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Author

Dominguez Rubio, Fernando

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Preserving the unpreservable: docile and unruly objects at MoMA

Fernando Domínguez Rubio

Abstract The aim of this article is to theorize how materials can play an active, constitutive, and causally effective role in the production and sustenance of cultural forms and meanings. It does so through an empirical exploration of the Museum of Modern Art of New York (MoMA). The article describes the museum as an "objectification machine" that endeavors to transform and to stabilize artworks as meaningful "objects" that can be exhibited, classified, and circulated. The article explains how the extent to which the museum succeeds in this process of stabilization ultimately depends on the material properties of artworks and, more specially, on whether these behave as "docile" or "unruly" objects. Drawing on different empirical examples, the article explores how docile and unruly objects shape organizational dynamics within the museum and, through them, the wider processes of institutional and cultural reproduction. The article uses this empirical example to highlight the importance of developing a new "material sensibility" that restores heuristic dignity to the material within cultural sociology.

Keywords Museums · Materiality · Docile objects · Unruly objects · Cultural sociology

Although still incipient and somewhat dispersed, it is nonetheless possible to detect the contours of a novel "sensibility" within cultural sociology that calls for the need to incorporate the material into the study of cultural forms, processes and meanings. This "material sensibility," as one might call it, has slowly emerged over the last years driven by a more or less heterogeneous collection of authors who, despite their methodological and theoretical differences, share the conviction that materials have been unduly neglected in the sociological study of culture. As Chandra Mukerji has put it (1997, p. 36), there is a growing need "to approach material culture without reducing objects to instantiations of discourse or realizations of cognitive representations," and to avoid "the disappearance of the material world behind language." In a similar vein, Harvey

F. Domínguez Rubio (✉)
Department of Communication, University of California, San Diego, 9500 Gilman Dr, 92093 San Diego, CA, USA
e-mail: dorubio@ucsd.edu

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Molotch has reclaimed the need to develop an understanding of "how the social and the material combine to make, depending on circumstance, both change and stability happen in the world" (Molotch 2003, p. 3). Finally, Thomas F. Gieryn (2000) has underlined the importance of exploring the relationship between social worlds and physical environments as a key to understand how social structures, categories, and meanings acquire extension and durability.

Over the last few years, these calls to include the material into our understandings of cultural processes, meanings and forms have been taken up by a younger generation of cultural sociologists who have begun to explore, for example, how "intersubjectivity enabling-practices relate to the material environments in which they are enacted" (Jansen 2008, p. 152); how the interpretations of cultural meanings are affected by the materiality of the objects in which these meanings are inscribed (McDonnell 2010); how power and political structures are shaped and enacted through different material infrastructures (Carroll-Burke 2006); how the material making, unmaking, and remaking of icons can lead to the articulation of political identities and institutional reforms (Zubrzycki 2013); or how materials shape the way cultural forms are produced (Domínguez Rubio 2012).

The development of this material sensibility within cultural sociology can be seen as part of an increasing interest on the material that has gradually spread across disciplines as diverse as anthropology (Gell 1998; Henare et al. 2007; Keane 2003; Miller 2010), social studies of science (Galison 1997; Latour 1987; Law 1991; Pickering 1995), geography (Anderson and Wylie 2009; Whatmore 2002), political theory (Bennett 2009; Braun et al. 2010; Coole and Frost 2010), cognitive science (Clark and Chalmers 1998; Hutchins 1995), or the emerging field of material cultural studies (Hicks and Beaudry 2010; Miller 1987; Woodward 2007). In spite of their different, and often divergent, methodological and theoretical approaches, the common thread uniting this diverse array of authors is the attempt to restore some heuristic dignity to the material. To achieve this, these authors invite us to move away from those approaches that have relegated material artifacts to the subservient role of *natura naturata*, that is, to the role of a passive surface upon which social forces act and impart meaning. As Durkheim once put in an exemplary summary of this position, although materials can "exert an influence upon social evolution, whose rapidity and direction vary according to their nature" (Durkheim 1982 [1895], p. 136), they do not possess the *élan vital* that "determines social transformations." It is for this reason, Durkheim concluded, that "the principal effort of the sociologist" should not be devoted to understand what materials do, but should be directed instead towards understanding what humans do, since they are the only ones "capable of exerting some influence upon the course of social phenomena" (ibid.). The proponents of this new material sensibility depart from this view by claiming that materials do not simply behave as *natura naturata* but can also behave as *natura naturans*, that is, as active and constitutive elements in the production of social forms, relations, and meanings. This, however, does not mean that these authors are advocating some sort of animism or anthropomorphism by proposing that materials can act *like* humans—i.e., that they can act intentionally and meaningfully. Rather, what they argue is that, although materials obviously lack the capacity to act intentionally or meaningfully, they are nonetheless capable of other forms of action that "are irreducible to human agency" (Pickering 1995, p. 53), and which can be as important as human agency in the shaping of social forms, relations, and meanings. It is

for this reason, these authors claim, that the exclusive focus on human actions provides us with an insufficient principle of intelligibility to make sense of the materially heterogeneous environments that we inhabit. This is precisely what scholars within the social studies of science argue when they claim that it would be simply impossible to make sense of how truth-claims, evidence, or objectivity are produced, if we were to focus exclusively on what scientists do while ignoring what materials do (Barad 2007; Daston and Galison 2007; Haraway 1997; Latour 1987; Law 1991; Pickering 1995). In a similar vein, historians and urban theorists have demonstrated the need to attend to the physical properties of the built environment to understand how different logics of governance and power come into being (Domínguez Rubio and Fogué 2013; Graham and Marvin 2001; Graham 2000; Joyce 2003; Mukerji 2012; Scott 1999). Even psychology, one of the "immaterial" social sciences *par excellence*, has joined this exploration of the material through different paradigms, like the "distributed cognition" or "embodied cognition" paradigms, which depart from the long-established Cartesian view of cognition as an immaterial process operating through symbolically expressed puzzles, to propose a novel view of cognition as a materially embedded and distributed practice (Clark and Chalmers 1998; Clark 2008; Hutchins 1995; Lakoff and Johnson 1999).

Taking all these interdisciplinary developments together, we can see how understanding the diverse roles that materials can play in the constitution of different social, cultural, and cognitive phenomena has become one of the central concerns of contemporary social theory. However, besides the already noted exceptions, cultural sociology has remained largely unreceptive and impervious to this widespread interest in the material. Indeed, if anything, some of the recent theoretical developments within the discipline, like the so-called "strong program," seem to go in the opposite direction, reasserting the analytical autonomy of culture, from any external source of constraint (Alexander 2003; 2008a; Gartman 2007). Similarly, the proponents of the "cognitive turn" in culture sociology have expressed little interest in materials. Their interest has been focused instead in understanding how people "use culture" (DiMaggio 1997, p. 264), that is, in how individuals employ different cognitive schemes as "tools," "repertoires," or "toolkits" to encode cultural meanings in order to justify or to motivate their actions and choices (Cerulo 2010; Swidler 1986; Vaisey 2009). This, however, does not mean that materials have been utterly ignored by cultural sociologists. Actually, materials tend to be ubiquitous in their accounts, but are often reduced to largely passive and vicarious roles, either as "means" or "vehicles" for social action and meanings, or as "background," "surface," or "context" (Pinch 2008).[1] An exception to this dominant understanding of materials and their role can be found in recent developments within the sociology of art. Over the last decade, the field has witnessed the development of what some have begun to call "a new sociology of art," which has sought to reclaim the irreducibility of artworks and the need to study them on their own as *sui generis* objects of sociological study (Benzecry 2011; Born 2011; De la Fuente 2007; DeNora 2011; Domínguez Rubio and Silva 2013; Domínguez Rubio 2012; Griswold et al. 2013; Hennion 1993; Wagner-Pacifici 2010). As the proponents of this

[1] Only recently, cultural sociologists within the strong program and the cognitive traditions have begun to acknowledge the constitutive roles that materials can play in the shaping of meaning (Alexander et al. 2012; Alexander 2008b) or in cognitive practices (e.g., Danna-Lynch 2010; Harvey 2010; Ignatow 2007).

emergent orientation claim, artworks cannot merely be seen as "outcomes" or "effects" of a prior set of social relations, or as the material "vehicles" of meaning, for this view tends to ignore their capacity to affect people and to create new social bonds, practices, and meanings. Hence, these authors argue, the need to shift our attention from the contextual factors of art to the artworks themselves and what they do. The French sociologist Antoine Hennion, for example, has proposed a theory of "mediation," which explores how music, understood as a practice constructed by a myriad human (composers, audiences) and material (scores, instruments, media) elements, is able to create powerful forms of identity and subjective attachment in its users (Hennion 1993; 2003). Following a similar path, and also focusing on music, Tia De Nora has built on James Gibson's (1979) concept of "affordances" to develop a sociological theory that explores "how music is constitutive of agency, how it is a medium with a capacity for imparting shape and texture to being, feeling and doing" (2000, p. 152).

