

Introduction

Making Sense of What We See

La Historia Universal de las Cosas de Nueva España (*The General History of the Things of New Spain*), best known as the Florentine Codex, is a twelve-volume illustrated account of the Spanish conquistador Hernán Cortés's defeat of the Aztec ruler Moctezuma II in Mēxihco-Tenōchtitlan (current-day Mexico City). It was written and illustrated by native Nahuatl students of the Franciscan missionary Father Bernardino de Sahagún, who was sent to the Americas in 1529, eight years after the conquest. The events recounted took place between February 1519 and August 1521, yet the work was created over a span of thirty years following the Spanish victory and was in the possession of the Medici family in Florence, Italy, by 1588. Sahagún's goals for the project were multifold: to create a visual translation of the Aztec language, Nahuatl; to describe Aztec religion, beliefs, practices, and gods; and to record the history of the indigenous people before and after their encounter with the Spaniards. His was a proselytizing mission at least partly in the service of the Spanish empire. Sent to New Spain by the Catholic Church to "detect the sickness of idolatry," he believed that to convert the native peoples to Christianity, he first needed to understand their world and their belief systems. Sahagún was both distressed and impressed by Aztec culture, writing in the prologue to book 1 of the codex that the Mexicans "are considered as barbarians, as a people at the lowest level of perfection, when in reality . . . in matters of good conduct they surpass many other nations which have great confidence in their administrations."¹ Moreover, he continued, "whatever it may be that they were in times past, we now see through



Fig. 1 Fray Bernardino de Sahagún, *General History of the Things of New Spain: The Florentine Codex*, introduction, indexes, book 1. Medicea Laurenziana Library. Image courtesy of the World Digital Library.

experience that they are capable in all the crafts, and they practice them. They are also capable in learning all the liberal arts and sacred theology. . . . They are no less capable of our Christianity; besides, they have been duly indoctrinated therein.”² Sahagún saw the natives as literally “salvageable,” and his multifaceted account reflects this deep belief.

To gather information, Sahagún deployed a research methodology akin to modern anthropological fieldwork. He systematically interviewed groups of native peoples from what is now central Mexico and enlisted his students at the College of Santa Cruz in Tlatelolco, the first European school of higher learning in the Americas, to record their answers in a pictorial form of writing that they then phonetically transcribed into Latin, to which he added his own Spanish translations. He explained, “And they, being knowledgeable in the Latin language, inform us of the properties of the words, the properties of their manner of speech. And they correct for us the incongruities we express in the sermons or write in the catechisms. And whatever is to be rendered in their language, if it is not written congruently in the Latin language, in Spanish, and in their language, cannot be free of defect.”³ The Mesoamerican codex tradition dates back to the ancient Maya. The earliest works were created on long sheets of bark cloth and consisted of images and pictograms not meant to precisely symbolize spoken language. Most pre-Columbian works on paper were destroyed by Catholic priests and

conquistadors who, as part of their conversion and conquest efforts, wanted to erase the visual record of the preconquest past. Yet shortly following the Spanish victory, at the bequest of Charles V, the Holy Roman Emperor and King of Spain, Spanish priests and emissaries began recording events and information in this hybrid form to send back to Europe.⁴ The earliest, the Codex Mendoza (named for Don Antonio de Mendoza, the Viceroy of New Spain, who commissioned it), contains an illustrated history of the Aztec people and an inventory of Aztec daily life. The work, however, never made it to Spain since the ship carrying it was attacked by French pirates, and it remained in France in obscurity for the next four hundred years. Thus Sahagún's work is often credited with being the earliest account of Aztec history and culture written for a Spanish audience rather than for an indigenous one.⁵

Pairing image with text (and translation), Sahagún and his informants presented both a textual and pictorial narrative that accommodated a range of worldviews within the larger history of Spanish conquest and religious conversion. Through twelve volumes and 2,468 rich and detailed images, the codex tells multiple stories: of everyday life in Tenochtitlan, of Aztec religion and ritual, of war and conquest (see fig. 1). Among other things that the manuscript asserts was that Cortés was able to easily defeat the powerful Moctezuma, an accomplished astronomer and astrologer, in part because Moctezuma recently had witnessed eight omens that had come to him in a dream, suggesting the end of his reign—including the return to earth of the red-feathered deity Quetzalcoatl, whom he interpreted as rematerialized in the body of the red-haired Cortés. In book 12, chapter 16, for example, Moctezuma greets Cortés with the following speech:

O our lord. . . Thou hast come to arrive on earth. Thou hast come to govern thy city of Mexico; thou hast come to descend upon thy mat, upon thy seat, which for a moment I have watched for thee, which I have guarded for thee. . . I by no means merely dream, I do not merely see in a dream, I do not see in my sleep; I do not merely dream that I see thee, that I look unto thy face. I have been afflicted for some time. I have gazed at the unknown place whence thou hast come—from among the clouds, from among the mists. And so, this. The rulers departed maintaining that you would come to visit thy city, that thou wouldst come to descend upon thy mat, upon thy seat. And now that hath been fulfilled; thou hast come. . . Peace be with thee. Rest thyself. Visit thy palace. Rest thy body. May peace be with our lords.⁶

Sahagún's biases are clear in the images of the encounter that present Moctezuma in native dress, his naked belly protruding over a scanty loincloth, his oversized hand raised in awkward salute (see fig. 2). Moctezuma wears a richly patterned cape and a headdress. The Spaniards, in contrast, are depicted in full



Fig. 2
 Fray Bernardino de Sahagún,
*General History of the Things
 of New Spain*, Cortés and
 Moctezuma meet, introduction,
 indexes, book 12. Medicea
 Laurenziana Library. Image
 courtesy of the World Digital
 Library.

