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**IP Things as Boundary Objects:
The Case of the Copyright Work**

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Article

IP Things as Boundary Objects: The Case of Copyright Work

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Abstract: The goal of this article is to initiate the exploration of the meanings and functions of the things of intellectual property: the work of authorship (or copyright work) in copyright, the invention in patent, and the mark and the sign in trademark. The article focuses firstly on the example of copyright work. Relevant challenges are both technological and conceptual, because these things blend the material and the immaterial. Works are neither as clearly defined nor as clearly limited as copyright law often suggests they are. To explain and justify that proposition, the article borrows from information science literature exploring boundary objects, which are stable physical and intangible things that align distinct but overlapping communities of practice in flexible ways, via interpretive openness. The article shows that the meanings of the work in copyright law can be unified conceptually in the sense that the work operates as a boundary object across a number of different legal and cultural divides. This view of the work clarifies the distinct status of relevant communities and practices in copyright but also bridges them in copyright's construction and governance of culture. None of the boundaries represented in these boundary objects is fixed or impermeable. Their very dynamic and sometimes porous character is precisely the governance role illuminated here.

Keywords: copyright; works; works of authorship; boundaries; boundary objects; things; materiality; immateriality; communities; social groups

1. Introduction

Legal systems resolve cultural conflicts using forms and processes that necessarily abstract and simplify the messiness of life outside the courtroom and legislative chamber (Madison 2010b, p. 351). Culture, in the form of narratives, rituals, conventions, and material and immaterial forms, does not simply present itself in or to the law. Culture, such as art and literature, must be represented via other versions of culture, such as law. Legal culture is itself culture. It, too, must be represented. Within cultural systems, including law and language and markets and social groups, which cultural attributes are distinct and separate? Which are common and shared?

This article concerns one aspect of those broad questions, representations and roles of “things” in general and “thing” in the law in particular. The importance of things should not be doubted. Things are fundamental to our collective sense of sociality and culture. As technology advances, and in particular as digital technology advances, that proposition may seem anachronistic. Yet things matter as much as ever, in law and elsewhere. The goal is to explore the constant significance of things amid an ever-evolving technological landscape. The article illustrates the question of legal things in context by examining a key problem in copyright law: the central but uncertain conceptual and doctrinal place of the copyright work, known also as the work of authorship.

The problem may be set out in simple terms. What are things, and what do things do? Conventionally and colloquially, thing-ness concerns boundaries and discreteness. The existence of a thing, the identity of a thing, and the properties of a thing appear primarily to implicate the thing's

outer boundaries and limits. One might say that a thing, or the thing, is defined by discreteness, which is demonstrated by identifying the attributes of a box, or by the identity of form. Things may be material (a tangible thing is often referred to as an artifact) or immaterial (an idea may be characterized as a conceptual thing).

Things also have an identity of substance. Conventionally and colloquially, this feature is often referred to as about-ness. About-ness is about the contents of the thing, such as its semantic character, or its meaning. In about-ness terms, one might say that things may be objects (law often regulates the design or uses of things, for example), and also subjects (law often determines the existence of things, such as patentable inventions, that produce legal effects on people).

Thing-ness and about-ness may be less distinct than they appear. What may appear to be edges of things (that is, the boxes) have semantic dimensions that are as complex as the contents of things (that is, their substance). Emphasizing form versus substance, or emphasizing boundaries and limits on the one hand and meaning on the other hand, may be unhelpful and unproductive in understanding the uses and functions of things in legal culture and culture generally. This article illustrates that point and offers an alternative framework for thing-ness, treating about-ness as part of thing-ness. The article does so in a focused case, with reference to copyright, and in particular, with reference to the thing that sits at the heart of copyright: the copyright work.

Examining the work as copyright's central thing, the article's basic but lesser claim is that copyright validity, enforcement, remedies, and transactions require a baseline level of thing-ness and about-ness in its objects, both to make their legal arguments sensible and to make the relationship between legal practice and other cultural practice sensible. Neither relationship, nor the precise attributes of the work, can or should be specified exactly. The search for definitional boundaries is chimeric. The article proposes a framework borrowed from the domain of information science, the idea of boundary objects, as a means to understand both why this is so. The point is that both copyright and other culture consist largely of contests and coordination among multiple social worlds, expressed and articulated in pragmatic settings through interpretable abstract things called copyright works.

The article's larger claim is that this relationship among copyright works and creative and expressive culture is a mode of governance, as a supercategory that includes positive law concerning knowledge and information resources, which (in turn) includes matters such as intellectual property (IP) law in all of its forms, and property law, commercial law, competition law, privacy law, and the law of freedom of expression. Governance entails more than positive law, of course. Technological resources and both formal and informal social institutions are engaged in governance processes. Works are things, as parts of those processes. In many respects, things embody governance. The argument developed below shows that things are aligned with and are given meaning by patterned social identities and social practices. Things also embody those identities and practices, including law itself. Things confirm, enable, reflect, and deflect overlaps between and among social worlds. That summary, explained in detail in the sections below, is the respect in which things are governance. Understanding the dynamics of things is a means of understanding the dynamics of governance.

In all of these respects, to borrow a time-worn phrase from the world of computer programming, the absence of consistent, clear boundaries for the copyright work is a feature of that system of law, rather than a bug. At the larger scales of law and governance, the same may often be said of things in general. That information technology metaphor is purposeful. Some of the examples and discussion below highlight the fact that modern technologies make governance concerns and the character of things more salient rather than less so. Works, as legal and cultural things, are neither simply given by nature, nor are they simply constructed in novel ways (or effaced) by technology.

In sum, legal things such as copyright works are inescapable parts of law and governance, but they are pragmatic, not ontological. We create them and treat them as essential things because of the work that they do (the pun there being very much intended). Given the significance of the work in copyright, the article offers some potentially far-reaching implications for the design, understanding,

and application of governance institutions for knowledge and information resources of many sorts, as well as some specific implications for copyright law and legal systems in general.

The article is organized as follows. Section 2 lays out in brief some recent copyright cases in which the presence or absence of a copyrighted work, and/or the classification or characterization of a copyright work, played a central role. Section 3 discusses problems associated with the concept and application of the copyright work in the context of copyright and governance generally, putting the examples of Section 2 in broader context. Section 4 shifts the discussion up a register, introducing and discussing the problems associated with understanding things generally as governance. Section 5 returns to copyright, proposing to resolve the challenges of the copyright work as governance by introducing and applying the 'boundary object' heuristic in regard to another series of illustrative copyright cases. Section 6 concludes.

2. Mapping Works in Copyright's Cultural Landscape

The two most notable things in intellectual property [IP] law are inventions, which are central to patent law, and works, which are central to copyright. Despite the centrality of things, other concepts often get more doctrinal attention in both bodies of law. In patent law, the ideas of "invention" and "the invention" (related but distinct concepts) are largely reducible to novelty, nonobviousness (in US law), an "inventive" step (in other patent systems), and utility. "Invention" often has little independent meaning.¹ In copyright law, the concept of the work builds principally on the idea of the author, to whom a work owes necessary originality or expression, and in the American system, it also builds on the concept of fixation or tangibility.

Yet beneath the doctrinal superstructure, the conceptual foundations matter. Just as the author is copyright's person, the work is copyright's thing. As patent law invokes the idea of the invention and often gives that concept little independent significance, copyright law invokes the idea of the work, represented in US law as the "original work of authorship"² and elsewhere as the "copyright work" (Sherman 2011), but copyright rarely gives the work itself much explicit weight. Or, where the burden of the work is acknowledged, its analytic dimensions are unclear or inconsistent or both. The omission is noteworthy not only in copyright practice but also in copyright literature. An enormous amount of scholars' ink and lawyers' and judges' time have been spent decoding originality and expression. Comparably little effort has been devoted to the work. It is, therefore, my principal subject and case study with respect to the legal meaning and functions of things in general and IP things in particular.

It is coincidence, perhaps, that my interest in the subject overlaps with a number of opinions in recent copyright cases that focus wholly or partly on issues of the work. Is the existence of a work as such a requirement of copyright, in US copyright law or elsewhere? Is this thing a work (as opposed to its being not a work of any sort, or as opposed its being one form or type of work rather than any other)? Which sort of work is this thing? The clutch of questions is not wholly divorced from questions of authorship, originality, and fixation of the work, but it does form a distinct body of material that introduces the theme of the article.

