘play a greater role in the broader scholarly examination of the social lives of objects’. Here, we are on the side of those who study what objects mean, although Yonan argues that closing the gap between art history and material culture may help to counter ‘art history’s alignment with and partial transformation into visual culture’ making the *materiality* of objects ‘the rightful focus’ of art-historical inquiry.

This reconceptualization of art history as material culture may come at a price. Reconstructing the material history of, say, a medieval silver-gilt statuette that was repeatedly enlarged by different individuals at different times, then mapping that history onto a broader social and functional backdrop necessarily requires treating the statuette as a material expression of a wider cultural landscape. ‘In everyday objects,’ so Adamson encourages below, ‘people from the past unknowingly stored away impulses and desires that they couldn’t quite admit to themselves.’ Yet, the potential problem with material culture is that it tends to prioritize the ‘culture’ at the expenses of the ‘material’, positioning the latter as one specific manifestation of the former. Where we first saw evidence of physical alteration we now see evidence of social interaction, cultural customs, and corporate practice. The much-vaunted project of a ‘social life of things’ teeters precariously here, threatening to collapse into the social life of people. Suddenly, to put it a different way, the statuette is less a sculpture than an *instrument* of self-fashioning through which patrons construct their social identity, signal their wealth and piety, promote their position within a group or a community. The kind of narrative that this approach entails often encourages us to subordinate our understanding of the specific material properties of objects to the understanding of the broad religious and historical contexts that influenced their production and use. Material culture studies thus faces the same predicament as does the field of visual culture. That is, both models can be advantageous if, as Carol Armstrong has put it, ‘what one wants to give an account of is *culture at large* rather than particular cultural objects’.⁵⁴

Within the domain of visual culture, the subordination of the singular to the general often occurs via a reduction of the visual to the textual. ‘Text’, writes Armstrong, is ‘the mother-model for utterances, performances, fashionings, and sign collocations of all kinds.’ In this sense, the textual model ‘speaks to an indifference to questions of *difference* – an indifference, even a hostility, to thinking that there might be any foundational differences between media, kinds of production, or modes of sign, or that those differences might matter to either the producer or the consumer of a given object.’⁵⁵ Perhaps surprisingly, a similar indifference can be detected in the very notion of ‘materiality’ or, at the very least, in the way the notion is conceptualized and used in much interdisciplinary work on material culture. Anthropologist Tim Ingold provocatively asks, ‘what academic perversion leads us to speak not of *materials*

and their properties but of the materiality of objects?’ Ingold elaborates the point this way: ‘The concept of materiality, whatever it might mean, has become a real obstacle to sensible enquiry into materials, their transformations and affordances.’⁵⁶ To reverse the emphasis on the materiality of objects as against the properties of the materials affects the way we think about things and write about them. The cultural narratives of the objects examined in this collection are reorganized, disrupted and reconstructed in relation to the constraints and possibilities – whether real, perceived or imagined – of the materials and material conformations of the objects themselves. Fibres and threads, fabrics and pixels, paper and skin, leather, onions and clay, glass and silver, wood, metal hinges and paint not only make the objects of our inquiry; they steer and structure the logic of our own thinking about them. Ingold claims that ‘the properties of materials are not fixed attributes of matter but are processual and relational.’ They emerge through an object’s ‘involvement in its total surroundings – including you, the observer – and from the manifold ways in which it is engaged in the currents of the lifeworld’. Ingold concludes with a telling mandate: ‘To describe these properties means telling their stories.’⁵⁷

Split Loggia 2: Narrative

In his *Principles of Art History*, Heinrich Wölfflin articulated a crucial premise for art-historical narration. ‘Every artist finds certain visual possibilities before him, to which he is bound’, Wölfflin wrote: ‘Not everything is possible at all times. Vision itself has a history, and the revelation of these visual strata must be regarded as the primary task of art history.’⁵⁸ Writing this history of the eye would proceed via Wölfflin’s famous ‘art history without names’; specific artworks would be treated formally and comparatively, building ‘units of style’ by juxtaposing ‘type with type’.⁵⁹ Embedding accounts of discrete objects made by individual makers within broader considerations of ‘the style of the school, the country, the race’, properly disciplined art history had to be generalizing, normative. ‘The course of the development of art ...’, as Wölfflin put it, ‘cannot simply be reduced to a series of separate points.’⁶⁰

Whether chastened by Ernst Gombrich’s passionate critique of the ‘totalitarian habits of mind’ inculcated by analysing art through such racialized generalizations or simply driven by the professionalizing need for ever-increasing specialization, recent research has turned this situation around almost completely.⁶¹ Unabashed, case-centred particularism is practically a defining characteristic of the interdisciplinary literatures devoted to object studies, thing theory and material culture.⁶² But, is this the mode of narration proper to clever objects? Put differently, what form of stories do clever objects tell? One way to consider the problem might be to locate the true subject of clever-object-histories in and as their modelling of object-relations (plate 5). As is lucidly visualized in a table from his 2004 *What do Pictures Want?*, W. J. T. Mitchell exemplifies this approach by schematizing types of ‘animated icon’ within a grid of analytic, geographical and historical coordinates. The discourse of the idol can thus be plotted in the ancient Mediterranean, the fetish amidst European colonial exchanges with Africa during the early modern period, and the totem through modern contacts with native peoples of North America. Narrative focus in this mode might attend less to the specificities of any particular clever object than to the evidence they could provide toward illuminating features of clever objecthood as a critical category. Enunciated in the work of globe-trotting theorists like Baudrillard (thematized keenly in Rachel Wells’s contribution), the clever object would presumably be mapped into such a taxonomy as a postmodern, globalized creature with its privileged manifestations in gadgets networked to the world wide web and

Type of Animated Icon	IDOL	FETISH	TOTEM
Language	Hebrew, Greek, Latin	Portuguese	Ojibway
Period	Ancient, Classical	Early Modern	Modern
Ritual Practice	Worship	Obsession	Festival, Sacrifice
Theology	God of Monotheism	God of Polytheism	Ancestor Worship
Spectator	Mass Public: Politics	Private: Sex	Tribal Identity
Type of Art	Religious Figure	Private Adornment	Public Monument
Body Type	Corporate, Collective Body	Body Part, Member	Animal, Plant
Biblical Idolatry	Golden Calf as Idol	Gold Earrings Made into Calf	Calf as Totem
Place, Site, Landscape	Egypt, Israel	Africa, Greece	America, Australia
Drive	Scopic	Phallic	Vocative
Sign-type	Icon	Index	Symbol
Register	Imaginary	Real	Symbolic
Ritual Roles	Sacrificer, Priest	Wound	Substitute Victim
Discourse	Theology	Marxism, Psychoanalysis	Anthropology
Perversion	Adultery	Sado-masochism	Incest
Economic Dimension	Production	Commodity	Consumption
Literary Source	Bible	Folklore	Mythology
Philosophical Position	Idealism	Materialism	Animism/Vitalism
Ritual Violence	Human Sacrifice	Mutilation	Animal, Vegetable Offering
Relation to Individual	God of Nation	Private Possession	Friend, Companion, Kin
Epistemological Status	Object	Thing	Other