armor, with long metal bayonets pointing skyward. In the middle is Malinche, the native slave Cortés took as a lover and translator.⁷ Also dressed in richly patterned robes, she mediates between the two groups. But unlike Moctezuma, Malinche (who was converted to Catholicism shortly after Cortés enslaved her) is fully dressed, with her hands primly crossed in front of her. This visual representation would register differently with contemporary indigenous and European audiences. To European viewers, Moctezuma seems foreign and exotic while Malinche and the Spanish soldiers appear more civilized and disciplined. Although Moctezuma's lack of dress marks him as less refined to European audiences, to native viewers and artists, his nakedness would likely be of little consequence; one look at his magnificent cape and they would know he was important. Similarly, the language used in the text follows the Nahuatl convention of deploying couplets that differ just slightly, such as "thy mat / thy seat" and "from among the clouds / from among the mist," as a means of calling attention to the importance of the story. Yet by linking Cortés and his conquistadors to his departed ancestors, as seen in dreams and arriving from "among the clouds, from among the mists," the text posits to Spanish viewers that through both image and text, Moctezuma saw not what was in front of him, but what he already believed.⁸

Today we know that while Moctezuma did indeed believe in astrological omens—which included, among other things, a column of fire streaking across the sky, a lightning bolt that would destroy the temple of Xiuhtecuhtli (the god

of fire), and a woman weeping in the middle of the night, as well as the return to earth of the feathered deity, Quetzalcoatl—we also know that Moctezuma's belief in visions was not the primary reason why Cortés and his small band of conquistadors were able to defeat the mighty Aztecs with seeming ease. Nevertheless, Sahagún's narrative frame continues to provide an explanation for what happened: Moctezuma was superstitious and he mistook the Spaniards with their gunpowder, cannons, and braying horses as the ancient gods returning to the earth as foretold by signs he read in the stars. Therefore, instead of unleashing his mighty army on the early Spanish explorers and perhaps changing the course of history, he welcomed them to his palace and gave them gifts of gold and other treasure. Sahagún, too, believed in the power of prophecy and used it as part of his proselytizing mission to warn against the dangers of believing in pagan auguries. As anthropologist Susan D. Gillespie explains, "the existence of signs sent by God was integral to medieval Christianity" and Catholic priests and missionaries, including Sahagún, regularly interpreted God's intentions through omens of their own. Gillespie argues that those who believed that "Cortés was fulfilling the will of God in bringing Christendom to the new world would have expected such omens and portents to be sent."⁹ Thus, in this story, Sahagún also saw what he already believed.

Moreover, while Moctezuma did indeed believe in portents and signs, the story is more complicated than Sahagún and his students would have us understand. Composed thirty years after the events took place, Sahagún's native sources would not have been among those who had such intimate access to Moctezuma's personal reactions to the invasion. Instead, as Inga Clendinnen writes, this account "bears the hallmarks of a post-Conquest scapegoating of a leader who had indeed admitted the Spaniards to his city in life, and was so made to bear the weight of the unforeseeable consequences in death."¹⁰ The scapegoating of Moctezuma, as well as the veneration of Cortés as an exemplary military leader, was deployed by all sides of this conquest narrative, Spanish as well as native.¹¹ Placing blame on Moctezuma for his belief in omens and dreams offers a viable explanation for the Spanish victory. It also provides a moral lesson. By portraying Moctezuma as overwhelmed by fear brought on by the appearance of Cortés, his soldiers, and their columns of fire and beset by superstitions and pagan beliefs, the codex places the blame on Moctezuma's belief in visions and his misinterpretation of visual signs, rather than on the gunpowder, horsepower, and germs that the Spanish brought with them.¹²

How the codex made its way to Italy is unclear; however, by 1588 the multi-volume manuscript was part of the Medici collections in Florence. Upon first hearing of the project, King Phillip II called for Sahagún to stop production and instructed his officers to "seize those books, without any original or copy remaining," and "not allow any person to write things having to do with the superstitions and the way of life of the native, in any language."¹³ Apparently

Sahagún did not receive these instructions (or chose to ignore them) and continued his work, which was smuggled out of the Americas upon completion. Scholars speculate that the work made its way via Madrid to Rome, where it was bound in multiple leather volumes, given as a wedding gift to Grand Duke Francisco de Medici in 1578, and then placed in the family's Laurentian Library. The library—commissioned by Clement VII, the Medici pope, in 1523 (and designed by Michelangelo)—was built to showcase the family's growing collection of books and manuscripts, as well as to display the vast works of science and art that they had begun to commission and assemble as a means of demonstrating that they were no longer merely successful bankers and merchants but also important members of the Renaissance intelligentsia.¹⁴ Thus objects such as the codex served as material evidence of the Medici family's position as custodians and purveyors of new global forms of knowledge through the ownership and display of things.

Renaissance scholars and missionaries repeatedly used objects such as the Florentine Codex, which involved the painstaking cataloging of the known world as *las cosas*, or things, as a means of asserting new ways of understanding the universe. Through them they stressed the importance of measured thought over pagan belief and direct observation over mythology and the (mis)interpretation of signs as a means of distinguishing between the work of their God and the false prodigies of demons, witches, and other forms of pagan idolatry. The production and circulation of objects such as the Florentine Codex, I would argue, also marks a key moment in the transformation of the nature of vision and the advent of a new form of spectator, removed from the events of the story but in search of information grounded in experience—often the encountering of foreign and exotic objects. It signals a more modern way of seeing as tied directly to notions of evidence and understanding as rooted in sensory perception of visual and material things.