The aim of the study that follows is, precisely, to contribute to the development of this new material sensibility by exploring how materials can play an active, constitutive role in the production and sustenance of cultural forms and meanings. My aim, however, will not be to explore the relationship between materials and actors in order to discern, for example, the different ways in which materials "mediate" or "afford" different forms of subjective attachment or cognitive processes. My interest, instead, resides in exploring how materials make possible the unfolding of different institutional and organizational forms through which the processes of cultural production and reproduction take place. I will investigate this by drawing on recent ethnographic data collected at the Museum of Modern Art in New York (MoMA).[2]

MoMA constitutes an especially pertinent case for at least three reasons. Firstly, as an institution in charge of producing the links amongn past, present, and future, MoMA constitutes a key mechanism in the material preservation and migration of contemporary culture. Secondly, MoMA also provides a privileged site to explore the material foundations of meaning. Specifically, it enables us to explore how the durability or obsolescence of different materials is a key factor in understanding why some meanings are rendered durable and reproducible, while others are made fragile and evanescent. Thirdly, MoMA provides an exceptional site to test some of the ideas of the "new sociology of art." The aim of the study that follows is, precisely, to contribute to this new orientation by demonstrating empirically how the physical properties of artworks—their weight, their obsolescence, or their portability—shape the ways in which organizational and institutional dynamics within the museum unfold over time.

The argument is structured as follows. I commence by describing how the museum operates as an "objectification machine" that endeavors to transform and stabilize artworks as meaningful "objects" that can be exhibited, classified, and circulated. I describe the ongoing effort to control the unrelenting process of physical degradation that threatens to undermine the specific relationship between material form and intention that defines artworks as meaningful and valuable objects. In the following sections, I explain how the extent to which the museum succeeds in this process of stabilization ultimately depends on the material properties of artworks and, more specifically, on

[2] Empirical data were collected during 4 months (January-April, 2011) of participant observation at MoMA's conservation department where I worked as an intern and through 34 semi-structured interviews with museum staff members conducted between 2010 and 2013.

whether they behave as "docile" or "unruly" objects. Drawing on different empirical examples, I illustrate how docile and unruly objects shape organizational and intuitional dynamics at MoMA by producing different degrees of continuity and change. I describe docile objects through the case of oil paintings to illustrate how these artworks are central to stabilizing and reproducing internal boundaries within the museum, as well as a specific division of labor and expertise, especially between conservators and curators. Second, I focus on a particular case of media-art, Nam June Paik's *Untitled*, to describe how unruly objects operate as vectors of transformation and change within the museum by posing diverse challenges to existing boundaries, by redistributing competencies and expertise, and by creating, in so doing, a new cartography of power within the museum. I then conclude by highlighting the importance of the material sensibility I advocate in this article for contemporary cultural sociology. As I claim below, the development of this material sensibility does not simply consist in supplementing existing understandings and explanations of culture by adding a hitherto ignored "material variable." The inclusion of materials, I argue, requires a fundamental re-conceptualization of how we understand cultural dynamics and how we explain them.

The museum as an objectification machine

Broadly defined, the mission of fine arts museums is to maintain the intelligibility of artworks *qua* meaningful and valuable "objects" over time.[3] In spite of the apparent simplicity of this goal, its attainment is highly problematic. One of the main reasons is that within a fine arts museum there is no such a thing as an "object"—at least if we define an "object" in the usual sense to indicate a stable or permanent correlation between form and matter (Quine 1958). Indeed, in spite of the illusion of fixity and timelessness that typically surrounds these artifacts, artworks are never still. Just like any other physical artifact, artworks are subjected to entropic processes of degradation and decay. As a result, artworks are always on the move as parts of the complex and ever-changing field of forces emerging from the interactions between their material components and the changing environments in which they are placed. As temperature, humidity, and light vary, artworks change and degrade, their colors vary and whither, their materials expand and contract, thus causing different transformations in their original aesthetic form. The seemingly unchanging and immortal artwork is thus better understood as an open-ended process of decay evolving at varying speeds, while museum collections are better conceptualized as collections of processes rather than as collections of "objects."

The ongoing physical transformation of artworks poses a constant threat to the specific form of objecthood that has traditionally separated artworks from simple artifacts. To be considered "art," an artifact must remain legible as the original, unique, authentic product of the artist's unique self and creative agency. It is the inalienable link between material form and the artist's self and creative agency that renders artworks meaningful and what

[3] Most museums' mission statements describe three main functions: to preserve, to display, and to educate (Anderson and Adams 2000). It should be noted, though, that education and display are necessarily dependent on the preservation of the artworks. Without artworks, there is nothing to display or teach about.

separates them from other types of artifacts (Baxandall 1987; Danto 1981). However, the legibility of artworks as meaningful intentional "objects" tends to be a rather fragile achievement. Take, for example, the case of Eva Hesse's *Expanded Expansion*, a sculpture that Hesse made in 1969, just a year before her untimely death, in which she employed latex as the main sculptural material (see Fig. 1). Over the following four decades, the sculpture underwent a radical transformation due to the obsolescence of its material constituents. As a result, the original translucent and ethereal sculpture has now become a yellow, brittle artifact. The physical transformation has been so radical that it has prompted a wide controversy in the art world as to whether this piece should be exhibited at all. The argument is that it is no longer clear whether this artifact can still be rightfully attributed to Eva Hesse's artistic agency, or whether the physical transformation has been such that it has fundamentally altered its intended form and meaning, thus betraying Hesse's original intention. Put differently, the ongoing physical transformation makes it unclear whether natural processes have elided the work's meaning and aesthetic value, or whether this artifact, in spite of its dramatic physical change, can still be legitimately considered an "art object."[4]

The case of *Expanded Expansion* is far from unique. All artworks undergo a continual process of physical transformation and decay that constantly threatens to undermine the specific relationship between material form and intention that defines them as meaningful and valuable "art objects." The question the museum has to solve is how to prevent, or at least how to slow down, this unremitting process of change and degradation so that artworks can retain their meaning and value as timeless "objects" of formal delectation. Such an endeavor requires a vast material and technological infrastructure involving, for example, the production of highly artificial micro-environments to sustain the climatic conditions under which each type of artwork can be stabilized; the development of different technologies and practices of conservation to undo, or at least control, the transformations caused by time and natural degradation; as well as the deployment of various display techniques to represent artworks as discrete and autonomous "objects" existing independently of the historical and social context in which they were created.

Yet, crucially for my argument, not every artwork lends itself equally to these processes of stabilization, preservation, and objectification. That is, not every artwork can be transformed into, and represented as, a discrete and autonomous "object." Some artworks behave as "docile objects." These are the artworks that can be easily stabilized and be placed in a stable "object position." However, other artworks, like Eva Hesse's *Expanded Expansion*, behave as what I call "unruly objects," that is, as artworks that cannot be easily stabilized and transformed into timeless "objects" of formal delectation. Here it is important to emphasize that the distinction between "docile" and "unruly" objects is not meant to differentiate "kinds" of artworks. Rather, my aim is to differentiate the effects that different material behaviors can have within particular organizational or institutional contexts. In other words, my claim is not that some artworks are inherently docile or unruly; but rather that some artworks *behave* as docile and unruly objects within specific organizational and institutional contexts. *Expanded Expansion* is a case in point. If this sculpture behaves as an

[4] The controversy surrounding *Expanded Expansion* and other works by Hesse was one of the main themes of the 2008 conference *The Object in Transition*: *a Cross-Disciplinary Conference on the Preservation and Study of Modern Art* at the Getty (see also Keats 2011; Michaels 2003).

Fig. 1 Eva Hesse, *Expanded Expansion*. Fiberglass, polyester resin, latex, and cheesecloth, 10 feet 2 inches × 25 feet (309.9×762 cm) overall. *Left* 1969. *Right*, 2010 © The Estate of Eva Hesse. Courtesy Hauser & Wirth

unruly object this is not simply due to the inherently unstable properties of its material components. Latex is indeed a highly unstable and evanescent material. However, there is nothing that makes latex inherently unruly. This material *only* becomes unruly within the institutional context of the museum, where material stability is required to preserve the identity between material form and artist's intention.[5] Docility and unruliness, therefore, are not meant to describe what philosophers call "primary qualities", i.e., qualities that inhere to artifacts or materials. Rather, they are meant to describe relational behavioral properties that emerge from the relationship between the material properties of different artifacts and the institutional and organizational context in which they operate at a given time. Docility and unruliness will be used here to indicate the two extremes of a *continuum* of possible material behaviors. The image of a "*continuum* of behaviors" is useful to highlight two things. First, it helps me to underline that the distinction between docility and unruliness is not an either/or question, but a question of degree. In other words, my claim is not that artworks can be classified as being *either* docile *or* unruly. Rather, my claim is that artworks have different degrees of docility and unruliness. Second, the image of *continuum* helps to emphasize the relational, contingent, and temporal character of docility and unruliness. In other words, it helps me to emphasize that artworks behave differently in different organizational and institutional contexts. As I will show, artworks behave differently at different times and organizational and institutional contexts. As a matter of fact, some of the artworks that once behaved as unruly objects now behave as exemplary docile objects.