5 'Taxonomy of "Animated Icons"', from W. J. T. Mitchell, *What Do Pictures Want? The Lives and Loves of Images*, Chicago, 2005, page 195.

other systems of global communication: smart phones, Latour's 'immutable mobiles' or what theorist Julian Bleecker calls 'blogjects'.⁶³

Yet, Mitchell's scheme looks positively modest when compared to the recent work of James Elkins, which takes taxonomic pointillism to gleefully polemical extremes. For projects like *Visual Practices across the University* (2007), Elkins assembled brief statements from researchers in thirty university departments, explicating how they make and use images in highly technical terms. 'Discontinuous, "inappropriately" factual, surprisingly technical, "particulate", apparently under-theorized,' these interventions are, Elkins claims, '... exactly what I think will produce a genuine advance in theorizing the visual, an advance that will propel visual studies out of the humanities and into the wider practices of the university.'⁶⁴ In an equally iconoclastic mood, Elkins describes his *Six Stories from the End of Representation* as 'a contribution to no particular discipline, and I hope it entirely fails to bring any image-making practice into the domain of any other.'⁶⁵ How clever objects wreck narration in any discipline daring to interpret them would, we can imagine, feature prominently in analyses conducted in this spirit.

To those keen to retain a greater degree of art-historical allegiance, however, the narrative mode of the 'case study' would seem especially appropriate to clever objects. After all, as Jacques Derrida observed, 'object' and 'case' share a common directionality; both derive etymologically from that which is thrown down before us.⁶⁶ Expanding upon this point, literary historian James Chandler notes that 'the word case, as its root suggests, has to do with falls and befallings, with the world of chance and contingency and the positing of worlds – normative orders – against which chance and contingency might be established as such.'⁶⁷ In his expansive *England in 1819*, Chandler traces the genre of the case study favoured by his own New Historicist-informed scholarship to modes of narration developed in Romantic literature, insisting upon a reflexivity between the narrative means of the historical

interpreter and the target of that interpretation. Taking this line seriously, the form or style of narration proper to a specific clever object would thus need to be derived from the historical circumstances of its milieu – an approach that Katie Scott brilliantly activates in this volume. What would matter most to the narrator of clever objects in this mode are less the comparative relations between historically embedded categories of object-relations than exploring and exploiting isomorphisms between artifact and narrative forms.

At the same time, clever object histories might equally be told in such a way that we perceive not only their rapportage on a category of critical analysis or their performative engagement with the target-object, but how their stories interpenetrate into dominant period narratives. Shadow histories to the normative modes of disciplinary narration demanded by Wölfflin, these stories might constitute what Branden Joseph (drawing upon Gilles Deleuze and Félix Guattari) has recently elaborated as ‘minor history’. Against official History, Joseph argues, minor history ‘does not proceed from point to point in clearly articulated relations of development ... nor is it concerned primarily with adding figures to movements, making great authors out of them, or posing them as aesthetic models to be followed.’⁶⁸ Like Byron Hamann’s account of a Tlaxcalan lienzo that utilizes European iconography and indigenous ruses in an as-yet unsuccessful bid to undermine Spanish colonial rule, minor histories expose and destabilize the constitution of official narration by posing ‘a field of continual differentiation: specific networks and connections’.⁶⁹ What would matter to the narrator of clever objects would be less relations between critical categories or marriage of object and means of analysis, than how the target-artifact ruptures the dominant historiography of its period. As with the parasitism visited by Soares’s objects upon conventional medicine, so a ‘minor history’ of clever objects could illuminate privileged categories of art-historical narration – artist, object, beholder, aesthetics, intelligence – as entangled with their seemingly peripheral epigones.

Pavilion 3: *Paradoxymoron*

Hung in a lower foyer of the British Library is a relief sculpture by Patrick Hughes entitled *Paradoxymoron* (plate 6). When considered casually, the work appears to be a painting: blocks of colourful, book-lined shelves cluster together, casting shadows across a tiled floor that recedes dutifully backward in perspective. In actuality, this supposedly receding floor and ceiling are projecting wooden panels cut in chevron pattern. Jutting diagonally from the wall, this faceted frame holds six trapezoidal panels painted in an inversion of conventional perspective (plate 7). Consequently, the features in the illusion that appear to be furthest away (the distant bookcase parallel to the picture plane at left) are actually closest to the beholder; those that seem to be nearest optically (the book cases at the edges) are really farthest away. The upshot of all this is that once the static beholder moves, the perspectival illusion is ruptured. The bookcases seem to dance, buckle and slide. ‘Picture’ becomes ‘moving picture’ and, if we walk far enough to the side, that ‘movie’ becomes ‘sculpture’. What is assumed to be a conventionally perspectival, two-dimensional surface depicting three dimensions illusionistically, turns out to be a three-dimensional surface masquerading as a two-dimensional representation of three dimensions. The initial recognition of this gap between expectation and fact can be amusing. Certainly, as is attested by the protective belts requested by the curators, Hughes’s work is expected to attract substantial attention once installed in Sandoval’s third pavilion.