The links between seeing and knowing date back to antiquity. Aristotle, in his circa 350 BCE treatise *De anima*, explicitly ties images to the “medium of thought,” arguing that “the soul never thinks without an image.”¹⁵ For Aristotle, “no one can learn or understand anything in the absence of sense, and when the mind is actively aware of anything it is necessarily aware of it along with an image, for images are like sensuous contents except in that they contain no matter.”¹⁶ Plato similarly asserted the primacy of sight as the noblest of the senses when he linked reason with the “eye of the soul.”¹⁷ The relationship between images and matter has been a source of philosophical debate for centuries. I am not going to engage these arguments in detail here, but I do want to highlight the centrality of this issue in the history of Western thought more broadly and visual culture studies more specifically. For example, in his foundational text *Ways of Seeing*, British cultural critic John Berger positioned sight as the privileged sense for making meaning of the world around us when he wrote, “But

there is another sense in which seeing comes before words. It is seeing which establishes our place in the surrounding world; we explain that world with words but words can never undo the fact that we are surrounded with it."¹⁸ Berger's materialist assertion that seeing precedes words continues to dominate much of the work done in visual culture studies.¹⁹ We read texts, we look at images, we understand the past as well as our present primarily through sight. Yet as Hal Foster argues in the preface to his edited volume *Vision and Visuality*, seeing is always socially and culturally constructed:

Although vision suggests sight as a physical operation, and visuality sight as a social fact, the two are not opposed as nature to culture: vision is social and historical too, and visuality involves the body and the psyche. Yet neither are they identical: here, the difference between the terms signals a difference within the visual—between the mechanism of sight and its historical techniques, between the datum of vision and its discursive determinations—a difference within the visual—a difference, many differences, among how we see, how we are able, allowed, or made to see, and how we see this seeing or the unseen therein.²⁰

Foster's important analysis of the relationship between vision and visuality continues to be key in delineating the field of visual studies. But, as Nicholas Mirzoeff more recently has pointed out, "visuality is an old word for an old project. It is not a trendy theory word meaning the totality of all visual images and devices, but is in fact an early nineteenth-century term meaning the visualization of history." Tracing the origins of the term back to Thomas Carlyle, Mirzoeff identifies what he calls a "complex of visuality" that involved practices of observation and control that range from the eighteenth-century plantation system to the current military-industrial complex. In all his examples he demonstrates how visuality acts as a tool for aestheticizing, and thus naturalizing, dominant and oppressive power structures and social orders. In response, Mirzoeff articulates a theory of what he calls *countervisuality* as "the assertion of the right to look, challenging the law that sustains visuality's authority in order to justify its own sense of 'right'" and to provide alternatives that imagine possible new worlds.²¹

The complex of visuality has been a masculinist endeavor for the most part, premised on systems of surveillance and oppression. In part my project is an intervention in these accounts. By focusing on objects of vision often excluded from master narratives—material artifacts and ways of seeing that are too easily dismissed as unimportant, strange, frightening, and even silly—I hope to make room for other voices and more inclusive ways of understanding the world. Objects of vision, as I hope to demonstrate, are not seen objectively—or simply for what they are—but are situated within a context of relationships, ideas, and

cultures that shape what we see when we view these objects. Of particular interest to me are forms of ephemera, or, rather, objects of vision that are fantastic, wondrous, and often marginal to our understanding of historical moments. Following Avery Gordon, I am interested in images that haunt their subjects and thus defy easy classification and control. For Gordon, “haunting is a constituent element of modern social life. It is neither premodern superstition nor individual psychosis; it is a generalizable social phenomenon of great import.”²² By exploring the role of “visions,” loosely defined, I hope to interrogate the relationship between visions and visibility to articulate a sensory history of seeing and its larger links to knowing.

I am using the concept of visions both literally and metaphorically to describe the myriad ways that we as spectators continue to envision ourselves as actors in daily life, as well as to include those things that have been revealed in dreams or reveries, ghostly presences captured on film, and messages sent by the gods. Visions are inherently sensory phenomena. They require interpretation and context to differentiate between what is visionary and what is madness; they frame our understanding of optical processes and apparatuses and underlie how we see and act in the world.

Perhaps it should not be surprising that René Descartes, the “father of modern philosophy” and a key theorist of vision, attributed his success to heavenly intervention. According to his first biographer, Adrien Baillet, on November 10, 1619, the evening of the Vigil of the Feast of St. Martin, Descartes had three dreams that he later described as “the most important thing in his life.” Interpreting them as a sign from God that he had been given a divine order to establish an all-encompassing theory of human knowledge, these dreams formed the basis for his investigations into analytical geometry, optics, and the scientific method. Descartes took these visions so seriously that in thanksgiving for this divine intervention, he vowed to the Virgin Mary that he would make a pilgrimage and then journeyed to her shrine in Loreto, Italy, to offer prayers of gratitude. Although Descartes would later argue that dreaming was a form of deception, the tension between the generative potential of his visions and his general distrust of dreams speaks to what Stuart Dalton calls “the unresolved tension within Descartes’s philosophy concerning images, vision and the visual.”²³ Indeed, how to differentiate between God’s will and “the work of an Evil Deceiver who is the god not of love and truth, but of deception, fear and madness,”²⁴ was a question that Descartes tried to make sense of for the rest of his life—and in many ways fueled the quest for disenchantment at the root of much of the modern Enlightenment project.²⁵

Following scholars such as Jane Bennett and Philip Fisher, I aim to reclaim enchantment as part of a deliberate and ethical strategy of resistance and take seriously moments of sensory disruption that challenge the rational disavowal of seemingly magical and miraculous encounters.²⁶ Paying particular attention to the confluence of space, narrative, and technology in framing the idea of

visions, I concentrate in this project on the idea of *making* visual sense, with an emphasis on the making. Inspired by the groundbreaking work of social historians such as E. P. Thompson for whom making is “an active process, which owes as much to agency as to conditioning,”²⁷ I treat the visual as a set of relationships much like Thompson does class: “as a social and cultural formation, arising from processes which can only be studied as they work themselves out over a considerable historical period.”²⁸

This is not a comprehensive history of vision nor of visual culture. We cannot isolate one sense on its own. Rather, a sensory history of ways of seeing must also take into consideration the other four senses as well.²⁹ In this book, by presenting a series of linked case studies that highlight moments of seeming disconnect between seeing and believing—hoaxes, miracles, spirit paintings, manipulated photographs, and holograms, to name just a few of my objects—I hope to make room for many of the things that are not a part of the modernist project of rationalism and scientific method. For example, belief, desire, affect, pleasure, and fear have all influenced how we have chosen to see things over time and provide a narrative that accounts for what Marc Bloch, paraphrasing the ancient Greek historian Herodotus, allows for “great and marvelous exploits . . . [that] should not lose their radiance,”³⁰ or what Carolyn Walker Bynum designates as “the special characteristic of the historian, a sense of wonder.”³¹