In what follows, I explore these points by focusing on two artworks whose behavior is close to the ideal of docile and unruly objects. First, I examine oil paintings, whose behavior tends to be close to the ideal of docile objects. Then, I examine a particular instance of media-art, Nam June Paik's *Untitled*, as an example of an artwork that behaves as an exemplary unruly object. The aim of the empirical analysis of these cases is to show how docile and unruly objects actively shape internal boundaries and hierarchies within the museum and, through them, the wider processes of institutional and cultural reproduction.

Docile objects

Docile objects can be defined as those artworks that diligently occupy their designated "object-positions" and comply with the set of tasks and functions that have been entrusted to

[5] The very same physical properties that make latex unruly within a museum are what make this material especially docile in the production of medical gloves or condoms, where disposability and replace ability are valued over stability and uniqueness.

them, thereby enabling a smooth reproduction of both subject and object-positions within a given organization. Moreover, docile objects can be identified because they behave as *stable*, *classifiable*, *knowable*, and *portable* artifacts. These behavioral properties make docile objects particularly elusive objects of study. Their stability, classifiability, knowability, and portability mean that they often go unnoticed, embedded in the quotidian activities and structures that define the common run of things. As such, they tend to be easily disregarded as uninteresting and boring sociological objects of study. Yet, as I show, although invisible and perhaps even boring, the work docile objects perform is vital to understand how different social practices, classifications, boundaries, and meanings are standardized and acquire a taken-for-granted status. In other words, I contend that docile objects are essential elements in the creation of those organizational and institutional continuities that lead to the processes of cultural preservation and reproduction. In what follows, I bring to light the invisible work of docile objects through the particular case of oil paintings.

Stability

Since their popularization in the fifteenth century, oil paintings have become the canonical medium of fine art as well as the "museum object" par excellence. Although simple at first sight, oil paintings are indeed complex artifacts composed of an interlocking system of different layers of paint, binding agents, varnish, frames, and linings, which are always "on the move" as these elements interact with each other and with the changing environment in which these paintings are placed (see Fig. 2).

As a result of the ongoing interactions among their constituents, oil paintings typically undergo physical transformations that can potentially change their original aesthetic form and compromise their status as meaningful and valuable art objects. For the most part, these transformations tend to be modest and controllable within contemporary art museums. One of the reasons for this is to be found within oil itself. Oil is generally a stable medium—highly resistent to environmental variations and color changes over time, what generally results in a long life expectancy for these paintings.

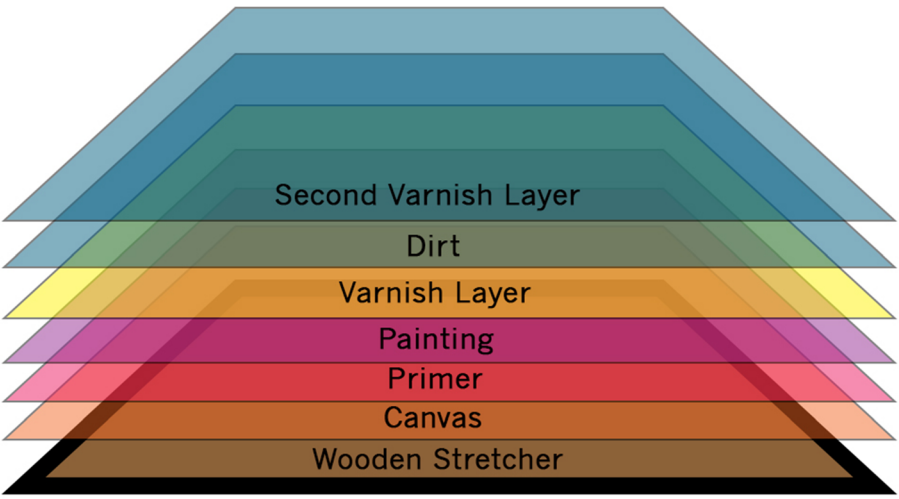

Fig. 2 Typical inner structure of an oil painting

This, however, is not always the case. Some oil paintings suffer from what is called "inherent vice," which results from the incompatibility of materials the artist used in the production of the painting, and which has the effect of producing an irreparable process of degradation. In addition to this, oil paintings have not always behaved as docile objects. Prior to the twentieth century, oil paintings in museum collections tended to behave as unruly objects. The lack of electricity, and heating, ventilation, and air conditioning systems (HVAC systems) in museums resulted in highly unstable and variable environments in which oil paintings could not be easily stabilized, and resulted in reduced life spans for these artworks. To prevent this, new technical solutions and practices of conservation have been developed over the last centuries, such as the varnishes applied to isolate their painted surfaces from fluctuating environments and airborne particles, the lining techniques developed to prevent the ongoing mechanical contraction and expansion of the canvas, or the different conservation techniques deployed to repair damaged paint layers. The development of HVAC systems over the last century has enabled museums to engineer highly controlled environments specifically designed to create the particular climatic conditions that these paintings require for their display and stabilization. The combination of all these elements has transformed oil paintings from relatively unruly objects into one of the most stable and "docile" artworks within contemporary art museums. Thus, when I describe oil paintings as docile I am not referring to an inherent material property of these artworks. Rather, I am referring to aparticular and contingent accomplishment that was made possible thanks to the physical endurance of the material constituents of these paintings (such as oil), the various preservations techniques developed around them, and the artificial physical and climatic environments that have been created over time to stabilize them.

The stability of these paintings has several consequences for the museum. One consequence is that, unlike more fragile artworks such as photography or prints, oil paintings can be on display for long periods of time, a property that is essential to confer durability to the institutional narratives built upon them. At MoMA, for example, the ability to have iconic oil paintings permanently on view, like Picasso's *Demoiselles D'Avignon*, Van Gogh's *Starry Night*, or the French impressionists, has played a decisive role in the popularization of these artworks and in the creation of the master narrative that has come to define the canon of modern art, as well as MoMA's pivotal position within it (Lorente 2011). More importantly, the stability of these paintings has been crucial to define the organizational structure of the museum as well as the dynamics of meaning reproduction that take place within it. One of the places in which this becomes evident is in the definition of the boundaries separating conservators and curators, two of the main agents involved in the process of meaning reproduction at MoMA.

Curators and conservators occupy very different roles and power positions within most fine arts museums. Broadly defined, the role of curators has been that of discovering and selecting the best art of the day to bring it into the public eye. Although initially relatively silent figures operating in the back of museums, caring and managing the collections, curators have become over the last decades one of the most visible and powerful gatekeepers in the art world. As exhibitions became the standard medium for the representation and display of art over the course of the twentieth century, curators gained the power to sanction and promote artist careers by controlling their access to the legitimating space of the museum (Altshuler 1994). This is particularly evident at

MoMA, whose powerful curators have played a central role in promoting and integrating different avant-garde movements, like abstract expressionism or minimalism, into the canon of Western art (Kantor 2003). At MoMA, curators have acquired over time an unquestionable monopoly over aesthetic judgment and meaning as well as over the production of institutional narratives. Not only do they design and produce exhibitions, but they also control the official discourse of the museum through the production of exhibition catalogues and scholarly articles. This renders curators pivotal in the power structure of the museum, which ultimately depends on them to attract audiences, to define its institutional narratives as well as its overall position within the art world.