When tracing relations amongst the imitative arts, Enlightenment *philosophe* Adam Smith located a key commonality between painting and sculpture in the pleasures

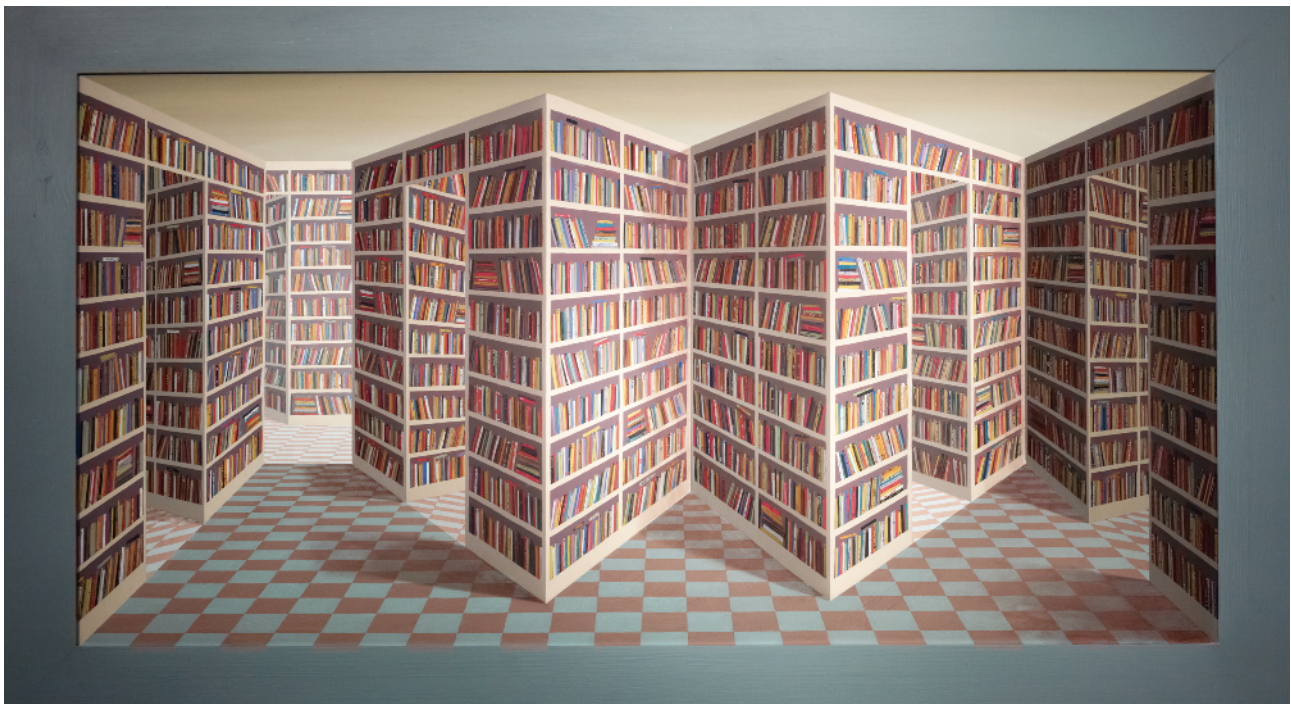
of ingenuity. 'That pleasure', Smith wrote, 'is founded altogether upon our wonder at seeing an object of one kind represent so well an object of a very different kind, and upon our admiration of the art which surmounts so happily that disparity which Nature had established between them.'⁷⁰ If sculpture delights when recalcitrant marble becomes pliable flesh, so painting thrilled the Enlightenment viewer as fluid pigment blossoms into verdant landscapes of forest greenery. For Smith at least, this yawning gap between painting's material means and potential representational yield explains both its broader range and intellectual superiority to sculpture. Smith puts the point this way:

In Statuary, the means by which the wonderful effect is brought about appear more simple and obvious than in Painting; where the disparity between the imitating and the imitated object being much greater, the art which can conquer that greater disparity appears evidently, and almost to the eye, to be founded upon a much deeper science, or upon principles much more abstruse and profound. ... And it is upon this account, that in Painting we are often delighted with the representation of many things, which in Statuary would appear insipid, tiresome, and not worth looking at.⁷¹

Whatever its merits as a spectacle of observation, a view into a library crowded with bookcases could thus readily please in painting because of the extensive disparities between that target of depiction and the humble, pasty means by which such a picture would be fashioned.

What are we to make of this intentional confusion of painting and sculpture undertaken in *Paradoxymoron* where painted wood, curated space and a complex scenography of library lighting provide the sculptural illusion of a painting of a library?⁷² We might say that Hughes's work both answers to and undermines the expectations of viewers habituated to conventions of Renaissance perspective. Like the 'pictorial intelligence' that Svetlana Alpers and Michael Baxandall have located

6 Patrick Hughes,
Paradoxymoron, 1996. Oil on
board, dimensions unknown.
London: British Library
(BLWA 15). © Patrick Hughes.
Photo: © The British Library
Board.





7 Side view of Patrick Hughes, *Paradoxymoron*, 1996. © Patrick Hughes. Photo: © The British Library Board.

in the art of Giambattista Tiepolo, these pieces expose the ‘bossiness’ of fixed-point perspective as they activate the agency of the beholder in peculiar ways. ‘By liberating us from control,’ so Alpers and Baxandall have written of Tiepolo, the object ‘... makes us self-aware – of our movements and of our proclivity to make sense.’⁷³ *Paradoxymoron* firmly locates our proclivity to make sense in the domain of the visual. Is the thingliness of things, as opposed to the visibility of images, truly resistant to acts of contemplation and theoretical scrutiny? Unlike painted things, material objects are either left to their own apparent conceptual lethargy or, in the words of Ingold, ‘are brought back to life in the dreams of theorists by conjuring a magical minddust that, sprinkled among its constituents, is supposed to set them physically in motion.’ Ingold’s minddust has come to be known in the literature as ‘agency’ and, as he puts it, ‘great expectations have been pinned upon it.’⁷⁴

Where does this leave *Paradoxymoron*? If, following Alfred Gell (one of the most important recent theorists of art’s agency), the tricks played by this work are entrapments diagnosing and exploiting a ‘natural history’ of human weakness, so it simultaneously exposes perspective’s mechanics, defamiliarizing and rematerializing them.⁷⁵ The success that Gell’s *Art and Agency* has enjoyed among

art historians suggests that agency may have the potential to unlock the conceptual affordances of material objects along these very lines.⁷⁶ And yet, as with the merging of art history and material culture, the integration of agency into our explanations may come at a substantial price, and indeed a number of critical voices have begun to question its conceptual legitimacy. To put this complex question in the most blunt and abridged way: objects are different from people – their social and material lives are not identical to ours – and it may not be always possible to interpret across the mass of events, individuals and artefacts that make up the subject of our enquiry. Umberto Eco has described what he calls ‘lines of resistance and possibilities of flow’, which extend across the continuum of meaning. ‘As in the grain of wood or marble’, these lines ‘make it easier to cut in one direction rather than another.’⁷⁷ ‘Perhaps mobile, vagabond,’ Eco argues, ‘these lines of resistance’ will eventually ‘cause the discourse to seize up, so that even in the absence of any previous rule there arises, within the discourse, a phantasm, the hint of an anacoluthon, or the block of an aphasia.’⁷⁸

Resistant and recalcitrant, ‘irreducibly particular and subversively strange’, material objects can just be the source of that unexpected aphasia. They offer, as Carol Armstrong puts it, ‘a pocket of occlusion within the smooth functioning of systems of domination [or] a glitch in the great worldwide web of images and representations.’⁷⁹ Perhaps, then, rather than cutting across the grain of an object – blurring distinction between artefacts and people, or recasting the thingly as the visual, the visual as textual so as to disguise resistance, occlusions and glitches – we should try to weave the recalcitrant warp of intractable material objects into the declarative weft of our thinking about them. Like Caroline Arscott’s tapestry, the fabric of a clever object is slowly built by melding and interlacing material threads and conceptual representations, thinking and things.