Descartes identified “wonder” in 1649 as “a sudden surprise of the soul which makes it tend to consider attentively those objects which seem to it rare and extraordinary.”³² Centuries later, Bynum notes that “medieval philosophers and theologians emphasized wonder as a first step towards knowledge.”³³ She writes, “If, to theologians, chroniclers, and preachers, the wonderful was indeed often the strange, the rare, and the inexplicable, it was never the *merely* strange or the *simply* inexplicable. It was the strange that mattered, that pointed beyond itself to meaning.” Bynum encourages contemporary historians to continue to highlight wonder in their narratives, concluding that “the flat, generalizing, presentist view of the past encapsulates it and makes it boring, whereas amazement yearns toward an understanding, a significance, that is always just a little beyond both our theories and our fears.”³⁴ For Descartes, wonderment was both a spiritual and a sensory process that takes place when

the impression formed in the brain which represents the object as rare, and consequently worthy of close consideration; and then by the movement of the spirits, which are disposed by this impression, first, to rush towards the part of the brain where it is located in order to reinforce it and preserve it there, and, secondly, to flow from there into the muscles that serve to keep the sense-organs in the same state as they are now, so as to keep the original impression going (supposing it was formed by them in the first place).³⁵

As with dreams, however, Descartes warned that wonder could also be deceptive. Figuring out how to differentiate between light and dark wonder—how to trust and then make meaning from his visions—was foundational to his thought. Moreover, for Descartes (and after), wonder increasingly has been tied to things—from the objects collected in Renaissance *wunderkammer* (or wonder cabinets) to the “marvelous possessions” encountered in colonial voyages of exploration that for Stephen Greenblatt encapsulate the awe many experienced in the new world, or, as in the case of the Florentine Codex, *las cosas de nueva España*. One of my goals for this project is to highlight the importance of the strange and the wonderful in understanding changing notions of vision and visual culture both within and outside the spectacle of the marketplace but also within different and often conflicting belief systems. This brings us back to the Florentine Codex and its circulation as a visual object across time and space.

The early history of the Florentine Codex corresponds to the emergence of the idea that objects—paintings, manuscripts, ethnographic matter, et cetera—have cultural value and thus can be displayed and collected for their intrinsic worth, as well as for what they reveal.³⁶ The Florentine Codex’s desirability stemmed both from its status as a rare and unique object as well as from the information contained within its pages. In addition to being a dictionary of the Nahuatl language and a compendium of indigenous cosmology, history, and philosophy, included within the twelve volumes were encyclopedic descriptions of the flora and fauna of the new world, as well as their possible uses. Book 11, for example, contains over seven hundred meticulously illustrated entries of various plants, animals, and minerals—both real and imagined. Each is carefully numbered and is accompanied by details of their possible medicinal and other uses. The authority ascribed to the manuscript by European audiences stems largely from the provenance of the source material contained within: native informants. Many of them would not have been present at the events they recorded, yet because they could translate the story, in picture and in text, from Nahuatl into an account legible to Spanish Catholic audiences, they were considered credible sources. Sahagún verified the legitimacy of his approach, explaining, “Everything that we discussed was given to me by means of pictures, which was the writing they had used of old, and the grammarians explained them in their language, writing the explanation at the foot of the picture.”³⁷

Yet with its hand-drawn images and local sources of information, the Florentine Codex also runs counter to narratives of progress as rooted in more objective forms of observation and new forms of technology that began to emerge during this time.³⁸ During the Renaissance new technologies such as the microscope and telescope located knowledge in that which could be observed. Renaissance humanists such as Leonardo da Vinci argued that “nature is the source of all true knowledge” and that “if you find from your own experience that something is

a fact and it contradicts what some authority has written down, then you must abandon the authority and base your reasoning on your own findings.”³⁹ Nearly two hundred years later, John Locke argued in *An Essay Concerning Human Understanding* (1689) that all human knowledge is a posteriori, or derived from experience. Using the metaphor of the tabula rasa, or blank page, Locke posited that “the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those perceptions. This great source of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call ‘sensation.’”⁴⁰ For Locke the acquisition of sensory experience took the form of a technology of vision: the camera obscura. Writing of the “dark room” Locke explains:

External and internal sensation are the only passages 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 me thinks the understanding is not much unlike a closet wholly shut from light, with only some little openings left to let in external visible resemblances, or ideas 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, in reference to all objects of sight, and the ideas of them.⁴¹

For art historian Jonathan Crary, the camera obscura is the dominant metaphor for conceptualizing vision from the late sixteenth through the eighteenth centuries. He writes, “The camera obscura was not simply an inert and neutral piece of equipment or a set of technical premises to be tinkered upon and improved over the years.” Rather, he argues, “it was embedded in a much larger and denser organization of knowledge and the observing subject.” It became a model for ordering visions and structuring “how observation leads to truthful inferences about an external world.”⁴² Advances in optical apparatuses such as the camera obscura (and following it photography and digital imaging) contributed to the widespread belief that new forms of technology and advances in science could reveal new forms of truth.