The summaries of recent cases that follow do not amount to a comprehensive review of relevant cases. Nor does the article return to each case to diagnose and explain how its result or reasoning might be sharpened or aligned with a better definition of the copyright work. Instead, the cases are meant to illustrate, and the number of cases is perhaps longer than optimal in order to show the depth and breadth of the illustration. The diversity of points in copyright where the character and identity of the work matters, rather than the pattern of outcomes or judgments, is the subject matter of the analysis. The work is not a narrow or specific issue but one that pervades this body of law.

¹ The legislative history of the 1952 Patent Act in the US suggests that the drafters intended to eliminate the concept of "the invention" from the analytic framework of the law, even if they did not eliminate the word See (Rich 2004–2005).

² 17 U.S.C. § 102(a) (2016).

In *Garcia v. Google, Inc.*,³ the Ninth Circuit Court of Appeals held that a film actor had no copyright interest in her performance that could be distinguished from the copyright in the film as a whole. In other words, she had not proved the existence of a work. On similar facts, the Second Circuit Court of Appeals came to the same result in *16 Casa Duce, LLC v. Merkin*.⁴

In *Star Athletica, L.L.C. v. Varsity Brands, Inc.*,⁵ the US Supreme Court examined the design of a cheerleader uniform and concluded that a “pictorial, graphic, or sculptural” [PGS] work could be discerned despite the fact that the design of the uniform, a dress, was tailored to suit the functional needs of the wearer, a cheerleader. The Court focused on the fact that the graphical design of the dress could be imagined separately from the dress itself, not on whether the design as such was original. It affirmed a result in favor of the original designer and against a rival that distributed less expensive copies.

In *American Broadcasting Companies, Inc. v. Aereo, Inc.*,⁶ the Supreme Court addressed the work not in the context of protectability of a copyrighted thing but in terms of infringement of the public performance right under US law. It held that via a system of tiny antennas, which captured signals carrying copyrighted broadcast television programs, the defendant publicly performed copyrighted works even though each antenna captured and transmitted a separate copy of the work to each of the defendant’s subscribers. The result was to protect incumbent television broadcasters from internet-based competitors.

In *Klinger v. Conan Doyle Estate, Ltd.*,⁷ the Seventh Circuit Court of Appeals examined the classic literary character Sherlock Holmes and the effort by the plaintiff, administrator of the rights of the estate of the author, Conan Doyle, to claim copyright status for the character in the US despite the older Holmes stories having entered the public domain. The court ruled that Holmes as a character was an integrated work rather than a set of attributes that could be divided into older attributes now in the public domain and newer attributes associated with the Holmes character appearing in the later stories, which are still in copyright. The public domain status of the earlier stories prevented the plaintiff from claiming copyright in the character in the later stories. As a result, Klinger was permitted to produce sequels to the public domain Sherlock Holmes stories.

In *DC Comics v. Towle*,⁸ the Ninth Circuit Court of Appeals held that the Batmobile, an imaginatively designed automobile associated with a long-running comic and associated television programs and films, could be protected in copyright as a literary work and specifically as a character, because the Batmobile possessed consistent attributes of a single personality in its multiple versions. The court rejected the idea that the Batmobile was the subject of limited or no protection on account of its being a three-dimensional object with functional attributes. The owner of the copyright in the *Batman* comic prevailed over a commercial producer of replicas of the Batmobile.

In *Teller v. Dogge*,⁹ a federal district court held that a magic trick created and performed by Teller, half of the well-known duo of illusionists known as Penn and Teller, could be protected as a copyrighted dramatic work or pantomime, but not as a magic trick in itself. Teller prevailed over a rival magician.

In *Capitol Records, LLC v. ReDigi, Inc.*,¹⁰ a federal district court held that a defendant who offered a digital music resale service infringed copyrights in musical works where the defendant’s service enabled the owner of a digital music file to offer to “sell” that copy by transferring it from the owner’s device to the defendant’s service. Notwithstanding the deletion of the copy on the owner’s device, the

³ 786 F.3d 733 (9th Cir. 2015) (en banc).

⁴ 791 F.3d 247 (2d Cir. 2015).

⁵ 137 S. Ct. 1002 (2017).

⁶ 134 S. Ct. 2498 (2014).

⁷ 755 F.3d 496 (7th Cir. 2014).

⁸ 802 F.3d 1012 (9th Cir. 2015).

⁹ 8 F. Supp. 3d 1228 (D. Nev. 2014).

¹⁰ 934 F. Supp. 2d 640 (S.D.N.Y. 2013). As of this writing, an appeal is pending.

court determined that the service involved infringing reproductions of the plaintiff's works. In effect, consumers who purchased music whose copyrights were owned by the plaintiff were required to use services authorized by the plaintiff in order to resell that music, or not resell it at all.

Non-US courts have confronted related issues.

In *Art & Allposters International BV v Stichting Pictoright*,¹¹ the European Court of Justice dealt with the question of exhaustion of rights with respect to the European Information Society (InfoSoc) Directive. The defendant's business involved chemically transferring the ink from poster reproductions of artworks onto new canvases. The court ruled that the rights of the plaintiff in the poster reproductions were not exhausted, because the work in each instance was transferred physically onto a new medium, which was changed as a result. The work was the same, but the physical form was different. The plaintiff's exclusive control over production and distribution of its posters was preserved.

In *Football Association Premier League Ltd. v QC Leisure and Karen Murphy v MPS Ltd.*,¹² the European Court of Justice decided that sporting events (in this case, soccer matches) could not be classified as copyright works within the meaning of the European Copyright Directive, on account of the fact (according to the court) that the events are determined entirely according to the rules of the game and leave no room for creative freedom within the meaning of copyright. The implication of the ruling is to limit the scope of rights in television broadcasts of the events, particularly with respect to limitations on territorial exclusivity of the broadcasts authorized by the Premier League, which produced them. The *Football Association* ruling is one of several in the European Court of Justice pushing toward articulating a requirement and vision of the work as specifying the scope of the author's legal rights. The work is defined in terms of authorship, specifically, the author's own intellectual creation (in the sense of resulting from an author's free expression of his or her creative abilities and bearing his or her personal mark).¹³

In *Lucasfilm Limited v. Ainsworth*,¹⁴ the Supreme Court of the United Kingdom ruled that the helmets associated with the "Stormtrooper" costume design prepared in connection with and used in the original 1977 production of the film *Star Wars* were film "props" not subject to protection under UK copyright law. The law might have classified them as sculpture, a statutory species of "artistic work." The defendants, who were in fact the designers of the original Stormtrooper costumes, were allowed to continue to sell replicas of the costumes in the UK.

I also mention a trio of slightly older US cases, because they implicate an aspect of copyright regarding the work that is not mentioned earlier: the adaptation right. Each of these cases implicates a question with both doctrinal significance and conceptual concern, namely, the point at which a new creative thing acquires legal independence from its source. *Ets-Hokin v. Skyy Spirits, Inc.*¹⁵ involved a photographer's claim of ownership with respect to an advertising photograph of a vodka bottle. The trial court had analyzed the claim of copyrightability as a question of copyright in a derivative work. On appeal, the Ninth Circuit Court of Appeals concluded that this was error, because copyright in a derivative work required that the source work be copyrightable as well, and in this case the bottle was not a work. The court remanded the case for decision on what the photograph was copyrightable in any other respect. At stake was the power of the owner of the bottle to obtain a marketing photo from a new photographer that was too similar to that produced by the original photographer. *Lewis*

¹¹ [2015] EUECJ Case C-419/13 (22 January 2015).

¹² [2011] EUECJ Cases C-403/08 and C-429/08 (joined cases) (4 October 2011).

¹³ See *Infopaq International A/S v Danske Dagblades Forening* [2009] EUECJ Case C-5/08 (16 July 2009).

¹⁴ [2011] UKSC 39, [2012] 1 AC 208 (27 July 2011) (UKSC). In an earlier, related case, Lucasfilm was awarded \$20 million in a default judgment against Shepperton Studios and Ainsworth, defendants in the later UK lawsuit and producers of both the original and replica Stormtrooper costumes. *Lucasfilm Ltd. v. Shepperton Design Studios Ltd.*, 2006 WL 6672241 (C.D. Cal. 26 September 2006). Lucasfilm's Complaint characterized the replicas as infringements of the Stormtrooper characters, protected as part of the copyrighted motion picture.

¹⁵ 225 F.3d 1068 (9th Cir. 2000).