Loggia 3: Cleverness

At the conclusion of a tortured essay defending the enduring distinction between artworks and ‘mere’ objects, philosopher Arthur Danto proposes the following assertion: ‘The material object that is an artwork is the best picture we can have of the meaning it expresses.’⁸⁰ Non-functional, made through processes that evade rules and thus teaching, an artwork is unlike an everyday object insofar as it instantiates – or, better, insofar as it is – its own theory. ‘Before the work of art,’ Danto claims, ‘we are in the presence of something we can grasp only through it.’⁸¹ If clever objects are not necessarily art, what might we say of their cognitive claims? How should we understand their cleverness? And can the shadow cast by the foil of *Paradoxymoron* help to bring out those clever features more clearly?

Even if we leave aside the growing literatures on the aesthetic import of cognitive neuroscience, these questions are highly relevant given the numerous recent appeals to artistic ‘intelligence’ privileged by leading artists and art historians.⁸² Writing against the tide of what he perceives to be the levelling, pernicious effects of visual culture studies, Thomas Crow has called for renewed attention to ‘the intelligence of art’ as it emerges at ‘a gap, a zero point, or a disruptive substitution taking place inside a work of art from which issues a continual turning over or transformation of its defining elements.’⁸³ Crow’s approach aims to show how, through interpretation as salubriously violent as the rupturing objects it studies, art ‘bears within it the deepest, irresolvable contradictions of a society.’⁸⁴ Against Crow’s precipitous slice through social structures by the cleaver of art, ‘pictorial intelligence’ for Alpers and Baxandall plays a quieter game – murmuring like the ‘liquid intelligence’ that contemporary

photographer Jeff Wall hears hidden below the metallic clicks of photography's dry, mechanical production.⁸⁵

No more clearly have these subterranean, even subversive dimensions of makers' knowledge been articulated than in recent scholarship on the early modern period. By Pamela H. Smith's telling, the 'artisanal epistemology' forged between collaborating artists, scholars and naturalists in the bustling commercial cities of the Northern Renaissance amounted to insurrection. Contrary to the cultural hegemony of Classical antiquity and bookish authorities taught in universities, Smith's practitioners claimed 'that nature is the primary source of knowledge, that certain knowledge can be extracted by engaging with nature, and that this engagement takes place through bodily encounter with matter.'⁸⁶ But, amidst Renaissance cultures that looked down upon manual labour, artful ingenuity could also proceed along still more stealthy, ambidextrous paths. Excluded from the charmed circle of Giorgio Vasari's noble arts of *disegno*, Michael Cole has shown how the 'goldsmith's intelligence' found truly ingenious defence in masterworks like Benvenuto Cellini's famous *Saltcellar*. Capable of flattering royal patrons and amusing witty humanists, Cellini's objects not only materialized sophisticated arguments about their power and invention in miraculously crafted form, but they effectively anticipated and entrapped their would-be detractors.⁸⁷

But, as Katie Scott observes here, where intelligence is a superlative without limit, cleverness is a wily business ever threatened by the danger of excess. It always walks what David St Hubbins called that elusively 'fine line between clever and stupid'.⁸⁸ Perhaps for this reason, the variety of practical cunning known in ancient Greece as *metis* has proven particularly instructive for our group. *Metis*, as Marcel Detienne and Jean-Pierre Vernant argue, is less a species of reason than intelligence situated in and directed toward practical efficacy: 'It may involve multiple skills useful in life, the mastery of the artisan in his craft, magic tricks, the use of philtres and herbs, the cunning stratagems of war, frauds, deceits, resourcefulness of every kind.'⁸⁹ Handy and underhanded, *metis* can be a dirty cheat or the savvy act by which a weaker agent bests a superior rival by seizing a momentary advantage. Like 'the glittering of a weapon, the dappled hide of a fawn or the shining back of a snake mottled with darker patches', as Detienne and Vernant put it, the cunning of *metis* is constantly in flux, changing in response to its situation. Commensurately, Byron Hamann's essay notes, the word 'clever' appears in English in the sixteenth century from 'the Middle English *clivers* (claws, talons, clutches), in the sense of "nimble of claws, sharp to seize" ... a form that emerged to do a specific kind of shady work, turning passers-by into its vehicles.'

The lesson for a study of clever objects is clear: if keenly attuned to their moments in time like Crow's art and as thoroughly invested in matter as the pictorial intelligence envisaged by Alpers and Baxandall, the varieties of cleverness instantiated by our objects are thoroughly opportunistic and indifferent to morality, to matters of right and wrong. This, then, helps to clarify their relation to *Paradoxymoron*. Not only do the shifty tactics of clever objects outstrip the singular trick of Hughes' work, but they forego the lesson it endlessly teaches. *Paradoxymoron* models human weakness; it sits in wait, pouncing and scolding us for falling prey to its illusions. Although they too can entrap, instruct and interpellate, these objectives seem somehow incidental to clever objects whose nimble quickness runs like a torn stocking. With that cagey characterization in mind, the introduction's ultimate section can now survey the essays themselves.

‘Planetarium’

Let us imagine that Harry Sandoval was an accomplished, if eccentric, amateur astronomer. In the compound of reinforced concrete bunkers he built in southwestern New Hampshire, Sandoval designed ceiling paintings with curious astronomical function. Perhaps inspired by the Meso-American aesthetics of the scarcely visible he had encountered through Kubler, Sandoval painted these fugitive images – and then required all visitors to view them – while wearing night-vision goggles. ‘My paintings are telescopes,’ he wrote in a late journal, ‘I see the stars with them.’ Although Sandoval’s aspirations for the planetarium sketched in his juvenile architectural design are shadowy, we have come to think of that darkened dome flickering into life through our volume’s contributions. Here is what you will find in the pages that follow.