With new ways of seeing came new ways of understanding.⁴³ Enlightenment-era thinkers created elaborate systems for the orderly display of knowledge into recognizable categories in an attempt to make sense of the world around them and to create seemingly objective forms of truth tied to visual objects. In 1735, for example, the Swedish botanist Carl Linnaeus organized the natural world into a hierarchical system of units consisting of eight taxa: domain, kingdom, phylum, class, order, family, genus, and species. Linnaeus’s taxonomies, which are still used today, became the basis for identifying and sorting things into fixed scientific categories arranged on a flat, pictorial plane. Perhaps

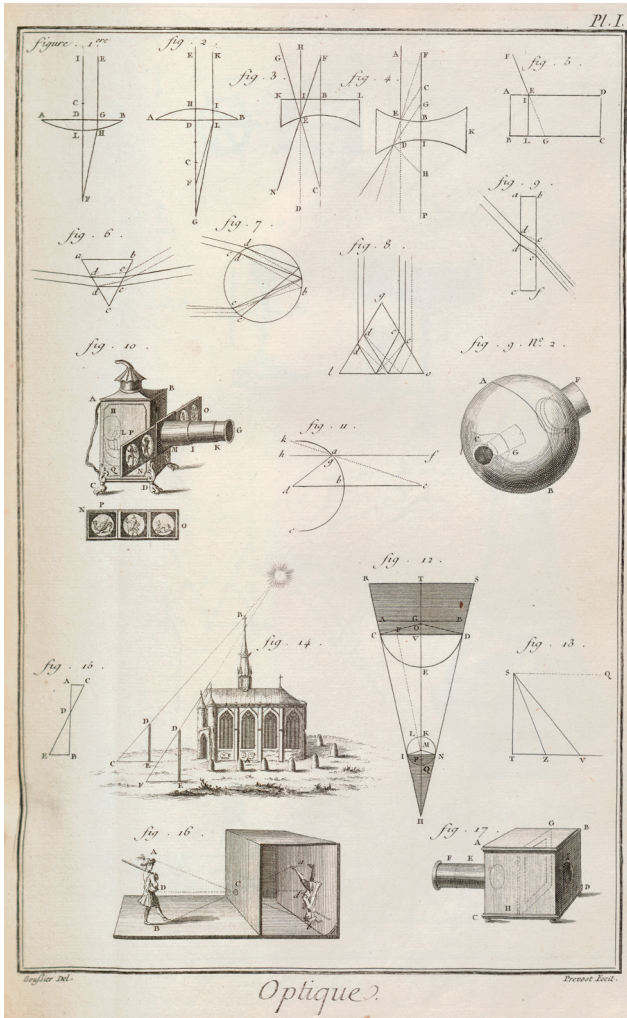
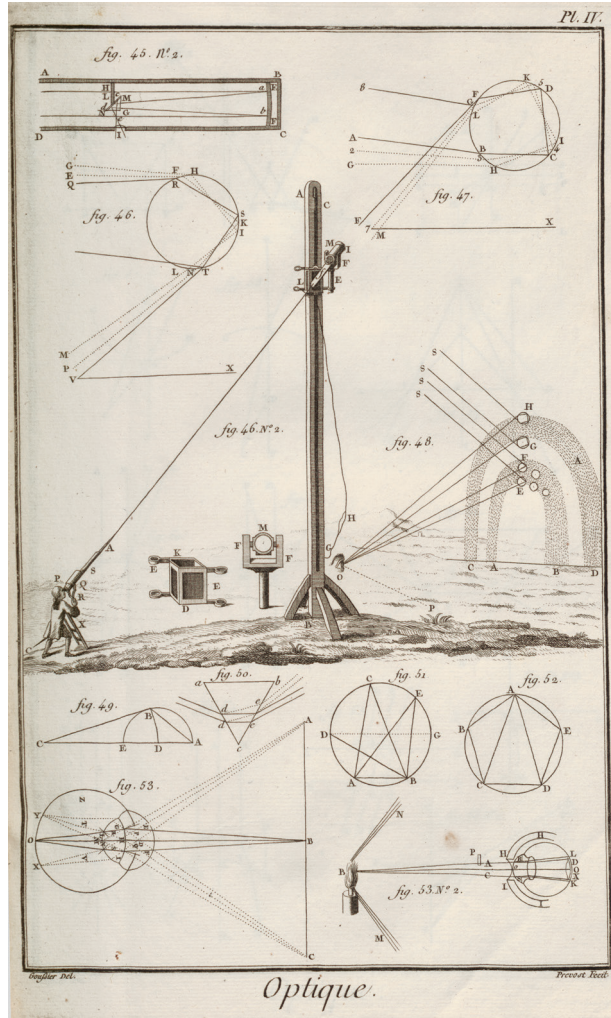


Fig. 3

SCIENCES. MATHÉMATIQUES. |
OPTIQUE, entries in Jean le
Rond d'Alembert and Denis
Diderot, *Encyclopédie* (Paris:
Briasson, 1751). Image courtesy
of the ARTFL Project, Special
Collections Research Center,
University of Chicago Library.

the most ambitious Enlightenment project for organizing knowledge, however, was Denis Diderot's *Encyclopédie*. Created between 1751 and 1772 and collaboratively sourced from over 140 contributors, the twenty-eight-volume work was edited by Diderot and Jean de la Rond d'Alembert, who identified its two primary aims as "to set forth as well as possible the order and connection of the parts of human knowledge" and "to contain the general principles that form the basis of each science and each art, liberal or mechanical, and the most essential facts that make up the body and substance of each."⁴⁴

Diderot, an avowed atheist, saw the *Encyclopédie* as a way to standardize the attainment of knowledge and secularize learning (and to move away from what he perceived as the stranglehold of the Jesuits, by whom he had been educated). His goal, he explained in an article about its production, was "to change the way people think" and "for people to be able to inform themselves and to know



things.”⁴⁵ One way that the authors of the *Encyclopédie* attempted to standardize knowledge was through the inclusion of elaborate technical images and mechanical diagrams. For example, the entry on “Optics” contained six plates that depicted new technologies of vision such as the telescope, the microscope, and various camera obscuras, as well as drawings that traced the principles of reflection and refraction of light in more mathematical terms (see fig. 3). By linking the drawings to scientific processes, they attempted to yoke fact to vision. For Diderot there were direct links between sight and insight, and both were rooted in the senses.