The central position of curators contrasts with that of conservators. The field of conservation, which developed in the late nineteenth century and early twentieth century, has been only partially incorporated into the formal structure of most fine arts museums.[6] In the case of MoMA, the museum operated without a conservation department for almost three decades. It was only in 1958, after a devastating fire destroyed several masterpieces, including two recently acquired Monet's *Water Lilies*, that MoMA decided to establish a conservation department. Essentially, the mission of the conservation department is to preserve the physical integrity of the artworks constituting the collection. Thus, if curators can be described as the custodians of the aesthetic integrity of artworks, then conservators can be described as the custodians of their material integrity. This distinction not only draws a specific division of labor but also presupposes a specific hierarchy of knowledge at MoMA. Unlike curators, who are typically trained in art history, conservators are formally trained as natural scientists with ample expertise about the chemical and mechanical properties of materials. This scientific knowledge legitimates conservators to produce scientific judgments about the material aspects of artworks, but not about their meaning. A conservator is entitled to say, for example, that a painting shows a significant loss of its green hue as a result of an undue exposure to light, but she is not entitled to assess whether or how such loss affects the meaning of the artwork. Only curators are formally entitled to make those judgments, as they are seen as the only legitimate interpreters of aesthetic meaning within the museum. Furthermore, any conservation decision, like removing the yellowed varnish of an old painting, cleaning the surface of an artwork, or inpainting (i.e., filling damaged areas of a painting), is first submitted to the aesthetic judgment of the curator, who has the ultimate authority to decide whether the proposed conservation treatment compromises the intended meaning of the work and its overall aesthetic integrity.

The physical stability of most oil paintings has been crucial in creating and institutionalizing a hierarchical division of labor and knowledge between curators and conservators. Their stability offers very few opportunities to collapse the gap separating conservation and curatorial practices and knowledge's. A major painting like Picasso's *Demoiselles D'Avignon* only requires conservation treatment every 20 or 30 years, and these treatments rarely amount to more than routine and mechanical operations that do not compromise its outward aesthetic form.

[6] Indeed, many mid-size and small museums do not have their own conservation department on-site. Subcontracted individual conservators or labs are the ones responsible for conservation in these museums.

For example, when the *Demoiselles* was last treated at MoMA in 2004, conservators only had to clean the dirt that had accumulated since it was last treated in 1963, remove a layer of varnish, undo some conservation treatments done in 1950, and fill in some minor paint losses. The routine nature of these operations meant that the conservator in charge of the project did not have to perform jobs that could compromise the aesthetic form of the *Demoiselles*, or its meaning, which enabled him to avoid negotiations or confrontations with the chief curator overseeing the conservation process. In this sense, oil paintings enable a relatively peaceful coexistence between conservators and curators by stabilizing a peculiar hierarchy of knowledge and power in which conservators are subsumed under curators, who retain the monopoly over aesthetic decisions and meaning-making processes (see Fig. 3).

Classifiability and knowability

Classification is one of the critical processes through which institutions are able to produce and to sustain meaning and order. It is through classification that institutions effectively standardize and synchronize actions and meanings across different domains, organize coherent systems of categories, distribute forms of value, and produce univocal and legible objects of knowledge (Bowker and Star 1999; Strand 2011). These processes are particularly critical in museums, as institutions that have within their purview the creation, management, and reproduction of complex cultural taxonomies.

Museum classifications have tended to be described as coventionally produced orders that place and mobilize artworks into a system of pre-existing social and cultural categories or schemes. Following this view, most scholarly attention has been devoted to reveal how museum classifications reflect or promote, either wittingly or unwittingly, larger cultural constructs, such as national identities, colonialism, or imperialism (Bennett 1995; Karp and Lavine 1991). Much less attention, however, has been paid

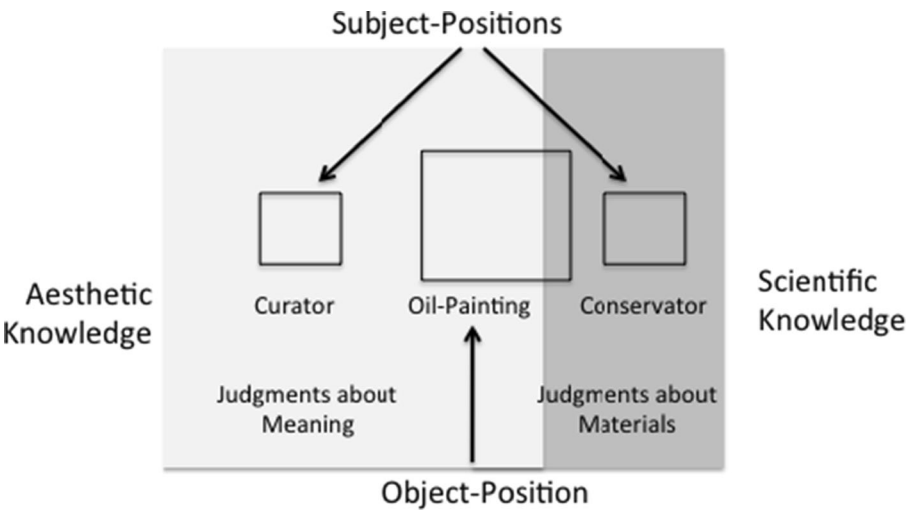

Fig. 3 Asymmetrical boundaries of judgment and expertise created around oil-paintings at MoMA

to how these classifications are produced *in practice* and to the peculiar role that artworks play in such process. This is precisely where my interest lies.

As I show below, more than conventional orders born out of underlying social or cultural principles or schemes and imposed onto the tabula rasa of material things, museum classifications are better understood as dynamic and open-ended processes contingently unfolding out of the interplay between classificatory principles and the physical properties of the "stuff" they seek to organize. Artworks, in this sense, are more than mere inert stuff organized and classified according to external "social" or "cultural" principles. They are active elements playing a key structuring role in the production of classifications by actively shaping how categories are drawn and redrawn and how different meanings and forms of value are produced and distributed within the museum.

The structuring role that materials play in museum classifications is patent at MoMA, an institution in charge of organizing and taking care of more than 150,000 artworks, 22,000 films, and four million film stills, as well as the individual files of more than 70,000 artists. The classification of this vast collection is a daunting task, not only because the classificatory principles change over time, but also because the collection itself is continually growing as a result of new acquisitions. Each year, MoMA acquires several hundred new artworks, which have to be duly placed in categories that define their position within the collection as well as their relations to other artworks.

The main challenge of this classificatory process resides in the fact that artworks rarely, if ever, come into the museum as single "objects." Instead, they usually come as parts of what is called in museum parlance a "constituency." An artwork constituency involves all the physical components that typically come with the artwork, like frames in the case of paintings, or different props in the case of installations or sculptures, as well as documents, like contracts, installation instructions, or artist notes. These components define the boundaries of the artwork and establish their meaning and value. Contracts, for example, are essential to determining the ownership and custodial history of artworks, something indispensable to establishing that an artwork is authentic. Artist notes provide information about the specific personal and historical contexts in which artworks were made and are crucial to construct curatorial and historiographical interpretations. Other documents, like the display and assemblage instructions accompanying more complex artworks, are fundamental to ensure the reproducibility of these artworks as well as the authenticity of their future iterations. What an artwork is, therefore, is inseparable from its constituency.

The first task when acquiring an artwork is to transform the complex constituencies in which they are inserted into legible, manageable, and unified "objects of knowledge." To achieve this, the first operation upon receiving a new artwork is to classify and separate those components containing aesthetic value—i.e., the art "proper"—from those "non-art" components containing other forms of value, like "research" or "legal" value. Tracing the boundary between these forms of value—a task reserved at MoMA to curators—defines the physical location of each component within the museum and, more importantly, its location within different realms of knowledge and expertise. Thus, those components that are considered to have "aesthetic value"—e.g., an oil canvas— become part of the museum's permanent collection and are placed into art

storage facilities under the supervision of conservators and curators. Those components that are deemed to have "research" or "legal" value, like artists' notes, instructions, or contracts, are placed in the museum's archives and fall under the purview of archivists and museum lawyers.

Once the initial boundaries between different forms of value have been established and the physical components are stored, they are entered into the database,[7] where artwork constituencies are transformed into information through their conversion into "unique records." These records contains "tombstone information" about the artwork (like artist name and life dates, title, creation date, medium, dimensions, provenance) as well as detailed information about all the components, which are given a unique extension number that identifies them as inalienable parts of a given constituency and that defines their particular relation to the whole.[8]

The transformation of complex artwork constituencies into unified "database objects" enables a smooth distribution and exchange of information within the museum as well the coordination of practices in and across departments. Indeed, for most museum staff these database objects are the primary means through which they know and manage artworks, as they rarely have to deal with actual physical components, which are stored in different physical locations across the museum. Most tasks in the museum take place through these database objects. For example, these database objects are what curators employ to create the "exhibition checklists" that circulate across the different departments to coordinate actions for the organization of exhibitions. The ability of artworks to be classified and translated into unified database objects is crucial to enable the circulation of knowledge within the museum as well as the coordination of activities.