Francesco Lucchini opens the collection with an inquiry into a silver-mounted, miraculously unbreakable drinking glass from early fourteenth-century Padua. Known as Aleardino’s Glass, the vessel took its name and status from the fact that it remained miraculously intact despite being cast to the ground by a heretical knight named Aleardino who had publicly challenged the sanctity of St Anthony of Padua. Taking Aleardino’s wonder at his unbroken glass as a point of departure, this contribution explores the interlacing of material properties and conceptual representations that underlies and informs our understanding of the vessel. Lucchini considers the status of the glass as a conceptual work and investigates the relationship between the physical properties of the vessel and its visual attributes to explore the notion of difficulty – material difficulty and difficulty of interpretation – mobilized by a glass that does not break. As Lucchini argues, the silver mount encasing the drinking glass does not protect it or remove it from the realm of empirical testing. Instead, this metal frame advances a claim that the object’s power derives in part from pressing us with the question of its status, offering itself to our ongoing testing, evaluation and, ultimately, interpretation. The cleverness of Aleardino’s Glass thus emerges from an intractable tension between the seemingly mute materiality of the glass and the conceptual representations that the object either accommodates or conspires to formulate in the mind of its viewer.

No less wily is the painted, cotton cloth at the centre of Byron Hamann’s essay ‘Object, Image, Cleverness: The *Lienzo de Tlaxcala*’. Hamann explores how the *Lienzo de Tlaxcala* told the story of the ‘Conquest of Mexico’ as seen by the Tlaxcalan allies of Hernán Cortés: that is, from a Native American point of view. Digitally reconstructing this object made in Mexico around 1552 but then lost in Europe during the 1860s, Hamann imagines the lost *Lienzo*’s cleverness by considering the ways it manipulates both materiality and iconography to function as trap and trapdoor, now and in the sixteenth century. Thematising its ‘polymorphous physicality’ – its capacious referencing of Meso-American visual and divinatory media – Hamann discloses the forces that made the *Lienzo*’s images as irresistible to its period viewers as ‘a giant staring eye’. But, now that this cloth has been recreated virtually using digital technologies, this polymorphous physicality produces unexpected consequences. This trapdoor-like aspect of its composition raises a series of issues about the *Lienzo*’s present ontological status and its relation to a long history of appropriations of Western technologies in the service of Mesoamerican visuality.

At the eastern edge of the planetarium, Matthew Hunter’s ‘Picture, Object, Puzzle, Prompter: Devilish Cleverness in Restoration London’ explores how English experimental philosopher Robert Hooke drew, cut up, engraved, glued together and then ‘dreamt with’ a paper model of a telescopic micrometer in the later 1660s.

Hunter's essay uses Hooke's cut-paper object – and its origins at a nexus of manual skill, technological competition and frankly wild speculation by leading French and English agents of the early scientific revolution – to theorize 'clever objecthood' as an analytic category. Conceiving a clever object as both a puzzle and a prompter, Hunter reconstructs the ways in which Hooke's paper micrometer emerged within a sequence of landmark yet self-confessedly cruel vivisection experiments contemporaneously performed before the Royal Society of London. Appropriating techniques from fold-out anatomical prints, the essay shows how Hooke crafted a moveable, paper object that not only represented the micrometer, but enabled him to reduce the visual/ethical obstacles generated by his vivisections to the tractable dimensions of a puzzle, in the sense theorized by Thomas Kuhn. Hunter then traces the shift in Hooke's interest in this object from its target of representation (the machine) to the material from which it was made (paper), a movement culminating in an act of conceptual modelling where Hooke envisions the generation of animal bodies as the mechanical production of paper. Unlike the overwhelming, transformative powers associated (then and now) with art-objects, a clever object like Hooke's micrometer needs to be seen as characterized by its 'lightness', its ongoing availability for thinking. Instrument of problem-solving and evolving generator of problems itself, a clever object in this reading is both puzzle and prompter, both trap and trapdoor.

Katie Scott's 'Screen Wise, Screen Play: Jacques de Lajoue and the Ruses of Rococo' tackles a similarly simple, but operationally complex technology: the folding screen. Prospering as a new item of furniture in the first decades of the eighteenth century, the Rococo screen's manifold surfaces were quickly colonized as supports for visual elaboration as sophisticated as the social functions it served. Scott's subtle, stealthy essay analyses a screen painted by Jacques de Lajoue in the mid-1730s that stood in the Paris print shop of Gabriel Huquier. Drawing upon Gell's reading of traps as works of art, Scott interprets the ornamental tactics deployed in and on Lajoue's trap-like screen even as it functioned as a mercantile aid and articulated a commercial ideology. Scott makes these arguments by exemplifying the form of the screen it seeks to explain. Not only is the essay written in twelve parts that correspond to the twelve faces of Lajoue's screen, but it attempts to emulate the aesthetic and genre-like properties of the object as well. Each 'leaf' or section is subdivided into three, corresponding to the tripartite divisions of the arabesque composition, and runs to the same length: the number of words, notes and illustrations are all multiples of twelve. The commitments of this deft interpretive feat, which even extends down to the choice of a telling typeface (Trebuchet MS, designed by Vincent Connare for the Microsoft Corporation in 1996), throw the essay into a high-wire balancing act between text and context – between the ideological concerns and priorities of a social history of art to which the piece consciously subscribes and the alluring formal properties of the object to which its descriptive language cleaves so ingeniously.

In 'William Morris's Tapestry: Metamorphosis and Prophecy in *The Woodpecker*,' Caroline Arscott approaches William Morris's adoption of tapestry in the 1880s as an allegorization of the losses and gains of historical and biological processes. Arscott juxtaposes the facture of tapestry – the movement of the shuttle and weft, the gradual building up of the image – to the prophetic mode deployed by Morris in verses written on his tapestries themselves. The essay centres on the case of Morris's tapestry called *The Woodpecker* (1888), which visualizes the story of Picus from Ovid's *Metamorphoses*. Morris's bird and Ovidian thematics have telling significance given the woodpecker's importance in that key Victorian revisiting of metamorphosis,

Charles Darwin's theory of evolution. Arscott considers Morris's tapestry in light of the evolutionary morphology of form and the sequence of substitutions involved in sexual selection: the move from a reliance on the power of song to a recourse to instrumental music, as well as the use of coloured display among creatures seeking an advantage in courtship. By reading the woodpecker's traditional identity as augur alongside this new, Victorian conception of formal morphology, the essay uses the declarative and the tacit aspects of Morris's tapestry *qua* clever object to reassess the potential for the elaboration of grand themes in a form of art that seemingly abjures the grandiose theatre of human action.