The importance of the senses was further highlighted in Bonaventure-Louis Prévost’s engraving for the frontispiece of the work.⁴⁶ The image depicts a group of female figures representing Reason and Philosophy, Truth, and Imagination (see fig. 4).⁴⁷ Diderot described the scene as such:

Beneath an Ionic Temple, the Sanctuary of Truth, one sees Truth enveloped in a veil and radiating light which parts the clouds and disperses them. To the right, Reason and Philosophy are busy, one in raising the veil from Truth, the other in tearing it away. At her feet, Theology, on her knees, receives the light from on high. In following this chain of figures, one finds on the same side Memory, Ancient and Modern History; History records the pomp and ceremony, and Time serves as its support. Below them are grouped Geometry, Astronomy, and Physics. The figures below this group represent Optics, Botany, Chemistry, and Agriculture. At the bottom are several Arts and Professions which derive from the Sciences. At the left of Truth, one sees Imagination, who positions herself to adorn and crown Truth. Below Imagination, the artist has placed the different Imitation: Music, Painting, Sculpture, and Architecture.

In this engraving, "Truth" is personified at the top of the frame as a radiant vision seated high in the clouds. Emanating light, she inspires the disciplines and attributes below her: Beauty, Reason, Geometry, Physics, Poetry, Painting, and Sculpture are all part of the same tableau. Alongside "Truth" sits "Imagination." By deploying a hierarchical structure with "Truth" at the top of the pyramid-like formation, joined just below by "Imagination," the image provides an alternative visual taxonomy in more narrative, allegorical form. It also harnesses the internal senses to the external senses as the foundation for the acquisition of knowledge.

In addition to the figurative image in the frontispiece, Diderot and d'Alembert attempted to further order their project through a series of schematic maps. These charts helped orient readers to the material within a Linnaean-like classification system. In so doing, these maps reduced vast amounts of information to a single, two-dimensional, hierarchically ordered schema. As with the frontispiece, Diderot amended his chart with a narrative "Detailed Explanation" in which he again linked human knowledge to the work of the senses, arguing:

Physical beings act on the senses. The impressions of these beings stimulate perceptions of them in the understanding. The understanding is concerned with its perceptions in only three ways, according to its three principal faculties: memory, reason, and imagination. Either the understanding makes a pure and simple enumeration of its perceptions through memory, or it examines them, compares them, and digests them by means of reason; or it chooses to imitate them, and reproduce them through imagination. Whence results the apparently rather well-founded general distribution of human knowledge into *history*, which is related to *memory*; into *philosophy*, which emanates from *reason*; and into *poetry*, which arises from *imagination*.



Fig. 4 Frontispiece to Jean le Rond d'Alembert and Denis Diderot, *Encyclopédie* (Paris: Briasson, 1751). Image courtesy of the ARTFL Project, Special Collections Research Center, University of Chicago Library.

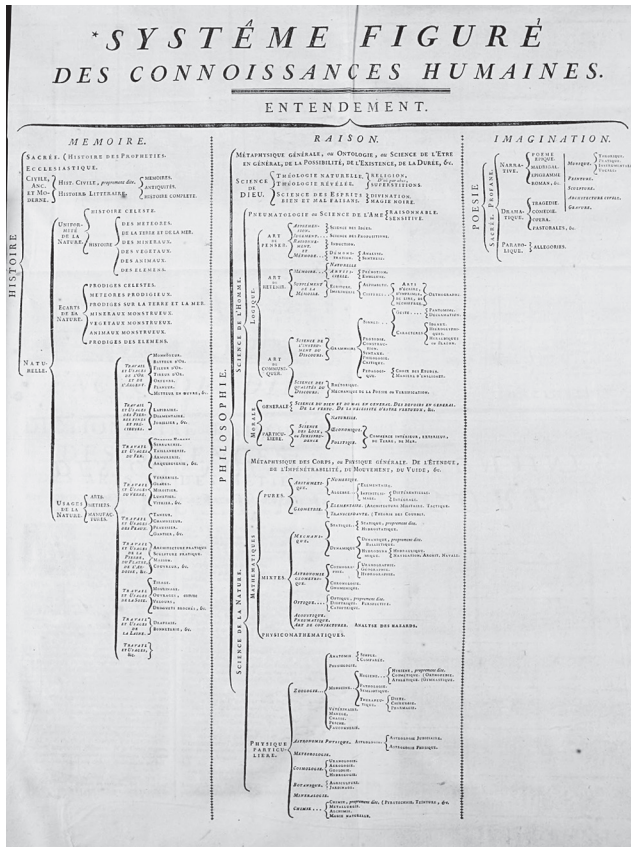


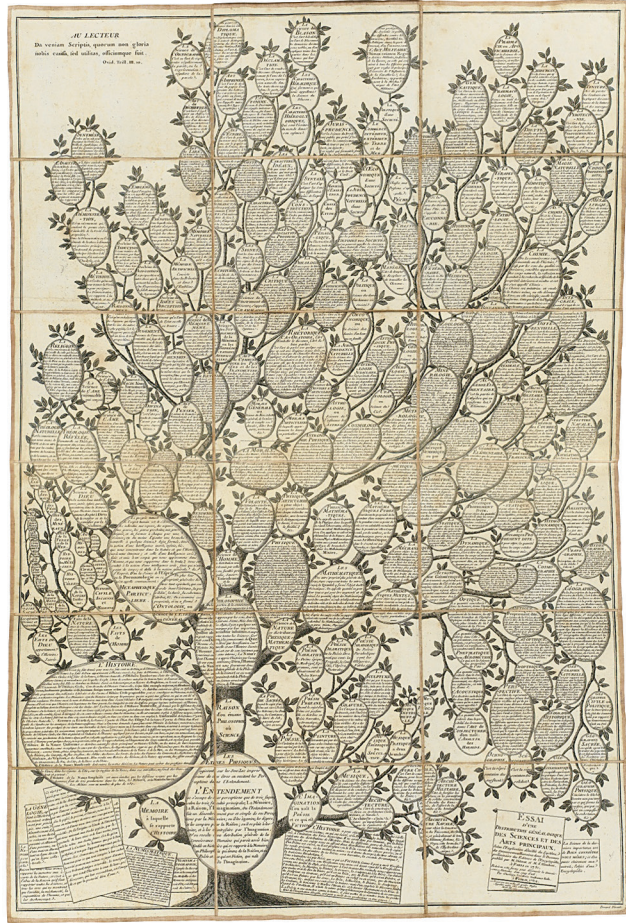
Fig. 5
 “Système Figuré des Connaissances Humaines” (The figurative system of organization of human knowledge), chart from the 1752 edition of Jean le Rond d’Alembert and Denis Diderot, *Encyclopédie* (Paris: Briasson, 1752). Image courtesy of the ARTFL Project, Special Collections Research Center, University of Chicago Library.