*Galoob Toys, Inc. v. Nintendo of Am., Inc.*¹⁶ and *Micro Star v. Formgen, Inc.*¹⁷ each involved copyright in adaptations of videogames, with both cases being decided by the Ninth Circuit. The court in *Galoob* ruled that sale of a device that permitted game players to experience copyrighted games in modified form did not cause infringement of the copyrighted games, because the games as modified were new works that did not appear in fixed form. Consumers were free to use the defendant's devices as they wished. The court in *Micro Star*, on analogous facts, ruled for the plaintiff. Distinguishing *Galoob*, the court decided that the modified videogames in question were in effect literary sequels of the originals, and therefore infringing adaptations of the original works.

The cases point to a central organizing theme behind the idea of the work, which I explore in detail in the next Section. Works in copyright are modes of governance of and by social groups. I noted earlier that thing-ness is often associated with discreteness and limits. I added the claim that thing-ness (form) and about-ness (substance) may be difficult to disentangle because both perspectives require interpretation. Understanding legal things, and understanding works as types of legal things, requires understanding social and cultural context. That context implicates social groups, and their identity, definition, and practices. In the Sections to come, the article builds on that point. The work in general and a work in a particular case both represent and are defined by boundaries and boundedness that is simultaneously stable and fluid. Those features highlight the key social roles that works, as things, play in governance and in culture. This article argues that if the concept of the work has value both legally and culturally, their social character is where that value (and values) gain traction.

3. Governing Works

One may reasonably ask, "why should one be concerned with the work?" This Section addresses that question by laying a foundation for putting the topic of the copyright work in the broader context of governance.

In framing the work as part of governance, this article picks up where an earlier article left off. In *The End of the Work as We Know It* (Madison 2012b), I traced the evolution and emergence of the work as a copyright concept and copyright thing, one that both provides copyright law with a pragmatic entity at its core yet also deprives copyright law of the independence, consistency, and stability that copyright lawyers, copyright courts, and the law itself appear to expect. It is not an overstatement to argue that if one pulls too hard on the thread of the concept of the work, the fabric of copyright law as a whole might unravel. That delicacy makes current copyright inordinately fragile. The conclusion of that article hinted at what might be made of the work going forward. Here, I return to that topic.

3.1. What Is a Work?

It is generally agreed that the work is not a real thing, to the extent that philosophers might decide such an ontological question. Rather, the work is a pragmatic or conventional thing, one that exists by reason of the fact that relevant social actors agree that it does and that it should, both as a conceptual matter and in a particular instance (Drahos 1996).¹⁸ Copyright law in general concerns works, and an author in a particular instance is associated with a specific work, for functional reasons.

Turning the copyright work over and around, conceptually, reveals its several dimensions. One dimension is the relationship between the world of copyright law and the worlds of artistic and cultural expression. The work in copyright is a close cousin of the work of art or the artwork, in artistic and cultural practice. The terminological overlap is not accidental, even if it is now mostly historical. In both law and in art, "the work," linguistically, implicates simultaneously the effort and

¹⁶ 964 F.2d 965 (9th Cir.1992).

¹⁷ 154 F.3d 1107 (9th Cir. 1998).

¹⁸ I thank Alexander Peukert for helpful conversations regarding the pragmatic rather than "real" character of IP objects. For additional discussion of this point, see (Drahos 1996, p. 153).

time invested in production and also the output, the item produced. The conceptual implications of that shared linguistic heritage diverge. Today, there is no necessary or automatic alignment of a given artwork with a copyright work. An artwork may contain multiple copyright works. A copyright work may embrace multiple artworks. Artworks and copyright works are each things in themselves, objects that are the subjects of legal rights, practice, and analysis, and they are also each things that circulate in commerce, through licensing, lending, and other transactions. Artworks and copyright works may circulate jointly (for example, this is often true with respect to computer programs), or separately (for example, ownership, possession, and commercial exploitation of a copyrighted painting may be divided and circulate independently of one another).

The copyright work is itself (simultaneously) a multi-layered representation (Sherman and Bently 1999). The concept of the copyright work typically signifies and represents the author's creative or intellectual contribution to a cultural object embodied in tangible form, such as a traditional book.¹⁹ As I argued earlier, this construction blends thing-ness and about-ness aspects of the work. The work often operates in legal terms as an independent abstraction, one that is divorced from the author's role.²⁰

The word "work," in its copyright usage, signifies that role. Usage of "the work" as a phrase in copyright at times indicates the structural or functional role of the concept as part of the law as a whole. At times the usage indicates the role of the work in the instance of a particular transaction or litigation or regulatory framework. At times the usage is inattentive, perhaps deliberately so, to conceptual distinctions between the materiality of the work (the existence of creative expression in some fixed or tangible form) and its immateriality as a matter of legal mandate. Licensing of computer programs is notorious for blurring this distinction (Madison 2003), but that example is far from unique. In practice, it is rare to see nuances and details of the different meanings and purposes of "the work" teased out neatly.

Here, where appropriate I make the effort to specify which dimension(s) of the work I am referring to, but often I am purposefully inattentive to the distinctions. The reason is this. As the next Section makes clear, my general interest lies in works as species of things, and I take a very broad and inclusive view of what and how things matter in practice. Pragmatics and commonalities are more important to me, in this article, than fine distinctions.

Why and how does intellectual property law concern itself with abstractions, or intangible things, meaning inventions in patent law, works in copyright law, marks or signs in trademark law, and so on, and should it do so? Pragmatic scholars characterize abstract things of this sort as mediating relations between people. Drahos treats them as "convenient fictions" (Drahos 1996, p. 153), a phrase that bears an aura of distaste. The question of the work seems to point to something overly technical, or formalist. It appears to distract lawyers, courts, legislators, and policymakers from more important matters: at the grand scale, power and justice (or to some, efficiency and social welfare); or at middle scales, the hard work of balancing the interests of first-generation innovators, creators, and authors with those of second-generation practitioners, consumers, and readers, and with those of intermediaries of all kinds. Managing the flow of knowledge and innovation through society is the difficult challenge. Identifying and describing "the work" in copyright seems to be necessary, unavoidable formalism and bureaucracy.

¹⁹ That embodiment is conventional, though not required by law as a condition of copyright, other than in the US.

²⁰ The separation of the work from the author's contribution has proved to be useful but also controversial and problematic. Useful in the sense that it facilitated the emergence of copyright as a legal device to support production and distribution of cultural works in large-scale markets. See (Madison 2012b). Controversial and problematic in the senses that it tends to efface the authorial meanings and impacts (and therefore legal interests) in cultural works produced by fans and other "outsider" creators. See (Tushnet 2013a). Research by Catherine Fisk and Jessica Silbey (independent of each other) has documented the sense in which creators value their production by labor, expertise, and time invested rather than via works as such, even if "the work" and its owner is the thing validated by copyright law (Fisk 2014; Silbey 2014). Modern artists in a line that runs from Marcel Duchamp through Andy Warhol to Richard Prince have built careers out of producing artworks that played with the line between artisanal artistic "works" and mass-produced or industrially-created "work."

My view is that the bureaucratic perspective on the copyright work is mistaken. Copyright's formalistic attachment to the work is partly historical, to be sure, and it is partly structural in formalist terms. The differences between "works" (copyright) and "inventions" (patent) and "marks" (trademark) and "designs" (design rights), at their best, are hooks and anchors for elaborate independent legal structures. Those hooks and anchors permit each legal domain to sort itself out, and in total they give the law a reasonable amount of both internal and external coherence. A recent article by McKenna and Sprigman takes this approach, noting that multiple doctrines in intellectual property law concern "functional" things and "functional" aspects of creative or imaginative things, but also that there is no standard, consistent, or unified system for processing "functionality" across all of IP law (McKenna and Sprigman 2017). They call for clarity, so that inventive and creative activity of different sorts can be channeled formally into appropriate domains.

The question of the relevance of the copyright is conceptual as well as historical and structural, and my interest in the work and explanation of its relevance are primarily conceptual as well. IP things such as works and inventions are keys to understanding how IP law is part of larger systems of cultural production, schemes of innovation and creation, and structures for production, circulation, consumption, and preservation of information and knowledge. Copyright law and patent law are species of a broader terrain of knowledge law, in which I map knowledge broadly in cultural and social terms as well as scientific and philosophical ones (Madison 2009, 2010a, 2011a, 2011c). IP things are critical to the social and cultural function of IP law just as things more broadly are critical to the social and culture dimensions of law and governance in general. "What is an invention?" or "what is a work?" are far from merely technical, formal, or metaphysical. They are, instead, questions that go to the heart of the several roles that IP things play in both law and culture generally.