Returning to oil paintings, we can see how, here again, they tend to behave as exemplary docile objects. The typically discrete and self-contained nature of most oil paintings' constituencies facilitates the identification and classifications of their components. A standard oil painting, like Picasso's *Demoiselles*, is typically composed of a couple of artifacts, the canvas and the frame, which are categorized as the art itself and a component. The rest of components, like contracts or artist notes, are uncontroversially defined as "archival material." The ease in establishing these boundaries makes oil paintings easily translatable into database objects. Most of the database entries for these artworks typically contain just a handful of components, which makes them easily traceable and communicable. In addition, the stability of their physical components makes them remarkably stable objects of knowledge, since they rarely, if ever, defect from the categories in which they have been initially inserted. For example, the canvas of the *Demoiselles* is unlikely to change so dramatically as to require its reclassification as archival material—as could be the case with a work like Hesse's *Expanded Expansion*. Finally, the number of components in their constituencies is unlikely to change, something that, as we see below, is not the case with more complicated and fragile—"unruly"—artworks.

All these properties tend to make most oil paintings legible, manageable, and stable "objects of knowledge." They can be easily classified within existing categories and smoothly inserted into the museum's databaseenabling, in so doing, an unproblematic

[7] Like most major museums, MoMA uses The Museum Systems (TMS).

[8] For example, in the case of an oil painting, the canvas is assigned a unique number (e.g., 300.456), while the other components are assigned a suffix identifying their function within the constituency, for example, FR, for main frames (300.456.FR) and TR for the travel frames (300.456.TR).

reproduction of categories and classifications as well as a fluid circulation of information and knowledge within the museum.

Portability

With the exceptions of some iconic artworks perennially on display, the life artworks at MoMA is characterized by an ongoing movement within different internal and external circuits. Internally, the endless carousel of exhibitions keeps artworks traveling back and forth between the museum galleries in midtown Manhattan and its main storage facility located in Queens. Only in 2012, MoMA organized more than 30 temporal exhibitions and four floor rotations of the permanent collection, which resulted in several hundreds of artworks traveling each week in the especially conditioned trucks that cover the three-mile trip between Queens and MoMA.

This ongoing process of circulation poses a constant threat to the physical well-being of these artworks as well as to their constituencies, which can be damaged in transit, or even go amiss. But here again oil paintings tend to behave as exemplary "docile" objects, being typically highly portable and able to be moved without posing a significant risk to their integrity thanks to the physical stability of their components. The limited number of components in their constituencies also means that they can be easily monitored and tracked while traveling. These properties are even more important once these artworks arrive at the physical space of the museum.

Far from being neutral containers of art, museums provide the built environment of meaning. The physical space of the museum plays a key role in shaping the circulation of art and, through it, the kind of narratives and meanings that can be produced. Indeed, the kind of physical positions artworks can occupy are often dependent on seemingly banal things like the locations of windows and doors, the presence of loading docks, elevators, or retaining walls, or the existence of art handling equipment and specially trained personnel. [9]

One of the advantages of oil paintings is that their portability makes them compatible with most museum architectures. These paintings tend to be slim and not excessively heavy or big, which allows them to be easily transported through museum doors, corridors, and lifts. Moreover, unlike more unwieldy artworks, like ponderous sculptures requiring especially designed spaces, or media-based artworks demanding complex technological installations, most oil paintings can be hung on virtually any wall. This adds great flexibility and pliability to the creation of curatorial narratives, as curators can play around with the position of these artworks to enable different narrative structures, something that is not possible with those artworks whose position cannot be modified at will as they require specific installations for their display. This portability of oil paintings serves to reinforce the kind of division of labor and subject-positions that I have already described in relation to curators and conservators. Specifically, it reinforces the autonomy and power of curators, who can exert full control over the emplacement of narratives in the museum without requiring the intervention of

[9] One of the most evident examples of how museums architectures shape narratives is the Guggenheim in New York, where the spiral ramp forces a specific linearity on exhibition narratives and where the tilted walls makes for difficult display of most artworks, including oil paintings.

other museum staff, like conservators, typically confined to an auxiliary role (see Fig. 4).

The portability of oil paintings also plays a key role in the configuration of the external circuits connecting MoMA to other museums and institution of the art world. Over the last decades, the globalization of the art world has created a massive system of exchange in which artworks are continually circulating as part of traveling exhibitions or as loans (Halle and Robinson 2010). MoMA loans around 600 works per year and receives around 1,250. This enormous physical movement of culture has required the development of a complex set of regulations designed to enable the movement of artworks across political borders as well as the development of costly institutional and transport infrastructures to guarantee their physical safety. Each artwork must travel on specially designed climate-controlled crates that produce artificial "traveling environments." Specially trained couriers must accompany traveling works to verify that the works are not mishandled and are properly unpacked and installed at the receiving institution. Additionally, receiving museums must comply with a set of stringent architectural and climatic standards that guarantee the physical well-being of the artwork while it is on their premises.

Oil paintings tend to be amongst the most docile objects to circulate in these circuits. Their uniform form—they tend to be either squares or rectangles—has enabled the standardization of storage and traveling infrastructures. In contrast to sculptures, which require custom-made crates, oil paintings can use exchangeable crates, something that lowers considerably their traveling costs. Their uniform form also means that they do not require complex unpacking and installation instructions, thus enabling the standardization of these processes. More importantly, their stability and homogeneous material constitution has also enabled the standardization of environments, architectural designs, and procedures that are necessary to display these artworks. The properties of these paintings makes them a crucial lubricant in the system of exchange connecting MoMA to other museums and art institutions, as well as key agents enabling processes of organizational isomorphism and institutional homogenization among contemporary art museums.

Fig. 4 Curator (seated), deciding the positions of paintings during installation

Docile objects as agents of stability

In previous sections, I have described oil paintings as artworks that *tend* to behave as docile objects within contemporary art museums. I emphasize "tend" because not all oil paintings behave as ideal docile objects. Some oil paintings are indeed not very stable (e.g., collages mixing oil with other materials); others are not easily classifiable (e.g., some of Rauschenberg's works mixing oil painting and sculpture); while others are not even square-shaped (e.g., some Frank Stella paintings) or are too large to be easily transported and installed (e.g., Cy Twombly *Untitled*[10]). My claim, therefore, is not that all oil paintings behave as docile objects, but rather that, if we think of docility and unruliness as the two extremes of a *continuum*, oil paintings tend to be, in general, the artworks whose behavior comes closest to ideal docile objects.

The docility of these paintings, however, should not be confounded with passivity. What the previous sections show is not how oil paintings are subsumed under a pre-existing set of museums' standards, classifications, and practices. What we have seen, instead, is how those standards, classifications, and practices have emerged partly thanks to the physical properties of oil paintings. Put differently, what we have seen is how oil paintings play a constitutive role in helping to create and to reproduce the very conditions under which they can be constructed and represented as docile objects. For example, we have seen how oil paintings are central in tracing and maintaining the boundaries separating curators and conservators or in keeping knowledge and information flowing in the museum. Their stability, classifiability, and portability play a crucial role in providing a stable material infrastructure that minimizes conflicts and enables values, norms, and meanings to take on a taken for granted status. We have explored how the physical properties of these artworks enable the standardization of processes within the museum as well as between museums by facilitating the creation of organizational homologies between different museums. The docility of these paintings enables them to be easily stabilized and represented as timeless "objects" of formal delectation, what enables the museum to gain legitimacy by fulfilling its role as a neutral caretaker in charge of preserving our cultural heritage. Oil paintings, therefore, are not merely inert material stuff organized according to some external organizational or institutional dynamics. Rather, they constitute the material medium through which these organizational and institutional dynamics unfold over time. In summary, oil paintings, along with all the other artworks that behave as docile objects in the museum, play a key role in creating the kind of continuity and stability that enables their own reproduction as cultural objects as well as that of the institution.

Unruly objects and the dynamics of change

Unruly objects can be defined as those artworks that cannot be easily placed within existing object-positions thus disrupting established dynamics and routines, forcing new collaborations and adjustments, breaking boundaries and challenging institutionalized subject and object positions. In practical terms, unruly objects can be identified

[10] You can see the installation complex process of this painting here: http://www.moma.org/explore/inside_out/2011/10/27/installing-twombly-at-moma/.

as those artworks that behave as *variable* rather than stable, *elusive* rather than classifiable, and *unwieldy* rather than portable objects. If docile objects are typically elusive objects of study, unruly objects tend to be highly visible. They are typically described as "problems," "disruptions," "glitches," or "challenges" that need to be fixed or solved. They are seen as those artworks that need to be transformed into docile objects. However, and this is perhaps their most distinctive feature, this transformation cannot be accomplished without altering the relations and practices wherein they are inserted. Unruly objects, therefore, are characterized by the creation of organizational and institutional discontinuities that disrupt the production and sustenance of the processes whereby social practices, classifications, boundaries, and meanings are standardized and acquire their taken-for-granted nature. For this reason, unruly objects can be described as vectors of institutional and cultural change: as elements that require creative adaptations and negotiations, and the shifting of positions and boundaries around them.