Closer to the chronological present, Rachel Wells explores a similarly modest work: Fischli and Weiss's *Equilibre/Quiet Afternoon* (1984). Like Fischli and Weiss's wider oeuvre, *Equilibre/Quiet Afternoon* presents objects acting in apparent independence of a volitional subject – a theme in line with Jean Baudrillard's 'Fatal strategy' of the clever object that has triumphed over the subject. But, as Wells insightfully argues, object-agency is always presented by Fischli and Weiss's within a careful, dialectical balance between subject and object, the subject absent but subtly and humorously referenced. This delicate equilibrium motivates the improbable balance of the photographed household objects of *Quiet Afternoon*, permeating Fischli and Weiss's work and countering a Baudrillardian view of the evil, ironic cunning of the object that annihilates the dialectic of meaning. For where Baudrillard's diagnosis of 'the principle of equivalence' coupled with his theorization of 'the impossible exchange barrier' presents an essential asymmetry that tips the world into uncertainty, Fischli and Weiss conjure an improbable calibration that is as precarious as it is permanent: an equilibrium that exists without an internal equivalence. Thus, while Baudrillard suggests that all objective value has been lost in hyperreality with even use-value left subject to the logic of exchange, Fischli and Weiss's subversion of objects' traditional function results, by Wells's reading, in an equilibrium not dependent on exchangeability. And contrary to Baudrillard's conception of photography, Fischli and Weiss do not use the medium as a reassuring method of disguising the cleverness of objects. Instead, for Wells, photography emerges as a means through which to present a balance that is not reliant upon the transubstantiation of commodity fetishism, but upon an (as it were) pre-lapsarian cleverness overseen by an absent but implied creative force.

Complementing this constellation of essays cut across the dome of historical time, our planetarium is grounded firmly into the contemporary moment in two ways. First, curator Christiane Rekade presents interviews with artists Simon Starling and Ian Kiaer who both work in the tradition of the found object and the ready-made. Using existing objects, Kiaer composes new installations, while Starling generates narratives emanating from objects in what he calls 'tell-tale sculptures'. Secondly, donning the scholarly equivalent of Sandoval's night-vision goggles, design historian Glenn Adamson and philosopher of science Roman Frigg offer illuminating perspectives on the collection as a whole. Whether made from glass, cloth or wood, whether framed by pavilions or encountered as pixels, we hope that Harry Sandoval's cryptic question 'Clever Objects?' can now begin to be answered this way: 'Clever Objects!'