3.2. *Why Investigate the Work Now?*

That statement opens the door to explaining why the concept of the work matters *now*. The idea of the work has been fundamental to most of copyright law of the last century and a half, and during that time it has served both law and society tolerably well. Neither thing-ness nor about-ness caused unmanageable problems for the law. The work as a copyright concept and as a device in specific copyright disputes and transactions had blurry but acceptably precise boundaries. This was often the case because the intangible or immaterial copyright work was usually tethered, practically speaking, to a material object. In US law, that tethering is required; copyright only "subsists" in works embodied (that is, in the language of the statute, "fixed") in tangible forms.²¹ But the US fixation requirement is a doctrinal nuance of one national system. Copyright's conceptual framework, identifying immaterial content amid material form and then assigning copyright interests only to the former, has been essentially constant and universal, in one way another, since the emergence of modern copyright in England in the 1700s.

3.3. *Technology Matters*

A first justification for renewed examination of the work is continuing massive technological shifts. The emergence of modern digital technology in the 1980s challenged the concept of the work and its copyright cousin, the copy, and revealed the limitations of both. Or, rather, modern digital technology revealed that those two concepts served essentially no function in limiting the scope of copyright in digital computing contexts. The disappearance of practical limits occurred partly because of the endless reconfigurability of copyrightable computer code and partly because reproducing, distributing, and performing copies of things is simply how most computers operate, for all practical purposes. The US Congress implicitly wrote abandonment of the limiting elements of the work and the copy into copyright law when it accepted the premise that computer programs could be protected by copyright

²¹ See 17 U.S.C. § 102(a) (2016) (copyright subsists in original works of authorship fixed in a tangible medium of expression).

as literary works, despite their obviously functional attributes (Samuelson 1984). US courts later accepted the proposition that functional copies of computer programs produced during the ordinary operation of a computer could constitute infringing reproductions of those works if the copying was not specifically authorized by the copyright owner²². In effect, and to reduce a complex area to a simple statement, everything digital is covered by copyright, whether the relevant actions amount to producing, using, sharing, or storing code. Identifying a distinguishable “work” in those contexts may appear to be entirely arbitrary, and it may appear to be arbitrary even independent of how digital technology is blended with network technology.

In the analog era, fixation of copyright works in visible and possessable forms (in economists’ terms, fixation in obviously rival copies) lent credence to the proposition that copyright works had tolerably well-defined limits. How does one define the limits of a digital thing, that is, of a form of expression that by definition is expressed in a string of 1’s and 0’s? The beginning and end of the string associated with a particular digital thing may be arbitrary, because the content of the string depends on numerous functional considerations. Moreover, what is a digital work, or a digital thing, in a technical context that requires that both requires that material be copied in order for it to be distributed or performed and also that permits digital material to be cut up and repurposed digitally, cheaply, and quickly, in many different ways? Definitions based on outer boundaries or outer limits are apt to be illusory, because it is elementary for an author, owner, or court to declare after the fact that a boundary or limit existed even where none was apparently previously. Long ago, I characterized this aspect of computing technology as semantically “continuous,” in contrast to the “discontinuous” semantics of analog copies (Madison 2000, pp. 125, 138–39).

Technological change renders the question of the copyright work timely, but not new. If the boundaries of digital things are both technically and conceptually unclear, then comparable weaknesses have lurked below the surface of works rendered in analog forms. In other words, digital technology exposes an older problem not grounded in the development of digital technology. A copyright work today is assumed by law to be an intangible thing, which is medium-independent. I call that phenomenon the de-materialization of the work, which has its roots in the emergence of modern copyright law more than a century ago. The concept of the de-materialized work may not have caused too many problems for copyright law during most of the 20th century, when analog production and reproduction was the norm. But reliance on analog technology obscured a question that has been lurking within copyright since the beginning of the 20th century: What are the boundaries of a pure intangible?

A second, related justification for revisiting the work is precisely the astonishing size and speed of modern digital storage and computer networks. Scale itself makes reconceptualizing the work a necessity rather than a luxury. Two cases illustrate. In *Lenz v. Universal Music Corp.*,²³ the Ninth Circuit limited the power of copyright owners to rely on algorithms in policing intermediaries like YouTube for distributing infringing content. That is, in what respects are network intermediaries and platforms liable for the lawful character of material (copyright works, possibly) that appear on or via their systems? In *Authors Guild v. Google, Inc.*,²⁴ the Second Circuit Court of Appeals ruled that Google’s massive “Google Books” book copying and snippet-production project was exempt from copyright liability under the US fair use defense. Turning books into searchable data (that is, manipulating, repurposing, and reproducing copyright works, many of which contain additional copyright works) was characterized by the court as “transformative” within the meaning of governing precedent.

In both cases, the legal terms of the dispute were exceptionally poorly fit to the technological challenges posed by the practice at issue. Such mismatches among law and technology are potentially

²² *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993).

²³ 815 F.3d 1145 (9th Cir. 2016).

²⁴ 804 F.3d 202 (2d Cir. 2015).

disruptive conceptually as well as doctrinally and economically. At the dawn of the lawsuit that resulted in the *Authors Guild* ruling, I wrote:

[W]e'll need to rethink not only the premises of copyright law, but we'll also need to rethink some of our arguments about where culture comes from, where it goes, and what we do with it. This is the sense in which Google Print [Google Books, as originally christened] may be killing the book. And if the book dies, copyright as we know it ultimately dies too.

(Madison 2005b)

That statement may have been too apocalyptic and premature, but in a sense it correctly aimed the interrogatory arrow. Can re-conceiving the work restore copyright's role in governance, that is, in the production and uses of rapidly evolving technology and culture?

3.4. Pre-Technological Concerns

A third justification for analyzing the work today is the continuing drumbeat of questions about authorship and originality that were raised first in salient form during the domestication of computing in the 1980s. Scholars of that era hypothesized that if the work was being effaced in digital 1s and 0s, perhaps copyright could be organized around copyright's other grand abstraction, authorship (e.g., Goldstein 1994). That hypothesis was critiqued at length in scholarship that linked instabilities in the idea of the work to instabilities in the idea of authorship. That scholarship borrowed from mid- and late 20th century literary criticism, which revealed "authorship" to be often less determinate and more rhetorically and politically fraught than it appeared to be. Historians extended that indeterminacy to indeterminacy in the literary work (e.g., Rose 1993). Legal scholars attempted to build on the claim of indeterminacy with the argument that destabilizing authorship likewise destabilized the entire edifice of copyright, including the work, as the author's legal creation (e.g., Jaszi 1991).

While never wholly convincing, the argument that copyright should be organized primarily around the author and authorship has never disappeared. Despite an abundance of investment in technologies of cultural and expressive progress, copyright law and scholarship has not escaped the gravitational pull of the author. Contemporary disagreements over the purposes of copyright still sound in a centuries-old epistemological debate (Hesse 2002, pp. 26–45), divided between a focus on the author as the source of knowledge (a neo-Lockean or neo-Kantian perspective) (e.g., Hesse 2002; Merges 2007) and knowledge as an abundant and valuable good in itself (e.g., Lemley 2015). That debate between the primacy of authorship and the primacy of knowledge is encapsulated in the phrase "orphan work," a neologism that describes a creative product still in copyright but lacking an identifiable copyright claimant. The contemporary policy debate about orphan works is utilitarian, focused on knowledge itself. Do the social benefits of enabling access to orphan works outweigh the costs of doing so in the absence of clearance by (absent) rights holders? The labelling of the debate, with the metaphor "orphan" for these works, is Lockean or Kantian, focusing on authors (Taylor and Madison 2006, pp. 161–62).

Whether or not the critics of authorship were right, technology has exposed the wisdom of their basic insight. For copyright to thrive in the modern era (again, for it to play a meaningful role in governing technology and culture), we need to continue efforts to re-conceptualize both authors and works. Authorship has had plenty of attention over the last several decades. The work has drawn much less notice. If one assumes, as I do, that the dominant purposes of intellectual property law and policy is consequentialist, in the sense that the point of the law is to enable and support the production, circulation, and preservation of new knowledge, then that's a startling omission.