In what follows, I focus on media-art, which broadly includes all those art forms that rely on electronic media for their display and storage. Examples of this are video art, digital art, net-art, as well as various forms of installation and performance art. I explore one specific work, *Untitled* by Nam June Paik, an artwork that behaves as an exemplary unruly object. But before I proceed, let me first briefly introduce this artwork.

Nam June Paik's "Untitled" (1993) as an unruly object

Known as the "Father of video-art," Nam June Paik (1932–2006) is widely acknowledged as one of the most influential figures of contemporary art since the 1960s.[11] Initially trained as a classical pianist in Korea, Paik rose to artistic stardom in the early 1960s when he began experimenting with video and television as legitimate artistic media. One of the leitmotifs of Paik's *oeuvre* was his attempt to displace the television from its position as one the most banal and ubiquitous objects of consumption into a unique aesthetic object on its own right. Always in the provocative and playful spirit of *Fluxus*, a movement to which he remained closely associated throughout his career, Paik experimented with different modes of appropriating and re-contextualizing television: from large-scale installations composed of dozens of television sets, like in his 1996 *Electronic Super-Highway*, to minimal sculptures based on single monitors that he altered internally to display abstract forms and patterns on the screen, like *Zen for Tv* (1963).

Untitled, produced in 1993, is an example of this exploration. Conceived as a homage to John Cage,[12] this work consists of an automatic player piano surrounded by 15 cathode ray tube (CRT) monitors of varying sizes; a flood-light illuminating the unmanned keyboard; two laser discs placed on both sides of the piano; as well as numerous cables connecting all these elements. As the player piano plays, two live-feed

[11] For an overview of Paik's *oeuvre* see (Lee and Rennert 2011).

[12] After finishing his studies at the University of Tokyo in 1956, Paik travelled to the International Summer Course in New Music in Darmstadt, Germany, to study piano and music history. It was during this time that Paik met John Cage, whose avant-garde experiments with randomness and chance in music profoundly shaped Paik's development as a visual artist. After leaving Germany, Paik and Cage developed a long-standing friendship that resulted in various artistic collaborations and intellectual exchanges. Paik devoted several artworks to John Cage, including, for example, "Hommage à John Cage" (1959–60), "Robot K-456" (1964), "John Cage Robot II" (1995), or *Untitled* (1993).

cameras placed at the sides display the unmanned keyboard on some of the screens, while others display a cascade of fast-changing images showing Paik's hands and feet playing a piano and clips of performances of the late John Cage (see Fig. 5).

During my fieldwork at MoMA, I had to opportunity to work on a conservation proposal for *Untitled*. What follows is a detailed account of the challenges that this proposal encountered, which reveal *Untitled* as an exemplary unruly object.

Variability

One of the defining features of media-artworks is the inherent obsolescence of the technologies upon which these artworks depend for their storage and display. Indeed, most media-art relies on technologies produced for mass consumption markets, for which usability and cost efficiency, rather than durability, are often the overriding design concerns. Video art, for example, requires videotapes, film, and optical discs, usually made of fragile and rapidly degrading materials like plastics or magnetic tape. As a result, the life span of these devices tends to be quite short. The average life span of magnetic videotapes is of just 20 years and that of CDs and DVDs is of only about 15 years. This inherent physical obsolescence is further aggravated by the unrelenting innovation in information and communication technologies we have witnessed over the last decades, which has rendered these technologies extremely short-lived. Many of the technologies that were ubiquitous just a decade ago, like cassette tapes or floppy disks, have virtually disappeared today.

The combined effect resulting from the inherent material obsolescence of these technologies and their constant replacement by newer ones is producing a novel and increasingly intractable paradox in the process of cultural reproduction: While it is possible successfully to store, preserve, and display cultural artifacts produced centuries and even millennia ago, preserving cultural artifacts produced just a few decades ago poses a formidable, often insurmountable, challenge. This is, precisely, the case of Nam June Paik's *Untitled*.

Fig. 5 Nam June Pain, *Untitled. 1993* layer piano, 15 televisions, two cameras, two laser disc players, one electric light and light bulb, and wires, Overall approximately 8′ 4″ × 8′ 9″ × 48″ (254×266.7×121.9 cm), including laser disc player and lamp @ MoMA

Only two decades after being produced, *Untitled* already runs the risk of becoming irremediably lost as a result of its dependence on largely outdated technologies. The original 1993 *Untitled* was based on U-Matic decks, CRT monitors, analogical live-feed cameras, and a player piano running on a floppy disk. By the time it was first exhibited at MoMA in 2004, many of these technological components were already obsolete and had to be replaced by newer technologies. The original U-Matic decks, for example, were replaced by two laser-discs players, still a popular and reliable format for professional recordings at the time. The content stored in the original U-Matic tapes, which included videos of Cage's performances and footage created by Nam June Paik himself, had to be transferred into the new laser disc players. Some malfunctioning CRT monitors were also replaced by newer ones, as were the two original live-feed cameras. Thus, by the time *Untitled* was first exhibited at MoMA, it already had been "migrated" from the original 1993 piece. This initial migration, however, was sanctioned by Nam June Paik himself, who worked with the museum to decide which replacements were adequate to convey the original meaning of the work.

Nam June Paik died in 2006 thus leaving the museum alone in future decision-taking processes involving *Untitled*. In 2011, conservators run a check on *Untitled* following the request of a curator who was considering including it in an upcoming exhibition. During the check, conservators found out that the original player piano was broken and needed to be replaced. However, the manufacturing company had discontinued the production of these old floppy-disk models and only provided a newer digital Mp3 alternative. This posed a considerable problem for the museum, as Mp3 is a highly compressed and unreliable format. Transferring contents to this technology meant more, rather than less, instability. Additionally, the laser-discs that had replaced the original U-Matic players in 2004 were also malfunctioning and needed to be replaced by newer technologies. Here again the two available options, DVD and Blue-Ray players, were considered problematic by curators, as they both involved a significant departure from *Untitled's* original form. Indeed, the typically sleek and slim aesthetic of these devices offers a stark contrast with the bulky and rough aesthetic of the original U-Matic players or even the 2004 laser discs. This aesthetic problem was even more acute in the case of the CRT monitors, many of which had started to malfunction. The current available technology to replace them, flat panel monitors, would imply a radical transformation of the outward aesthetics of *Untitled*, and could create readings that departed from the original meaning of the artwork.

The museum thus faced an interesting dilemma. It could "freeze" the artwork as it was in 2011, thus leaving *Untitled* as Nam June Paik last modified it and abstaining from making any further modification. This option would secure the authenticity of the artwork, but at the cost of sentencing it to a sure death, as most of the technologies required to run *Untitled* were already malfunctioning or obsolete. An alternative course of action would be to keep *Untitled* alive by constantly migrating it to newer technological platforms. This solution would imply altering *Untitled's* form and potentially its meaning, thus giving rise to questions about its authenticity and authorship since the museum would be effectively usurping Nan June Paik's role as the author of the artwork.

The dilemma MoMA faced with *Untitled* in 2011 reveals the deeper and lager conundrum facing contemporary art museums dealing with media-artworks: in contrast with more traditional artworks, like oil paintings, the preservation of media-artworks is

not based on their capacity to be stabilized, but on their capacities to move and to change. These artworks can only survive if they are continually "migrated" to different technological platforms. This migratory process, however, requires a radical redefinition of the logic of cultural reproduction within the museum. Indeed, if the reproduction of artworks has been hitherto premised upon the museum's ability to stabilize these artworks physically, in the case of media-art their reproduction is based on the museum's ability to keep them in constant circulation.

The creation and sustenance of this circulation process requires a significant reorganization of existing subject-positions and boundaries within the museum, as well as of practices of judgment and knowledge-production. This is evident in the case of curators and conservators. The nature of media artworks, in which meaning is wedded to obsolescent and rapidly changing technological platforms makes the boundaries between conservation and curatorial knowledge's and practices increasingly unstable and contentious. If the stability of a traditional oil painting like the *Demoiselles D'Avignon* only requires curators and conservators to test these boundaries every 20 or 30 years, a work like *Untitled* requires an ongoing, and never-ending, process of testing, negotiation, and compromises. As media-artworks migrate from one technological platform to the next, they undergo a number of internal and external modifications that compromise the authenticity of the artwork and trigger debates about whether these modifications change the original meaning of the work. These artworks compel conservators to go beyond their traditional roles and face decisions that affect the very definition of the artwork as well as its meaning. In the case of *Untitled*, for example, each decision—like changing the laserdiscs players for DVDs—not only implied a potential radical change in the outward aesthetics of the piece, and therefore of its meaning, but also involved a decision about what is valuable and meaningful and, importantly, about who has the right knowledge and authority to decide these questions. Although curators still have the last word in terms of establishing meaning and value, the unstable nature of these artworks makes conservators' knowledge more crucial than before. As a result, conservators are increasingly seen as active agents in the decision-making processes that shape the boundaries and meanings of the artwork. What used to be the sole domain of curators, the realm of meaning, thus becomes through these artworks an overlapping area, a new and open-ended space of conflict and negotiation open to different agents and knowledges.