Once again Diderot stressed the importance of imagination, together with reason and memory, in stimulating understanding. By highlighting the importance of various “perceptions” alongside the seemingly objective display of information contained in the *Encyclopédie*, he made room for different visions as well as visualizations of knowledge to coexist in the pages of the multivolume text (see fig. 5).

In a supplement to the *Encyclopédie*, the editors included a woodcut by Chrétien Frederic Guillaume Roth illustrating their map as a “tree of knowledge” whose three main branches were memory and history, reason and philosophy, and imagination and poetry, thus formally visualizing their plan in organic form for readers of the text. The fruit of this tree took the form of small orbs of varying sizes, each representing all the “domains of science known to man and featured in the encyclopedia.”⁴⁸ Roth’s encyclopedic tree presented knowledge as exhaustive and hierarchically dense, but also as mappable and thus attainable (see fig. 6). Moreover, by providing so many possibilities for the procurement of knowledge, this tree challenged the either/or scenario set forth in the Old Testament’s tree of knowledge in which “the LORD God commanded the man, saying, ‘You may surely eat of every tree of the garden, but of the tree of the knowledge of good

Fig. 6

F. G. Roth, *Explication détaillée du système des Connoissances Humaines tirée du Discours Préliminaire du Tome I. de l'Encyclopédie Publiée par Mr. Diderot et Mr. d'Alembert à Paris pour Servir à l'Usage de l'Arbre Encyclopédique*. Image courtesy of the ARTFL Project, Special Collections Research Center, University of Chicago Library.



and evil you shall not eat, for in the day that you eat of it you shall surely die” (Gen. 2:16–17). Instead, Roth’s encyclopedic tree contained multiple branches and no evil agents in masquerade—there was no threat of death (nor any expulsion from paradise) as a result of partaking of their trees of knowledge and no possibility of mistaking the messenger as an evil vision.

Over three hundred years later, Michel Foucault argued that the quest for disciplinary order as embodied in the *Encyclopédie* was one of the hallmarks of what he called the classical episteme, or the historical a priori that grounds knowledge and its discourses within a particular epoch. Characterized by the systematic ordering of difference along taxonomic criteria, the classical episteme fell between the Renaissance quest for resemblance and similitude and the modern epoch. In many ways Foucault underscores the absurdity at the root in encyclopedic thinking by quoting a passage from Jorge Luis Borges’s description of “a certain Chinese encyclopedia” in the preface to his text: “It is written that animals are divided into: (a) those that belong to the Emperor, (b) embalmed ones,

(c) those that are trained, (d) suckling pigs, (e) mermaids, (f) fabulous ones, (g) stray dogs, (h) those that are included in this classification, (i) those that tremble as if they were mad, (j) innumerable ones, (k) those drawn with a very fine camel's-hair brush, (l) others, (m) those that have just broken a flower vase, (n) those that resemble flies from a distance."⁴⁹ Nevertheless, despite the seeming futility of objectively and exhaustively placing ideas and things into legible categories, the impulse to catalog people, things, and ideas persists across epochs and epistemes.

Perhaps nowhere have knowledge and vision been knit together through the display of people, things, and ideas more than in the encyclopedic museum.⁵⁰ Institutions such as the British Museum in London, the Louvre in Paris, and the Smithsonian Institution in Washington, DC, emerged as Enlightenment establishments whose purpose was to advance the belief that the world was knowable and could be understood through the organization and seemingly rational display of things and ideas, often in the name of colonial agendas and national sovereignty. The British Museum was founded in 1753 by an act of Parliament in response to the bequest by the naturalist and physician Sir Hans Sloane. Sloane, an enthusiastic collector who had amassed over seventy-one thousand objects—including books, manuscripts, ethnographic material, natural specimens, and antiquities (e.g., coins and medals, prints and drawings)—bequeathed all these to King George II in exchange for a £22,000 payment to his heirs. Included in his bequest, which he meticulously cataloged in forty-six volumes, were “the saw of a sawfish,” “the shoes of a grown-up Chinese woman which were no bigger than those of a child of 2 or 3 in Sweden,” “a striped donkey from the Cape of Good Hope,” “the stuffed skin of a rattlesnake,” “the headdress of a West Indian King made out of red feathers,” “all sorts of Roman and other antiquities,” and many other *cosas* that recall the Florentine Codex, as well as Borges's nonsensical taxonomies.⁵¹

In accordance with Sloane's philosophy, the museum's founding credo was that “all Arts and Science have a Connexion [*sic*] with each other, and Discoveries in Natural Philosophy and other branches of speculative Knowledge for the Advancement and Improvement whereof said Museum or Collection was intended, do and may in many instances give Help and success to the most useful Experiments and Inventions.”⁵² As Alan Trachtenberg has noted, museums are the “‘seat of the muses,’ a place of making as well as showing.”⁵³ But what exactly are they making? Often divorced from their original uses and contexts, many of the objects on display in the hallowed halls the British Museum's galleries—the Elgin Marbles from the Parthenon, casting stones from the Great Pyramid of Giza, Buddhist reliefs from the Amaravati Stupa in India—act as wondrous emblems of the country's massive colonial footprint and imperial power. Brought back to London and displayed alongside others of their kind—antiquities, decorative arts, African arts, and so forth—they create and then solidify categories

of display across the collections and set a template for the other encyclopedic museums that soon followed.