3.5. Payoffs

What does the new attention to the work bring us? The related, formal questions of the work's existence, identity, and classification have significant practical implications. Does the law require the existence of a work? What is the work? Is *this* a work? What kind of work is it? The existence of a

work determines the existence and scope of a copyright owner's initial rights.²⁵ In an infringement suit, identity between the plaintiff's work and the work of the accused infringer is fundamental to determining liability both for accused direct infringers and for accused indirect infringers, such as publishers and other.²⁶ Contrasts between the plaintiff's work and the defendant's work are fundamental to determining the scope of possible fair use or fair dealing defenses.²⁷ Given an initial work, does that work comprise subsidiary works (as a book might comprise separate articles, each of which might be a work, or a book, film, or play might comprise multiple characters, each of which might be a work)? When does an initial work become a new, derivative work or copyrightable adaptation, so that two works exist where before, there was one? US copyright law awards statutory damages on the basis of the number of works infringed,²⁸ giving copyright owners a substantial incentive to multiply the number of works they identify in their creations.

As elements of legal doctrine, in practice these multiple uses of the work are at times contradictory. Not only does the work lack the stable, autonomous, abstract existence that copyright law sometimes supposes, but the doctrinal pragmatics of the work are uncomfortably messy.

Messiness is the order of the day in copyright's world (or worlds), and I aim to make some sense of the messiness rather than find or impose some order. Readers looking for definitive doctrinal answers will be disappointed. Exploring the foundational conceptual questions linked to the work is the real aim of this article. The work is ubiquitous in copyright, yet it is defined nowhere. Differences between common law and civil law copyright traditions have relatively little bearing on the discussion. Copyright in common law systems treats the work primarily as an instrument of society's interest in producing and distributing creative things. British copyright law beginning in 1911 applied to "every original literary, dramatic, musical, and artistic work."²⁹ In 1988, British law was updated subtly; copyright now subsists in "original literary, dramatic, musical or artistic works" so long as other requirements are met, notably the identity of the author and the country of first publication.³⁰ Civil law copyright treats the work primarily as recognition of the rights inherent in acts of authorship. French copyright law governs the author's *œuvre de l'esprit*, "all works of the mind."³¹

International law is little help. Copyright in national systems outside the US typically does not include a fixation requirement as a condition of identifying copyright subject matter, but the concept of the "work" appears at least by implication in the Berne Convention, through which national copyright systems achieve a certain degree of harmonization. Signed initially in 1886, Berne specifies the subject matter of the Berne Union as "*la protection des droits des auteurs sur leurs oeuvres littéraires et artistiques*," or "the protection of the rights of authors in their literary and artistic works."³² The term "work" itself is only "defined" officially by the list of categories of works in Article 2 of the Berne Convention. A WIPO Committee of Experts concluded that this expression was synonymous with "intellectual creation," and that such creation should contain "an original structure of ideas or impressions." The same committee also noted that originality "was an integral part of the definition of the concept of 'work'".

²⁵ See 17 U.S.C. § 102(a) (2016) (providing the categories of works of authorship).

²⁶ See 17 U.S.C. § 106 (2016) (setting forth the exclusive rights of the copyright owner); *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005) (describing the framework for secondary liability, contributory liability, and inducement of copyright infringement in US copyright law).

²⁷ See 17 U.S.C. § 107 (2016) (describing the fair use doctrine). In the UK, see Copyright, Designs and Patents Act 1988, Section 30 (among other sections addressing the defense of fair dealing).

²⁸ See 17 U.S.C. § 504(c) (2016) (providing for remedies for infringement).

²⁹ See Copyright Act, 1911, 1 & 2 Geo. 5, c. 46, § 1(1) (Eng.).

³⁰ Copyright, Designs and Patents Act 1988, Section 1.

³¹ See Code de la propriété intellectuelle, art. L111-1 ("*L'auteur d'une oeuvre de l'esprit jouit sur cette oeuvre, du seul fait de sa création, d'un droit de propriété incorporelle exclusif et opposable à tous.*"). French copyright statutes from the earlier part of the nineteenth century referred in translation to the works of an author, but the original French is *ouvrages*, which more likely points to a tangible product of an artist or artisan. See *Loi 3869 du 28 Mars 1852 rapport et décret sur la contrefaçon d'ouvrages étrangers* [Law 3869 of 28 March 1852 on the Report and Decree on the Counterfeiting of Foreign Works], *Bulletin Des Lois De La République Française* [Bulletin of Laws Of The French Republic], No. 510.

³² Berne Convention for the Protection of Literary and Artistic Works, 828 U.N.T.S. 221, art. 1 (9 September 1886).

(Judge and Gervais 2009, pp. 375, 401, citing Gervais 1998) In short, the work is originality (akin to knowledge, in parallel with the knowledge/authority duality noted earlier), or the work is authorship, or both.

In sum, the idea of the work as an abstract legal thing is fundamental to copyright law, has long been fundamental to copyright law, is under threat by technological shifts, but was never well understood or explored in the first place. Copyright speaks with two minds: There is at once a consistent sense that the work is fundamental to the law and a concurrent denial or, at best, equivocation, about its existence, meaning, and purpose. Copyright scholars, courts, policymakers, and lawyers have been insufficiently attentive to the several dimensions of the work—functional, expressive, and communicative—which, combined, should inform our understanding of what the work is, what it means, and what it does in society and culture, as well as in law.

Before turning to those questions in depth, I pause in the next Section to put the question of the work and governance in the broader setting: things.

4. Governing Things

One may reasonably ask, “why should one be concerned with things?” This Section addresses that question by laying a foundation for putting the topic of the copyright work in the broader context of things and governance.

In framing things as part of governance, this article picks up where another earlier article left off. In *Law as Design: Objects, Concepts, and Digital Things* (Madison 2005a),³³ I outlined the significance of the thing, in material, immaterial, and conceptual forms, as a modality of governance, including law. I drew attention to the roles of things in both static and dynamic forms and pointed to the need to understand the character of the authority and legitimacy of things. That led to an extended analysis of the several ways in which things emerge and are formed by formal law and by social practice. I suggested that the law itself makes its objects, sometimes building them and sometimes finding them, and in that sense the law itself makes culture. The conclusion of *Law as Design* hinted at what might be made of the thing via a broader investigation of its role in governance generally. Here, via the illustrative case of the work in copyright, I return to that topic. The specific case is meant to illuminate larger questions of the dynamics and purposes of governance.

By governance, I refer to the multiple relationships among various institutional actors, from individuals to governments, with respect to a specified resource or set of resources. Those relationships partly have to do with the resource itself (how it comes to be and how it is used, shared, saved, or consumed). Those relationships may be purely social, but relational life exists on a continuum. Those relationships may consist of formal, positive law and legal systems, may consist of informal discipline, and may consist of other modes of control or alignment. Where and how do those actors, resources, and relationships arise, and how are those relationships put into practice?

My argument is not always so formal and constrained. Brad Sherman and Lionel Bently rightly put an equivalent point more simply and directly: Law itself is creative (Sherman and Bently 1999, pp. 176–93). It makes things (IP things especially, in their account), and the making defines social relationships, by creating them, reflecting them, and refracting them. Pierre Schlag takes the argument to its logical conclusion, pointing out that law, culture, and society are, in important senses, indistinguishable (Schlag 2009). Even if that observation risks taking matters a step too far, the edge of metaphorical governance map that aligns these three phenomena bears observing. Lawyers and scholars talk pragmatically about the separate social worlds of law and other social and cultural life, but doing so risks ignoring the thick mesh of overlaps, connections, and feedback loops among them (Cohen 2012). Examining things as governance means examining one critical set of those interdependencies. This article advances a vision of the work in copyright, alongside other IP things, as

³³ For a sampling of recent scholarship renewing interest in thing-ness in property law, see (Ferzan 2010; Fennell 2012).

an object that goes beyond its role in a particular system of law and specific disputes and transactions and that links to broader themes of governance in law, culture, and society.

A detour is warranted into the prospects of further inquiry into things as governance, both to preview further research and also to plant some seeds that bear fruit in the discussion of copyright works below.

4.1. *Governing What, and Governing How?*

What does it mean to say that things govern, and why are the answers to that question important ones? The questions have multiple answers. Governance might be built into the thing, or might be part of a necessary interpretive practice surrounding the thing, or might co-exist with the thing as a broader institutional practice. Those three examples can be illustrated briefly.

Materialist accounts of things focus on the proposition that things have physical attributes, which govern because those attributes enable certain behaviors and disable others. In this spirit, writing about computer code that implemented technology-based restrictions on accessing expressive and informational material in digital form, Lawrence Lessig wrote, “code is law” (Lessig 2006, pp. 120–25). He argued that digital gatekeeping could be provocatively contrasted with gatekeeping under law. A richer version of that position points to behavior enmeshed in sociotechnical architectures (Mayer-Schönberger 2008). For example, automobiles may be designed so that drivers cannot avoid the use of seatbelts.