Importantly, the instability of these artworks is not only redefining the subject-positions and balance of power of conservators and curators, it is also creating new subject-positions. As already noted, most of these media-artworks rely on mass-consumption technologies that require experts and forms of knowledge that have typically resided outside the museum, and indeed the art world in general, like computer scientists, programmers, and other audiovisual experts. The incorporation of these experts creates new areas of conflict, as their judgments, typically tied to criteria of functionality, have to compete with those of curators and conservators to establish the boundaries of the artworks as well as the relative value and meaning of each component (see Fig. 6).

The instability of media-artworks is giving way to a reconfiguration of subject-positions in the museum and to the institutionalization of new boundaries and decision-taking processes. At MoMA, this process has crystallized in the creation of the Media Working Group, a new interdisciplinary group composed of curators, conservators,

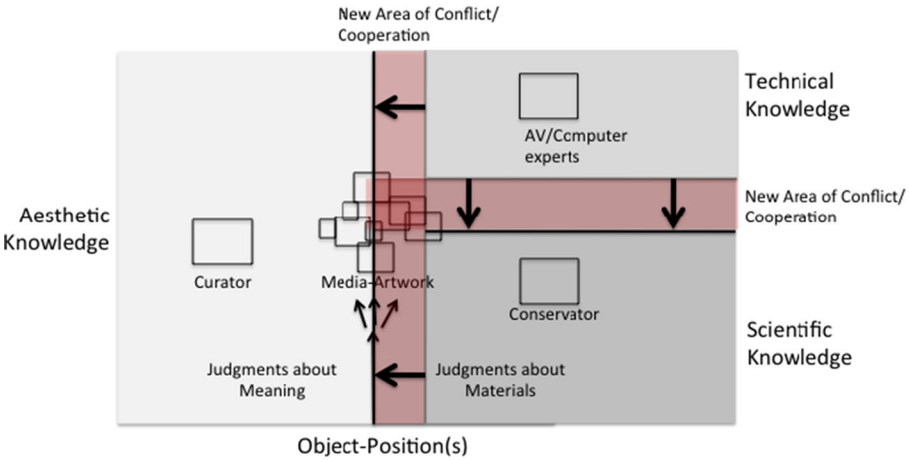

Fig. 6 Reorganization of boundaries of judgment and knowledge that takes place around media-artworks at MoMA

archivists, and audiovisual experts who collectively deal with decisions concerning the acquisition, display, and preservation of media artworks. The creation of this group constitutes a significant departure from the traditionally hierarchical ways in which the museum has organized and produced knowledge and meaning about its artworks. And importantly for the argument of this article, it shows the role of unruly objects as vectors of change.

Elusiveness

The second feature that defines media-artworks as unruly objects is their resistance to complying with the classificatory processes through which artworks are transformed into manageable objects of knowledge. As we saw earlier, this transformation starts with the process of classification whereby art constituencies are separated into the art itself and the rest of components that usually accompany these artworks as they enter the museum. In the case of media-artworks, however, this boundary-making process is far from straightforward.

Unlike traditional sculptures or paintings, media-based artworks do not exist as single and unique "objects"—e.g., a canvas. Instead, the typical constituency of a media-art work is composed of dozens, often hundreds, of highly vulnerable and rapidly obsolescent components. *Untitled*, for example, exists through a constituency involving more than 100 different artifacts, including the 15 monitors on display, five back-up monitors stored by the museum, four laser discs, a flood-light, two live-feed cameras, several floppy disks storing the music, as well as dozens cables and several dozes electronic files storing the audiovisual content (see Fig. 7).

The obvious question when facing these constituencies is how to establish the boundary separating art from non-art. Should one, for example, consider CRT monitors or laserdisc players as integral to the value and meaning of the work and therefore as *sui generis* aesthetic sculptural elements? Or should these be seen as mere functional display devices? The kind of boundaries curators and conservators establish defines how these artworks are categorized and distributed in the museum and, more

Fig. 7 Some of the boxes and crates containing "Untitled"

importantly, where their artistic value and meaning reside. For example, adjudicating CRT monitors to the category of art means that they become part of the museum's permanent collection, and that, in compliance with the museum's foundational mission statement, they must be preserved in perpetuity. If, on the contrary, they are considered "non-dedicated components," that is, mere technological means rather than components containing aesthetic value and meaning, the monitors can be unproblematically replaced by using the audiovisual pool where the museum stores all its non-art technological equipment.

This dilemma is further aggravated by the fact that all these boundaries and categories have to be inevitably revisited and redrawn as the different components become dysfunctional or obsolete. In the case of *Untitled*, for example, some of the components that were initially deemed "art," like the original CRT monitors or the U-matic players, had to be reclassified as "archival material" after they stopped working. Conversely, technological components initially without any aesthetic value or meaning, like the laser-disc players replacing the original U-Matic players, took on an aesthetic meaning and value when they were incorporated into the artwork as integral sculptural elements.

This unrelenting boundary-making process makes the translation of media-artworks into manageable database objects rather problematic. First, the sheer number of components in their constituencies makes media-art artworks much more difficult to trace and to categorize into the database. If in the case of a painting like the *Demoiselles* the museum only needs to manage a handful of components, in the case of a media-artwork like *Untitled* the museum needs to classify and take care of hundreds of components. Second, these components are constantly changing. While the *Demoiselles D'Avignon* is defined by the same canvas in which it was originally painted on a century ago, the components defining *Untitled* two decades later are very different from those that defined it originally. As a matter of fact, the number of components in *Untitled*'s constituency more than doubled in only 20 years. Third, as a result of this unrelenting process of change, these artworks cannot be reduced into stable database objects. The evolving relationship between these artworks and their constituents means that boundaries have to be constantly redrawn and values re-assessed.

Media-artworks, as we see, behave as elusive objects of knowledge disrupting established categories and defying established procedures to create order at the

museum. However, their role is not simply disruptive. As unruly objects, media-artworks are also productive vectors of change. Indeed, as a result of the increasing impossibility of classifying and managing media-artworks, different museums, including MoMA, have started to create and test new classificatory systems specifically designed to tackle the complexity of media artworks and their constituencies. These databases offer alternative ways of creating order and assigning meaning and value that depart from traditional classificatory systems premised upon the existence of a single, discrete, and unchanging art "object." The creation of these classificatory systems signals a move in how museums organize knowledge, value, and meaning, and, importantly for my argument, it underlines the idea that classifications are ongoing and open-ended processes emerging from the relationship between those schemes and the material stuff they seek to organize.

Unwieldiness

The third feature of artworks that behave as unruly objects is that they tend to be notoriously cumbersome artifacts both in their movement within internal circuits as well as within the external circuits connecting museums with other institutions.

Internally, the portability of media-artworks is rather limited as a consequence of the complex processes of transportation and installation they typically require. Moving a work like *Untitled* involves assembling a constituency of several dozen components, which can easily go amiss or be damaged. Furthermore, in contrast to most oil-paintings, which can be placed virtually anywhere in the museum, media-artworks can only be located within very specific locations, as they often require substantial physical transformations in the galleries as well as the coordination of large teams and the assemblage of different forms of expertise. Installing a work like *Untitled* requires, at least, one curator, several preparators, an audio-visual team in charge of hardwiring the artwork, as well as media conservators overseeing the physical integrity of the components. Moreover, unlike oil paintings, which can be perennially on display, media-artworks often have very limited exhibition lives as they tend to break and malfunction. They normally demand an intense process of monitoring and care, which requires conservators and an audio-visual team to be permanently "on-call" to trouble-shoot them.

The inability of these artworks to remain on view for a long time together with their limited portability affects the kinds of meanings and narratives that can be construed through them. Moreover, the decision of how to place these artworks within the exhibition space cannot be exclusively based on the curator's aesthetic criteria, but have to rely on technical criteria, like the ability to place these works into a specific space and to keep them running throughout the life of the exhibition. As a matter of fact, it is often the case that physical constraints and technical criteria take precedence over curatorial criteria and narratives. This has direct effects on the balance of power within the museum as exhibition designers, conservators, and even audiovisual technicians can now have a say in the layout of the exhibition, and therefore intervene in the narrative structure of the museum, a sphere previously dominated by curators.