Notes

- 1 Compare, for example, John Summerson, *Architecture in Britain, 1530 to 1830*, London, 1953; and Helen Rosenau, *Boullée & Visionary Architecture: Including Boullée's Architecture, Essay on Art*, London, 1976. See also Jean-Michel Faïdit, 'Spheres and starry temples in the Enlightenment: Boullée's Newton Cenotaph, architectural precursor to planetaria?', *Planetarian*, December 2003, 6–13.
- 2 For more on this kind of modelling, see Kendall Walton, *Mimesis as Make-Believe: On the Foundations of the Representational Arts*, Cambridge, MA, 1990; David Davies, 'Learning through fictional narratives in art and science', in Roman Frigg and Matthew Hunter, eds, *Beyond Mimesis and Convention: Representation in Art and Science*, New York, 2010, 51–69; and Stanley Fish, *Surprised by Sin: The Reader in Paradise Lost*, Berkeley, CA, 1971.
- 3 On relations between architecture and clever thinking, see Mark Jarzombek, 'The cunning of architecture's reason', *Footprint*, 1, Autumn 2007, 31–46.
- 4 Friedrich Nietzsche, *Twilight of the Idols, or, How to Philosophize with a Hammer*, trans. R. J. Hollingdale, New York, 1990. On the necessity of reading Nietzsche 'like a loser', see Malcolm Bull, *Anti-Nietzsche*, New York, 2011.
- 5 See Miguel Tamen, *Friends of Interpretable Objects*, Cambridge, MA, 2001, esp. 137.
- 6 For a survey of objects produced through this problematic, see Michael Petry, *The Art of Not Making: The New Artist/Artisan Relationship*, New York and London, 2011.
- 7 Yves-Alain Bois, Denis Hollier, Rosalind Krauss and Hubert Damisch, 'A conversation with Hubert Damisch', October, 85, Summer 1998, 8.
- 8 Jean Baudrillard, *Les stratégies fatales*, Paris, 1983, 259–60.
- 9 Alfred Gell, 'Vogel's net: Traps as artworks and artworks as traps', in Eric Hirsch, ed., *The Art of Anthropology: Essays and Diagrams*, London, 1999, 201.
- 10 For this terminology, see Walton, *Mimesis as Make-Believe*, esp. 11–69.
- 11 This scintillating question was posed by Jason Lafountain responding to an early draft of this introduction.
- 12 Gaston Bachelard, *Water and Dreams: An Essay on the Imagination of Matter*, trans. E. R. Farrell, Dallas, TX, 2006, 106.
- 13 For a general survey of older ideas on bee-divination, see Hilda M. Ransome, *The Sacred Bee in Ancient Times and Folklore*, Minneola, NY, 2004.
- 14 Mark Jarzombek, 'Haacke's Condensation Cube: The machine in the box and the travails of architecture', *Thresholds*, 30, 2005, 99–103; and Paola Antonelli, ed., *Design and the Elastic Mind*, New York, 2008.
- 15 See Ashley S. Shaw and Adrian K. Dixon, 'Multidetector Computed Tomography', in A. Adam et al., eds, *Grainger & Allison's Diagnostic Radiology: A Textbook of Medical Imaging*, fifth edition, London, 2008, 79.
- 16 See Bruno Latour, 'Drawing things together', in Michael Lynch and Steve Woolgar, eds, *Representation in Scientific Practice*, Cambridge, MA, and London, 1990, 19–68.
- 17 On Descartes's experiment, which is recounted in 'Discourse Five' of *Optics* (1637), see John Cottingham, Robert Stoothoff and Dugald Murdoch, eds, *The Philosophical Writings of Descartes: Vol. 1*, New York and Cambridge, 1985, 166–7.
- 18 [Antoni van Leeuwenhoek], 'A Specimen of Some Observations Made by a Microscope, Contrived by Mr. Leewenhoek in Holland, Lately Communicated by Dr. Regnerus de Graaf', *Philosophical Transactions*, 8, 1673, 6038.
- 19 Leeuwenhoek, 'A Specimen', 6038.
- 20 See Immanuel Kant, *Critique of Judgment*, trans. W. S. Pluhar, Indianapolis, IN, 1987, esp. §43; 170.
- 21 Kant, *Critique of Judgment*, §44; 173.
- 22 Michael Fried, 'Art and objecthood', in Charles Harrison and Paul B. Wood, eds, *Art in Theory 1900–1990: An Anthology of Changing Ideas*, New York, 1992, 826.
- 23 See especially Michael Fried, 'An introduction to my art criticism', in *Art and Objecthood: Essays and Reviews*, Chicago, IL, 1998, 1–76. Other important engagements with Heidegger and the everyday can be found in Fried's *Absorption and Theatricality: Painting and Beholder in the Age of Diderot*, Los Angeles, CA, 1980; Menzel's *Realism: Art and Embodiment in Nineteenth-Century Berlin*, New Haven and London, 2002; and *Why Photography Matters As Art As Never Before*, New Haven and London, 2008.
- 24 Jaron Lanier, *You Are Not a Gadget: A Manifesto*, New York, 2010, 36.
- 25 Martin Heidegger, 'The thing', in Fiona Candlin and Raiford Guins, eds, *The Object Reader*, New York, 2009, 122. More broadly, see Heidegger, 'The worldhood of the world', in *Being and Time*, trans. J. Macquarrie and E. Robinson, New York, 1962, Part One: III; 91–148.
- 26 For this assessment by one of its leading practitioners, see Bill Brown, 'Thing theory', in Candlin and Guins, *Object Reader*, 141.
- 27 See Lorraine Daston, ed., *Things That Talk: Object Lessons from Art and Science*, New York, 2004; Ken Alder, ed., 'Focus: Thick things', *Isis*, 98, 2007, 80–142; and Hans-Jörg Rheinberger, *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube*, Stanford, CA, 1997.
- 28 Arjun Appadurai, 'Introduction: Commodities and the politics of value', in Arjun Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective*, New York and Cambridge, 1986, 5.
- 29 Brown, 'Thing theory', 142.
- 30 Carolyn Walker Bynum, 'Perspectives, connections and objects: What's happening in history now', *Daedalus*, 138: 1, 2009, 71–87, esp. 78–9.
- 31 Randolph Starn, 'A historian's brief guide to new museum studies', *American Historical Review*, 110: 1, 2005, 68–95.
- 32 Michael Yonan, 'Toward a fusion of art history and material culture studies', *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 18: 2, Fall–Winter 2011, 238.
- 33 Yonan, 'Toward a fusion', 240.
- 34 On this point, see Yonan, 'Toward a fusion', 240.
- 35 Among the many possible examples see Michael Baxandall, 'Fixation and distraction: The nail in Braque's *Violin and Pitcher* (1910)', in John Onians, ed., *Sight and Insight: Essays for E. H. Gombrich*, London, 1994, 398–415.
- 36 Obvious exceptions here are museum curators and conservation scientists. See, for instance, Stephen Hackney, Rica Jones and Joyce Townsend, *Paint and Purpose: A Study of Technique in British Art*, London, 1999. More broadly, see Ralph Mayer's discussion of the introduction of sand, sawdust, and other coarse materials to give paint a granular texture in the work of Braque; Ralph Mayer, 'On the material side: Recent trends in painting mediums', *Art Digest*, 24: 11, 1950, 22. For a dialogue between art historians and conservators concerning the surfaces and varnishing of paintings by Cezanne, Picasso and Braque, see John Richardson, 'Crimes against the Cubists', *The New York Review*, 16 June 1983, 32–4, followed by a series of letters which appeared in *The New York Review* on 13 October and 10 November 1984, from Caroline Keck, Herbert Lank, Stephen Miller, John Golding, Angelica Rudenstine, Robert Rosenblum, and Gustav Berger with additional responses from John Richardson regarding different philosophies and schools of thought in conservation.
- 37 For a survey of recent writings on the materiality of Renaissance art emphasizing its heterogeneity ('less an outgrowth of any single historical discourse than an unexpected point of convergence'), see Michael Cole, 'The cult of material', in Sébastien Clerbois and Martina Droth, eds, *Revival and Invention: Sculpture through its Material Histories*, Oxford, 2011, 1–15.
- 38 See Bruno Latour, *We Have Never Been Modern*, trans. C. Porter, Cambridge, MA, 1993.
- 39 For the conception of the digital used here, see Nelson Goodman, *Languages of Art: An Approach to a Theory of Symbols*, Indianapolis, IN, 1968, 161. For an influential account stressing the entwined histories of objectivity and subjectivity, see Lorraine Daston and Peter Galison, *Objectivity*, New York, 2007.
- 40 For a scintillating reading of such conventions in seventeenth-century Spanish painting, see Victor I. Stoichita, *Visionary Experience in the Golden Age of Spanish Art*, trans. A. M. Glasheen, London, 1995.
- 41 See Gillian Feeley-Harnik, *The Lord's Table: Eucharist and Passover in Early Christianity*, Philadelphia, PA, 1981.
- 42 On the influence of Netherlandish prints in colonial Latin American art generally, see *Rubens y su siglo*, Mexico City, 1998.
- 43 For a fascinating account of exchanges between Jesuits in Puebla and Athanasius Kircher in Rome during the 1660s–70s, see Ignacio Osorio Romera, *La Luz Imaginaria: Epistolario de Atanasio Kircher con los Novohispanos*, Mexico City, 1993.
- 44 See Joseph Leo Koerner, *The Moment of Self-Portraiture in German Renaissance Art*, Chicago, IL, 1996, esp. 80–126.
- 45 For a stimulating reading of the *Virgin of Guadalupe* as a central model for negotiating painterly self-consciousness in seventeenth-century