Accounts of conceptual things might focus on the implications of classification. Copyright law is famous for a body of cases often referred to as “new use” cases, in which parties to a license characterized the permitted use of the work as one thing but ended up in court later when the actual use appeared to consist of a different thing. One court wondered, is an e-book a “book”?³⁴ Another wondered whether a videocassette version of a film constituted a “motion picture”.³⁵ Those cases and others like them constitute a small body of law, with rules and standards suited for resolving the specifics of each dispute. The narrow and conventional view of these cases is that they concern the failure of parties to bargain regarding future events that they might have foreseen (or might not). A broader and different point is important here. As argued and as decided, these cases raise important classification issues. Those classification issues lie in the domain of the work, and they are governance problems because the resolution of the classification issues directly implicates permitted and unpermitted behavior. The pragmatic character of things, as things are interpreted in context, is an unavoidable part of what those things are and what they do.

Those two examples, from materiality and immateriality, focus implicitly on limitation (what a physical object prevents a person from doing) and exclusivity (what the definition of a conceptual object such as a work implies in terms of permitted behavior). A third mode of governance focuses instead on modes of governing abundance and governing shared things. Intangible and immaterial things are not scarce, in economic terms. Still, legal, technical, or social conditions governing their use might be introduced to promote collaboration or coordination among different groups or individuals, or to enable the thing to be preserved over time, again, often by informal groups and formal institutions. Open source licenses for computer programs are examples of governance in this mode (e.g., Schweik and English 2012).

The three examples do not provide an exhaustive summary of things relative to governance, and the three are not independent of each other. Governance strategies may be mixed and matched, because not all things are alike. Things and thing-ness (its presence and absence) as an institutional governance practice are situated in a wide range of larger-scale, differently-scaled, interdependent governance institutions. Governance implicates resources (collections of things), individuals, groups, organizations

³⁴ *Random House v. Rosetta Books LLC*, 2001 150 F. Supp. 2d 613 (S.D.N.Y. 2001), *aff'd*, 283 F.3d 490 (2d Cir. 2002).

³⁵ *Boosey & Hawkes Music Publishers, Ltd. v. The Walt Disney Co.*, 145 F.3d 481 (2d Cir.1998).

and informal collectives, and states. Who (or what) is a person? A group? An organization or a firm, or a state? What are relevant resources? How are those elements related, in time and space and in inference and causation? Things are parts of larger institutional assemblages. Not only do we want and need to know where do things come from (property and contract accounts may give different answers, for example), but also what are the origins and histories of things, how are they functioning today, and what roles will they play in the future, as they (and people and institutional settings) change? What roles do they play in themselves and as expressions, mediators, and guides for social relations?

That is a long list of open-ended, abstract questions, so the answers should be as concrete as possible. What makes a thing a “thing,” a longstanding philosophical question, should be converted into a pragmatic topic. Whether something is a thing (or is not), or its thing-ness, is a question of how humans treat them as things. There is no “essence” of a given thing or necessary “morality” of a given thing. Things are what they are and are not (and what they do and do not) because as social beings, we say they are. Law and governance are modes of expression, with functional as well as symbolic implications.

I should reiterate and make clear a central piece of that summary. Things, as governance, are social institutions. Things and governance may be virtuous and productive. They may be harmful or costly. The program here is to understand them as features of social life,³⁶ rather than a specific thing in relation to a specific human actor. The case of the copyright work in general and as documented in specific instances (in the next Section) illustrates how that perspective is observed and followed in practice.

4.2. Distinguishing Property Law

The social, institutional orientation distinguishes my approach from a couple of relatively standard approaches to governance in the context of things. One is property law. For many people, property law is the starting and stopping point when asking and answering questions about things. Henry Smith characterizes property as “the law of things.” That’s too simple, because it takes a complex range of social practices, some traditional, some novel, and some emergent, and shoehorns them into a conceptual category that was formalized many decades ago, as a part and product of the rise of industrial capitalism and the nation state during the 19th century and early 20th century.

Within property law, the back-and-forth of interest in things has taken a well-recognized path. More than one hundred years ago, early critics of American industrial capitalism launched critiques of law and its forms as objects and instruments of power. The “thing-ification” of property was a particular target (Cohen 1935). Among legal scholars and law reformers the pace of property law during much of the 20th century was largely a conflict between a somewhat reformist “bundle of sticks” concept of property³⁷ and the related focus on legal entitlements, on the one hand, and the persistent integrated “thing-ness” concept of property, on the other hand. In the former, “bundle of sticks” model, each stick in the property “bundle” is a part of a method of representing an underlying object of property as a distinctive and distinguishable thing-ified legal interest, or relationship among actors. The metaphorical stick is an immaterial legal thing. In the latter mode, the immateriality of the stick is its potential undoing as a legal instrument, because its apparent lack of thing-ness may deprive it of stability and predictability. In recent years, Smith has been leading a small chorus of scholars re-habilitating the concept of things as such in property law, arguing that the distinction between a “bundle of sticks” model and a “thing-ness” model is grounded less in immateriality and materiality and more in analysis of how information costs associated with delineating legal rights interact with the scale of the resource (e.g., Smith 1996; Penner 1996). The payoff is a renewed interest in exclusion

³⁶ In related vein, see, e.g., (Appadurai 1988; Brown and Duguid 2000).

³⁷ E.g., *Henneford v. Silas Mason Co.*, 300 U.S. 577, 582 (1936) (Cardozo, J.) Justice Cardozo was rendering in Supreme Court jurisprudence a metaphor that likely was in long circulation. See (Duncan 2002).

rights as the primary property interest in things and a degree of coherence in a doctrinal domain often criticized for its eclecticism.

Yet aligning things closely with property law is not a complete solution to the question of how to conceive of things as law and governance, because doing so in practice often puts the property cart before the horse of things. In different but not unrelated senses, Smith is right that stick-as-thing and object-as-thing both implicate things. But the result of that insight, retreating to property law and prioritizing exclusion rights as a result, is premature. The thing, not property, is the supercategory, even if it may be important at times to distinguish among material things, immaterial things, and concepts as things in particular cases. The collection of conventions and traditions that we call property is one possible institutional framework through which we create, govern, and are governed by things. As she often does, Carol Rose has the best word. Property is a collection of stories about things (and about land and other resources) (Rose 1994), which speaks to and is constitutive of communities, with protagonists, antagonists, inclusion and exclusion points, and arguments about the uses of objects and boundaries.

Stories of property as a governance are most comprehensible and effective in a world of prior, mostly static things and other resources, or least worlds of things that exist in well-defined and well-mannered forms. They are also most comprehensible and effective in a world defined by individual interests and obligations. In conventional terms, property concerns what individual actors do with things. Conventional property stories are less stable and effective when things and other resources are changing both as individual things and as collections, when those changes are the consequences of property arguments rather than their premises, and when the resource governance questions are collective or cooperative rather than individuated (e.g., Peñalver and Katyal 2010). Water law, for example, is a complex and fluid property domain that is not easily expressed with a static thing-like sensibility. Collective governance of shared resources, such as water systems, is not easily accommodated to a thing-based sensibility. Governance in such settings may be marginalized by property scholars as raising comparatively rare and exceptional questions (Rose 2011, 2015; Smith 2016).

4.3. Distinguishing Science and Technology Studies

A second analytic framework for governance and things is signified by science and technology scholarship on governance of (and by) material things. Science and Technology Studies [STS] scholars have been especially adept in exploring the complex politics of scientific knowledge and material things.³⁸ In part, I am mapping some of their insights and insights onto law, as other scholars have done. Alain Pottage in particular has written at length with regard to the utility for law of Actor Network Theory [ANT], associated with Bruno Latour and John Law, for examining complex social relationships among humans, technical practice, and material things (e.g., Pottage 2012). Material objects are developed and used in networks of relationships that are affected by historical, economic, and social conditions at micro levels (such as the microscope in the laboratory) as well as at macro ones (the lab as a site for the conduct of biology as a discipline).