The Louvre, which displays over 350,000 objects from the prehistoric to the present, was established in Paris, France, in 1793. The Hermitage, founded in 1754 by Catherine the Great, opened to the public in Saint Petersburg, Russia, in 1852. Its collections contain over three million items, including the largest collection of paintings in the world. In 1846 the Smithsonian Institution was founded as the National Museum of the United States to promote “the increase and diffusion of knowledge.” Its guiding directive, as the naturalist G. Browne Goode explained, was that “to see is to know.”⁵⁴ All of these institutions deployed exhibition strategies similar to those established at the British Museum in the eighteenth century. Two centuries later, they all still have as their mission to promote an understanding of the world through cross-cultural encounter as rooted in the categorical display of things, or *las cosas*. Yet the histories of their acquisition haunt their exhibition and add to the sense of wonder and strangeness that often surrounds their display.

As with the Medici centuries earlier, as private wealth increased in the nineteenth and early twentieth centuries, the ownership of rare and exotic objects and original works of art also became a mark of individual taste.⁵⁵ The ability to differentiate between original works and copies became one way of demonstrating an individual’s status at the turn of the twentieth century as economic elites tried to distinguish themselves from the masses in increasingly stratified Western societies through defining the objects and venues of high culture. Museums quickly evolved into sites of cultural hegemony. This, coupled with new and better techniques of reproduction, furthered the distinction—as well as the perceived importance of the difference—between originals and copies, hoaxes and real events, as I will outline in the pages that follow.

Perhaps no one has been more responsible for articulating changing attitudes surrounding issues of authenticity in the twentieth century than the German theorist Walter Benjamin, who lamented the historical conditions that led to this shift in his much-cited work “The Work of Art in the Age of Its Mechanical Reproducibility.”⁵⁶ For Benjamin, changes in conceptions of art parallel changes in economic structures and are rooted in and deeply shaped by sensory perspectives. But, for Benjamin, sensory perspective is neither completely biological nor natural; it is also historical. As he explains, the “earliest artworks originated in the service of rituals.” For Benjamin, the “here and now of the original,” or what he calls the object’s aura, “underlines the concept of its authenticity, and on the latter in turn is founded the idea of a tradition which has passed the object down as the same, identical thing to the present day.”⁵⁷ Take the case of the Florentine Codex, for example. As I stated earlier, neither the native informants who compiled the work nor the Spanish priests who commissioned it were present at the events being recounted; moreover, we now know that much of the story

told in its images and text may not be factually true—yet the Codex’s presence in time and place, sixteenth-century Mexico, has bestowed on it a form of temporal authenticity and provides a version of truth that may run counter to the sources of knowledge it initially was meant to contain.

Interestingly, as Miriam Hansen notes, Benjamin’s first conceptualization of the concept of the aura takes place in a dreamlike state brought on by his experiments with hashish. Thus rather than see it only as an aesthetic category, Hanson links the concept of the aura more directly to the dream worlds that preoccupied Benjamin in many of his other writings—it is significant, I think, that it came to him as a vision.⁵⁸ Benjamin’s focus on the aura, “a strange tissue of space and time: the unique apparition of a distance, however near it may be,” has come to dominate much critical discourse surrounding the status of objects, or *cosas*, in the twentieth century.⁵⁹ And while the work needs to be understood within his own poetic form of Marxist philosophy and should be situated within the context of the spread of fascism in Europe in the years before the Second World War, Benjamin’s entreaty that “for the first time in world history, technological reproducibility emancipates the work of art from its parasitic subservience to ritual” and his admonition that “the work reproduced becomes the reproduction of a work designed for reproducibility,” is key to understanding not only the continued veneration of original art works in the nineteenth and twentieth centuries—it is also key to understanding the late twentieth-century development of more postmodern conceptions of artistic value and aesthetic worth, divorced from historical referent and rooted in spectacle and simulation.⁶⁰

As in the case of the Holliday video with which I begin this project, the ways we frame objects of vision have enabled multiple ways of seeing over time and across media. That is the subject of this project. I have organized the book into four chapters. They do not proceed in a neat chronological fashion, and there is often overlap between them. Some of my subjects are well trod, others are more obscure. I have tried through all my examples, however, to identify and describe what I see as key ways of seeing to understand how we make sense of the world around us. Chapter 1 explores the persistence of what I am calling miraculous vision by looking at instances of divine encounter that can transfer across mediums through replication and reproduction. Chapter 2 looks at the centrality of technological vision in the context of nineteenth-century visual hoaxes. Chapter 3 details the emergence of camera vision and indexical sight through an examination of the material culture of the Spiritualist movement. Chapter 4 investigates the development of the pseudo-event and the emergence of postmodern ways of seeing. I conclude with a short consideration of virtual modes of seeing to complicate notions of authenticity as tied to visual truth.

At the heart of all these visions, or ways of seeing, is a desire for individual agency. The ability to inspect and explore, to challenge or confirm beliefs, to justify the wondrous and impossible, to take an active role in the creation and

negotiation of meaning, have given tremendous import to these various forms of vision and their ability to endure. Vision remains the currency of contemporary claims to truth. Advances in technology allow us to see the invisible: fetal heartbeats, seismic activity, cell mutations, virtual space. Yet in an age when experience is so intensely mediated by visual records, the centuries-old realization that knowledge gained through sight is inherently fallible takes on troubling new dimensions. Nevertheless, images and other forms of visual evidence continue to be foundational to understanding the world around us. This disconnect between seeing, knowing, and believing is not new. On the contrary, as I hope to demonstrate, it has persisted across centuries, continents, and media forms and is often legitimized by visual evidence that in many cases directly contradicts what seems to be real. Yet in all the cases I detail below, as silly as some of them may seem to us today, the visions referenced and the stories they tell continue to matter.