The unwieldy nature of media artworks is also evident in their circulation outside the museum. The complexity of their constituencies poses a significantly higher risk of

losing or damaging one of their numerous components. The movement of these artworks can be especially cumbersome and onerous, since they typically require custom-made crates and especially designed transport and art handling systems. This movement is further complicated by the extensive knowledge that is required for installing, running, and troubleshooting them. Installing these artworks involves detailed knowledge of how to operate software and hardware components, as well as of installation details like projection distances and adequate display ratio for images or sound levels. This makes standardization both essential but highly problematic as these artworks have to adapt to different exhibition spaces as they travel, which constantly triggers polemics about their authenticity. In addition, their fragility and complexity means that many museums are reluctant to loan these artworks. Indeed, many, like *Untitled*, have never been on loan, and it is unlikely that they will ever be. In this sense, while oil-paintings work as crucial lubricants in the global circulation of art, many media-artworks can be seen as elements that tend to restrict, or even inhibit, this circulation. Moreover, while docile objects, such as oil-paintings, provide the kind of material infrastructure that makes possible the kind of standardization of practices and procedures that leads to organizational isomorphism and institutional homogenization, unruly objects typically create the kind of exceptions that disrupt, or at least challenge, those processes of standardization and homogenization.

Unruly objects as vectors of change

The previous sections have illustrated how *Untitled* behaves as an ideal unruly object by failing to occupy a stable object-position, and by creating discontinuities and disruptions that provoke constant conflicts and renegotiations about boundaries as well as the reorganization of subject-positions. *Untitled* is far from being an isolated case. Over the last decades, the emergence of genres like media-art, installation, and performances, together with the rise of artworks made of unconventional materials—like latex, chocolate, sweat, feces, or milk—has made the type of unruliness represented by *Untitled* increasingly common. The variability, elusiveness, and unwieldiness of these artworks become problematic within an institution, like the museum, organized around stability, originality, and uniqueness. Yet, as Untitled also shows, these disruptions are not merely negative. Unruly objects play a generative role creating a new structuring principle around which new practices, relations, and boundaries are formed. As we have seen in the case of *Untitled*, unruly objects give way to new systems of classification, new practices and forms of judgment, and a new dynamic of power between curators and conservators (see Domínguez Rubio and Silva 2013). Moreover, they also force a redefinition of the museum's institutional role and mission. For example, the variability of these artworks challenges the idea of the museum as a neutral container of "art objects." When dealing with these artworks, museum are required to adopt an active role in demarcating the boundaries of what constitutes the artwork, the degree to which it can be changed and, more importantly, how that change can take place. This is precisely the problem confronting MoMA in the case of Nan June Paik: the only way of keeping it alive is by adopting the role of an active agent re-defining the boundaries and meaning of the work. This opens up a new area of conflict in the field of contemporary

art, as the museum takes on attributes and roles typically reserved to the artists and artist estates (see, for example, Rinehart and Ippolito 2014; Scholte and Wharton 2011). In sum, unruly objects can be seen as elements that create the kind of discontinuities that lead to the transformation of organizations and institutions and therefore as vectors of change in the process of cultural production.

Materials for cultural sociology

In this article, I have sought to describe how materials matter in the process of cultural production within the particular context of MoMA. Their importance is revealed at three different, but closely interrelated, analytical levels: the organizational, the institutional, and the heuristic.

At an organizational level, I have shown how artworks constitute an active structuring principle within the museum, rather than inert "stuff" organized and classified according to different external principles. Specifically, I have shown how artworks play an active role by distributing subject-positions and establishing boundaries and hierarchies between actors, by shaping how classifications, knowledge, information, and practices are standardized and communicated, and how meanings are patterned. Needless to say, I do not wish to claim that the transformations I have described at MoMA are taking place elsewhere following MoMA's pattern. Some of the changes I have described here—for example, the rise of conservators within the museum—may indeed not apply to other museums with different organizational structures. What I do claim, however, is that the distribution of subject and object-positions within a museum is always necessarily mediated by the kind of artworks it contains. Or put differently, my claim is that artworks organize museums as much as museums organize artworks. And that trying to account for how a museum works without taking into account what artworks do makes as much sense as trying to understand a football game without taking into account what the ball does.

The second level at which materials are important is the institutional. As I have shown, the fundamental problem the museum has to resolve is how to preserve the unpreservable by trying to keep artworks as meaningful and valuable objects over time. To achieve this, the museum works as an "objectification machine" that aims to transform ever-evolving and decaying artworks into exhibitable, classifiable, knownable "objects." Yet, as I have shown, the success of this operation ultimately depends on the artworks themselves and, specifically, on their different degrees of docility and unruliness. Traditional art forms, like oil paintings, have typically provided a material infrastructure that is amenable to the kind of stabilization and objectification that the museum requires to meet its preservation function. However, the proliferation of artworks that behave like unruly objects is making it increasingly difficult to produce the kind of stable objects upon which museums have traditionally relied to operate. The impossibility of stabilizing and preserving these artworks is opening up discussions about the need to rethink the institutional values and roles of contemporary art museums. This is evident in current discussions calling for the need to redefine the museum as temporary placeholders of art or as a space of experience rather than as institutions designed to preserve cultural objects *ad aeternam* (Klonk 2009). With this, however, I do not wish to claim that unruly objects are the only variable explaining the

institutional dynamics of the contemporary art museum. There are many variables that explain this, like the relationship of museums to the art market or to the state (Buskirk 2012). What I do claim is that these institutional dynamics cannot be fully understood without attending to the material properties of these artworks and their different roles as docile and unruly objects. Simply put, what I claim is that the material is a relevant variable in understanding institutional dynamics.

The third level in which materials are relevant is the heuristic one. The article has shown that our sociological understanding of cultural dynamics is bound to be incomplete unless we explore how different materials shape these dynamics, how they provide different degrees of durability to cultural meanings and forms, and how they define the ways in which these meanings and forms are handed over and transformed as they move across space and time. My argument, however, is not that we should supplement or complement existing understandings and explanations of cultural dynamics by adding a hitherto ignored "material variable." Adding materials, I argue, is not just like adding the missing piece of an incomplete puzzle. Adding materials requires rethinking the very nature of the puzzle. In other words, my argument is that the inclusion of materials demands a fundamental re-conceptualization of how we understand cultural dynamics and how we go about explaining them. Specifically, I contend, it demands abandoning that traditional view of culture as a semi-autonomous system of meanings, practices, and classifications operating outside, above, or beyond "the material." As the MoMA case illustrates, it does not make sense to think of meanings, practices, and classifications as elements of a pre-established cultural system that are then "imprinted" or "inscribed" onto material artifacts. What the MoMA case shows is how those meanings, practices, and classifications emerge and unfold as the contingent result of the interplay between the physical properties of artworks and the practices created to preserve and display them. What is needed, then, is to develop explanations that are able to capture this "material unfolding of culture" as a bottom-up process that emerges through diverse configurations of people, meanings, practices, *and materials*. With this, however, I am not suggesting that we should move to a "materialist" approach and place the material at the center of cultural processes and explanations. Placing materials at the center of our explanations *a priori* makes as little sense as following Durkheim's advice to discard them *a priori*. The specific role that materials occupy in our explanations is something that has to be determined empirically for each case. What I am advocating here, then, is the need to develop explanations that are capable of registering the diverse types of work that materials can perform in the constitution of different cultural dynamics and forms. To achieve this, however, it is not enough to develop dialectical explanations that account for how "culture" and "the material" constitute each other or causal explanations that seek to discern the extent to which the "the material" can determine "culture." If the MoMA case teaches us anything, it is the futility of establishing any empirical or heuristic distinction between "the cultural" and "the material," and the need to develop explanations that are able to account for the *gradual*, *contingent*, *and simultaneous* unfolding of material artifacts, meanings, social relations, and organizational and institutional structures. It is only once we produce this type of explanations, I contend, that we will be able to truly account for how cultural forms and meanings grow into being and are reproduced over time.

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Fernando Domínguez Rubio is an Assistant Professor of Communication at the University of California, San Diego. He received his PhD in Sociology from the University of Cambridge in 2008. He was also a Marie Curie Post-Doctoral Fellow at New York University and the Centre for Research on Socio-Cultural Change at the Open University. His research focuses on cultural sociology, and more specifically on the study of the different practices, materials, and infrastructures through which different forms of subjectivity and objectivity are produced. He has written on the relationship between enhancement technologies and political subjectivity, contemporary art, and on the politics of urban infrastructures. His work has appeared in such journals as *Cultural Sociology*, *International Journal of Research and Planning*, *City and Society* and the *Journal of Material Culture*. He is the co-editor of *The Politics of Knowledge*(Routledge 2012). He is currently working on a book manuscript based on his recent ethnography of the Museum of Modern Art (MoMA).