A related thread of STS scholarship concerns the concept of affordances, developed and deployed initially in the study of environments and ecologies and later deployed by designers of artifacts and

³⁸ Science and Technology Studies [STS] encompasses a range of methods and perspectives, clustered around a sociological and historical sensibility that grounds material life in social considerations. Among the leading theorists are Bruno Latour and John Law, associated with Actor-Network Theory [ANT]; and Wiebe Bijker and Trevor Pinch, associated with the Social Construction of Technology [SCOT] theory. Significant STS contributions to thinking about things have come from Langdon Winner and Steve Woolgar. See (Winner 1980; Woolgar 1991; Woolgar and Lezaun 2013). Some of these scholars emphasize the social relations underlying the material thing; some emphasize the interpretive flexibilities in material things; some emphasize the contingent interdependencies among material things. The fact that STS scholarship is far from univocal is well-illustrated by the critique of Winner in (Joerges 1999).

technologies for humans (Gibson 1977).³⁹ Affordances implicate the attributes of an environment and resources within that environment, which facilitate their uses in certain ways and disable other uses. They are relational, in the sense that they marry the capabilities of an environment or a thing to the perception of the individual (usually, for my purposes, a human). Perceptions of things and their qualities may lead to their serving as mechanisms for social coordination and convention regardless of their characterization as affordances, a proposition made famous by Thomas Schelling (Schelling 1960). Focal points, sometimes known as “Schelling Points,” are defined by reference to problem-solving and game theory, but they help to illuminate the problem of coordination without communication. In spatial problems, a Schelling Point is an informal location where people are likely to meet each other. They play roles similar to landmarks in navigation. Perceptions and conventions regarding things and their functions may signify and express power relations among designers, producers, and consumers of objects. They make concrete the ways in which objects and people are linked in larger social and cultural processes, in both natural resource and cultural environments. Some of that theorizing, too, has made its way into legal scholarship (Reidenberg 1998).

Like property frameworks, STS frameworks have their uses but also their limitations. They are most persuasive when dealing with material artifacts and with artifacts as signifiers of social practices in scientific and technical domains. When the terrain shifts to immateriality and conceptual things—terrain that is particularly important to law and culture, where ideas are less certainly or consistently embodied in practice and objects, and when the terrain shifts from coordination of individuals to conflicts among groups and other institutions—STS arguments are useful but ultimately less than fully persuasive. Cause and effect relationships are less accessible for diagnosis, because the affordances of an immaterial thing, such as a copyright work or a patented invention, are largely the products of law itself. Diagnosing interwoven and conflicting relationships among institutions and affordances is challenging. STS analysis concentrates on the social relationships that build and maintain things, but it is less effective at mapping overlaps among related social domains.

That doesn't make either property theory and practice, or STS scholarship, unhelpful or irrelevant. Not at all. But complex governance dynamics and implications of immaterial and conceptual things challenge their comprehensiveness and their comprehensibility. Whether one speaks of cultural things, scientific things, legal things, or conceptual things, not all things constitute or are constituted by governance in such express ways. Identifying and decoding governance in things often means a great deal of sociological archaeology or ethnography, in ways that yield governance insights but do not necessarily fit standard modes of legal or sociological analysis. Examples are plentiful in the cultural domain. Andy Warhol, following Marcel Duchamp's pioneering “readymade” artworks, built Brillo boxes that imitated the original packages containing Brillo scrubbing pads; Christo draped landmarks and landscapes with fabric. They are recognized as artists, but not without enduring significant cultural and legal controversy and not without challenging established conceptual and social frameworks that lead us to conclude that they made art, and artworks, and possibly copyright works (see (Madison 2011b)). Digging deeply into the concept of the copyright work is in larger part an effort to undertake such a broader inquiry about practice and perception. I keep the pragmatic front and center. People relate to things, and things relate to people. In some instances, as Kara Swanson describes, law and culture even turn people into things (Swanson 2014).

4.4. Things, Patterns, and Change

Building on attention to the social and to institutions, what makes a thing a “thing,” a governance mode, to return to the pragmatic question stated earlier? For practical purposes, things are often parts of recognizable and recognized patterns, embodied in practice and material or other forms. They constitute and are constituted by patterned social behaviors, individuals aligning their behaviors

³⁹ The concept was popularized and extended via Donald A. Norman (Norman 1990).

with each other and acting as loose collectives.⁴⁰ The key insight here is that while social life comes in patterns, its patterned character gives it flexibility, not rigidity. Things participate in governance via their inclusion in patterned social life.

The argument that social life depends heavily on production and recognition of patterned behaviors has appeared in writing as diverse as Christopher Alexander's architecture and design theory (Alexander 1979); William Gibson's fiction (Gibson 2003); and Pierre Schlag's legal theory (Schlag 2002). Judge Learned Hand's "patterns" approach to identifying an expressive work in copyright is a variant.⁴¹ Focusing on patterns in governance is, in part, anthropological. Patterned social behaviors echo ritual and craft practice, both of which often have a "thing-like" character, as opposed to the diversity or idiosyncrasy of particular "unique" items, or sequences of events. That parallelism is intentional. In studying things and governance, looking for patterns is an important way to understand how things extend culture across space and time. Rituals provide mechanisms of repetition that enable cultural forms to spread and survive.⁴²

Patterns and elements within them may change. How, when, and why they change are open questions. Stasis and fixity are important socially, culturally, and legally. So are fluidity, dynamism, and change. Governance entails both; things entail both. Blending both perspectives requires meaningful attention to both patterns and changes. Bill Brown, in cultural theory, suggests that maintaining an overly-fixed and familiar concept of the thing can undermine its very thing-ness (Brown 2013).⁴³ In this sense, to preserve their identity things *require* (descriptively) some variability and instability based on social engagement. This is a moment where thing-ness, as form, clearly blends with about-ness, as substance. Lambros Malafouris suggests a basis for that blended relationship in cognitive psychology. He argues that engagement with material objects contributes to the evolution of thought itself (Malafouris 2013). Ian Hodder, in archaeology, makes a related case for the "entanglement" of humans and objects (Hodder 2016).

Where is the IP thing or the copyright work in this summary? The point is that IP things and copyright works govern because they are often identified with respect to one or more patterns of social behavior, organized in context. A book in a library is the same "thing" and the same "copyright work"

⁴⁰ Not too much in this article hangs on a specific definition of culture, but for completeness here is a working definition. I use "culture" to refer broadly to socially patterned conceptualizations. Shared ideas, for short. That definition is broad enough and flexible enough to include individual or specific material objects produced by humans, mass produced objects, and formal and informal social institutions and practices and to get at the polycentric and nested character of culture, which is how it equates with governance. The definition accepts a social constructionist view of culture, but not so strongly that it is indifferent to physical limits and sources. In a similar but somewhat less inclusive vein is Julie Cohen's discussion: "'culture' and 'cultural goods' as a simpler shorthand for the universe of artistic, intellectual, and informational artifacts and practices. Sometimes one simply needs a word to use" (Cohen 2012, p. 18). To the extent that one needs to marry that view to a mechanism by which culture (ideas) change, consider the hypotheses of the field of epistemological evolution (Plotkin 1997), and the data collected by evolutionary biologists studying material culture. See (Tëmkin and Eldredge 2007).

⁴¹ *Nichols v. Universal Pictures Corp.*, 45 F.2d 119 (2d Cir. 1930). Judge Hand wrote: "Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his 'ideas,' to which, apart from their expression, his property is never extended" (45 F.2d, p. 121).

⁴² "Rituals are structured mechanisms of repetition that work by resonating with, and reproducing patterned—and patterning—relations. A long tradition of work in anthropology tells us that ritual practices stand for, symbolise, and reassert larger relations: that the macrocosm is located within and stabilised by the microcosmic practices of ritual". (Singleton and Law 2013) (evoking Durkheim, Marcel Mauss, Claude Lévi-Strauss, Mary Douglas, and Victor Turner). In IP law, the anthropological instinct regarding the role of IP things in structuring rituals of social practice is best expressed by Barton Beebe (Beebe 2010).

⁴³ "The story of objects asserting themselves as things is the story of how the thing really names less an object than particular subject-object relation" (Brown 2001, p. 4). In other words, thing-ness addresses change rather than stasis. This is the spirit of Heidegger, who distinguished between an unconceptualized "thing," who meaning had yet to be actualized, naturalized, or solidified as a social "object" known collectively by many. See (Heidegger [1927] 2008). Stable "objects" have a coherent logic of aesthetic features, technical philosophy, cultural lore, a legal history, and so on. They are unproblematic, beloved. An object strikes its users as familiar and beyond the scope of critical awareness. Its social meaning is held in place through regular patterns of circulation and use. "When we misuse an object (a spoon used as a knife) or when an object malfunctions, its thing-ness is laid bare in the sense that its material characteristic becomes evident". See (Coleman 2013).

as that same book in a person's home, or in a classroom, or on the shelves of a bookstore or in an online catalog. It is, simultaneously, different "things" (or "works") in different settings, because patterns of acceptable and appropriate use, including lawful use, vary from setting to setting. In short, the book and the work(s) that it embodies is dynamic, in a sense, because of how the book or the work is interpreted by various actors. That dynamic relationship among work, setting, and appropriateness (and lawfulness) is part of governance.