- New Spain, see Clara Bargellini, 'Originality and invention in the painting of New Spain', in Donna Pierce et al., eds, *Painting a New World: Mexican Art and Life 1521–1821*, Denver, CO, 2004, 79–91.
- 46 See Jonathan Brown, *Images and Ideas in Seventeenth-Century Spanish Painting*, Princeton, NJ, 1978, esp. 44–62.
- 47 For this kind of reading, see Michael Podro, *Depiction*, New Haven and London, 1998. More broadly, see Victor I. Stoichita, *The Self-Aware Image: An Insight into Early Modern Meta-Painting*, trans. A. M. Glasheen, New York and Cambridge, 1997.
- 48 For a vigorous rebuff to this prejudice, see Thomas B. F. Cummins, *Toasts with the Inca: Andean Abstraction of Colonial Quero Vessels*, Ann Arbor, MI, 2002.
- 49 Carolyn Walker Bynum, *Christian Materiality: An Essay on Religion in Late Medieval Europe*, New York, 2011, 121. Bynum is referring here to the problem of Christian materiality from circa 1100 to circa 1550 and in particular to the 'sophistication with which late medieval art deploys its materiality'.
- 50 Joseph Leo Koerner, 'Factura', *RES: Anthropology and Aesthetics*, 36, 1999, 5–19, esp. 5.
- 51 The above questions are taken from Andrea Kirsh and Rustin S. Levinson, *Seeing through Paintings: Physical Examination in Art Historical Studies*, New Haven and London, 2000, 2. The book provides a useful overview of the scientific examination and technical analysis of materials and techniques in western painting from the medieval through the contemporary.
- 52 Maryan W. Ainsworth, 'From connoisseurship to technical art history: The evolution of the interdisciplinary study of art', *Getty Conservation Institute Newsletter*, 20: 1, Spring 2005, 10.
- 53 Yonan, 'Toward a fusion', 243–4.
- 54 Carol Armstrong, 'Response to Visual Culture Questionnaire', October, 77, 1996, 28 [emphasis added].
- 55 Armstrong, 'Response', 28 [emphasis added].
- 56 Tim Ingold, 'Materials against materiality', *Archaeological Dialogues*, 14: 1, 2007, 3 [emphasis in original].
- 57 Ingold, 'Materials', 1; 15.
- 58 Heinrich Wölfflin, *Principles of Art History: The Problem of the Development of Style in Later Art*, trans. M. D. Hottinger, New York, 1950, 11.
- 59 Wölfflin, *Principles*, 14. For instructive readings of Wölfflin's aims and milieux, see Hans Belting, *The End of the History of Art?*, trans. C. Wood, Chicago, IL, 1987; and Frederic J. Schwartz, 'Cathedrals and shoes: Concepts of style in Wölfflin and Adorno', *New German Critique*, 76, Winter 1999, 3–48.
- 60 Wölfflin, *Principles*, 6.
- 61 See E. H. Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation*, New York, 1961, 20.
- 62 See for example, Sherry Turkle, ed., *Evocative Objects: Things We Think With*, Cambridge, MA, 2007; Alder, 'Thick things'.
- 63 See Latour, 'Drawing things together', 19–68; and Julian Bleeker, 'Why things matter', in Candlin and Guins, *Object Reader*, 165–74.
- 64 James Elkins, 'Visual practices across the university', in Frigg and Hunter, *Beyond Mimesis and Convention*, 182.
- 65 James Elkins, *Six Stories from the End of Representation: Images in Painting, Photography, Astronomy, Microscopy, Particle Physics, and Quantum Mechanics, 1980–2000*, Stanford, CA, 2008, 17.
- 66 Jacques Derrida, 'My chances/Mes chances: A rendezvous with some epicurean stereophonies', in Joseph H. Smith and William Kerrigan, eds, *Taking Chances: Derrida, Psychoanalysis, and Literature*, Baltimore, MD, 1984, 1–32.
- 67 James Chandler, *England in 1819: The Politics of Literary Culture and the Case of Romantic Historicism*, Chicago, IL, 1998, 39–40.
- 68 Branden W. Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage (A 'Minor' History)*, New York, 2008, 50. See also Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature*, Minneapolis, MN, 1986.
- 69 Joseph, *Beyond the Dream Syndicate*, 52.
- 70 Adam Smith, 'Of the imitative arts', in *Essays on Philosophical Subjects*, Dublin, 1795, 198. For a brilliant reading of Smith's ideas about ingenuity, see Neil de Marchi and Hans van Miegroet, 'Ingenuity, preferences, and the pricing of pictures: The Smith-Reynolds connection', *Journal of Political Economy*, XXXI, 1999, 397–412.
- 71 Smith, 'Imitative arts', 200.
- 72 For lighting and installation instructions, see <http://www.patrickhughes.co.uk/lighting.htm> [accessed 13 December 2011].
- 73 Svetlana Alpers and Michael Baxandall, *Tiepolo and the Pictorial Intelligence*, New Haven and London, 1994, 10.
- 74 Ingold, 'Materials', 11.
- 75 See Gell, 'Vogel's net', 187–214.
- 76 Alfred Gell, *Art and Agency: An Anthropological Theory*, Oxford, 1998. For art historians' engagement with Gell's theory see, for instance, Michelle O'Malley, 'Altarpieces and agency: The altarpiece of the society of purification and its invisible skein of relations', *Art History*, 28: 4, 2005, 417–44; Robin Osbourne and Jeremy Tanner, eds, *Art History and Agency: Alfred Gell and the Anthropology of Art*, Oxford, 2007; and Caroline van Eck, 'Living statues: Alfred Gell's *Art and Agency*, living presence response and the sublime', *Art History*, 33: 4, 2010, 642–59.
- 77 Umberto Eco, 'Weak thought and the limits of interpretation', in Santiago Zabala, ed., *Weakening Philosophy: Essays in Honour of Gianni Vattimo*, Montreal, 2007, 54.
- 78 Eco, 'Weak thought', 53.
- 79 Armstrong, 'Response', 29.
- 80 Arthur Danto, 'Artifact and art', in Susan Vogel, ed., *ART/artifact: African Art in Anthropology Collections*, New York, 1989, 29.
- 81 Danto, 'Artifact', 31.
- 82 Particularly influential studies include: Semir Zeki, *Inner Vision: An Exploration of Art and the Brain*, Oxford, 1999; and John Onians, *Neuroarthistory: From Aristotle and Pliny to Baxandall and Zeki*, New Haven and London, 2007. For a searching critique of these claims, see John Hyman, 'Art and neuroscience', in Frigg and Hunter, *Beyond Mimesis and Convention*, 245–61.
- 83 Thomas Crow, *The Intelligence of Art*, Chapel Hill, NC, 1999, 103.
- 84 Crow, *Intelligence of Art*, 103.
- 85 Jeff Wall, 'Photography and liquid intelligence', in Thierry de Duve, Arielle Pelenc, Borys Groys and Jean-François Chevrier, *Jeff Wall*, London, 1996, 90–3.
- 86 Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago, IL, 2004, 59.
- 87 Michael Cole, *Cellini and the Principles of Sculpture*, New York, 2002, esp. 15–44.
- 88 We thank one of the volume's referees for reminding us of this point.
- 89 Marcel Detienne and Jean-Pierre Vernant, *Cunning Intelligence in Greek Culture and Society*, trans. J. Lloyd, Atlantic Highlands, NJ, 1978, 11.