This point about patterning is conceptual and suggestive, and as with my note earlier about STS scholarship, it is grounded more in the study of material objects than in immaterial or conceptual things. But other scholars have linked the governance dynamics of the material and immaterial in related ways. Innumerable material objects are "enchanted" in one respect or another with intangible attributes.⁴⁴ Those attributes may consist of the "aura" of authenticity of the original artwork critiqued by Walter Benjamin; or other affective characteristics intrinsic to the thing because of its origin, as Rebecca Tushnet describes;⁴⁵ or affective characteristics extrinsic to the thing because of its associations, such as wedding rings, sports trophies, and books once owned by famous people (e.g., [Basbanes 2003](#)). Legal attributes, such as immaterial IP interests that "travel with" material objects, are the most directly relevant examples here. The so-called Internet of Things, in which the attributes of material objects may change by virtue of computer code transmitted to or from those objects, is perhaps the broadest manifestation of the dynamic blending of the material, the immaterial, and the conceptual thing ([Pew Research Center 2017](#)).

4.5. Things, Governance, and Cultural Ecologies

Highlighting things as parts of stable and changeable social patterns means highlighting not only questions of attributes and interpretation but especially boundaries and borders and their physical and interpretative plasticity, permeability, and fluidity. What are the attributes and limits of the group and the institution? What are the meanings assigned to those boundaries? Neither question needs to have single or simple answers. Pluralism is often the inescapable and even productive outcome. Briefly, to take IP law as an example (the discussion of works in the next Section expands on that point), in what respects should the law particular persist with the expectation, often associated with property law, that works and inventions (and property-ish things generally) be consistently identified with clarity, specificity, consistency, and certainty? In what respects should the law seek out or accept the fluidity of what appear to be (or what could be created to be) the fixed boundaries of the thing?

One might try to solve part of this problem by reframing the governance question so as to de-prioritize property and highlight an alternative framework, such as competition law or tort law, that is less invested in a thing-like conceptual foundation. Fluidity allows the law to address competing and therefore plural values with respect to any particular legal and cultural thing and competing and therefore plural values with respect to the existence, definition, and scope of classes of things. The point is that it is preferable as a starting point not to invest in the legal category and rather to invest in the governance question. Things are loci of contests and reconciliations among dynamic, overlapping, and sometimes competing governance modes.

Firm and fluid social patterns in things and governance implicate two other key concerns. One is scale. The other is fit.

⁴⁴ This borrows a phrase from ([Rose 2014](#)).

⁴⁵ "Spring Symposium: Critical Legal Studies and the Politicization of Intellectual Property and Information Law" ([Tushnet 2013b](#), pp. 601, 608) (remarks of Rebecca Tushnet). In oral remarks, she said: 'Work' in this context, I think, gives dignity to the fans who are making things, who are often culturally disadvantaged people who are regularly mocked for consuming the very things that have been produced so that people will like them and consume them. And of course consumption here means intellectual activity: watching and listening, thinking, creating new things in response. We are trying to appeal to the dignity of work, which is, I hope, not entirely lost. Endowing things with value because of the labor associated with creating them may subject to cognitive bias. Individuals overvalue what they produce. See ([Norton et al. 2011](#)).

Scale means size and scope. Social patterns may be large or small; they may be broad or narrow. Things generally may change both in significant ways and in small ones, perhaps because the significance of the change registers primarily with a limited number of people, or because small changes only become significant over an extended period. The “new use” copyright cases mentioned earlier illustrate how large changes in the character of relevant things, taking place over long periods, only registered with legal immediacy in the context of disputes between two parties. Some of the illustrations of technological change given earlier, notably the Internet of Things, are significant in governance terms precisely because they are big in one or more ways, particularly in the sense that they interact with so many existing patterns in social life, threatening mostly-settled patterns in the law. Governance operates simultaneously but differently at micro and macro levels.

Scope also includes time, a point illustrated as well by the “new use” cases. There are the small increments in which legal and cultural evolution is so almost entirely ordinary or normal that it is essentially imperceptible. Law and culture, particularly decisions and judgments by common law courts, are emblems of ordinary change and the iterative, normal relationship between culture and legal rules. In a sense, change gives law and culture their very identities, or identity. If one way to look at law and things as intertwined governance is to ask, “What are the foundational concepts and pragmatics of law and culture as they change, often dynamically and rapidly?”, then an equally important if somewhat conventional question is, “What are the foundational concepts and pragmatics of law and culture as they persist today?”. Those questions can be re-stated in governance terms. For things, what is and should be constant, and what is and should be new?

Fit is shorthand for conceiving of things and governance in ecological terms, regarding things not only in themselves but also as parts of larger systems of both things and governance. The question is rarely “what about this thing?”, but instead, “where [and how, or why] does this thing fit in the larger scheme of things?” Lawrence Lessig wrote, “code is law” (Lessig 2006) because he focused on the interaction between ubiquitous computer technology and the individual, who could not reason with it. Jack Balkin wrote, “code is lawless” (Balkin 2015, p. 52), focusing on those same attributes, but better capturing the breadth of the governance problem. Balkin expressed concern that vast amounts of computer code is embedded in systems of massive significance in the modern world yet are functionally immune from meaningful human or legal oversight.

A lawless thing is a thing run amok, undisciplined, in the neighborhood, community, collective, or world, apt to evolve and engage with people (and with other things) in unexpected or unpredictable ways. It is an environmental problem, not only a problem for a given individual. Things as governance highlight questions not only of relations among individuals but also of the identities, values, and functions of broader social worlds, including cultural, and economic groups, formal organizations and institutions, and markets, that is, boundaries between law and culture, and between competing cultural interests.

The added implication in ecological or environmental terms is that relations among things and individuals and among social worlds might be tighter or looser, more or less closely aligned, or broader or deeper, in transactional terms or in terms of other sorts of social proximity or social values. Materialist and geographic metaphors play increasingly pronounced roles in exploring the relevant governance questions, likely because of how humans typically experience the world: in material and metaphorically material ways, collectively as well as individually.⁴⁶ We “upload” and “download” material “on” the internet, though there is nothing vertical or physical about the relevant information technology. Increasingly, digital content is stored “on” or “in” the cloud, a metaphor for distant (and perhaps skyward) and vaguely understood storage systems.

⁴⁶ The literature on so-called “cognitive metaphor”, often associated with George Lakoff and Mark Johnson, is extensive. For a deep application and appreciation of this perspective in law, see (Hunter 2001). The link between metaphor and cognition has been shown to operate at the collective level as well as at the individual one. In representational terms as well as in tangible ways, things are social. See (Hutchins 1995; Malafouris 2013).

Mapping these social and cultural ecologies to include the governance roles of things (in a way that appropriates the materialist, geographic metaphor) is helpful (Samuelson 2003; Munzer 2009),⁴⁷ but at what scale? What patterns should be included (to recall in part the earlier point about things as consistent social patterns)? What features should be excluded and what included, and what purposes should the maps be put to? Detailed, explicit maps may be descriptions of precisely where people have been and where people may go (where they are permitted to go, where they are expected to go, and/or where they may decide to go). At crude or primitive levels of abstraction, cultural ecologies (which may include things, or which may be things in themselves) may serve more as cultural infrastructure, or governance by indirection, meaning that they enable people to build their own things on top of and amid earlier, existing things. Ecologies enable people to see and experience interdependencies but also enable people to go new places and learn new and make new things. In other words, things in ecologies are generative, in Jonathan Zittrain's terminology (Zittrain 2008). Looking at things as governance implies asking: What are the mechanics and dynamics of generativity, and what are the strengths and weaknesses of things in an ecological setting?⁴⁸

My answer is this. In earlier writing, I described the idea of cultural "borderlands" in IP law, representing different modes of knowledge production and distribution (Madison 2009, p. 2045).⁴⁹ The "borderlands" metaphor describes the idea that those modes are not merely adjacent (for example, the idea that copyright law and patent law describe—and should describe—adjacent but clearly delineated cultural and legal domains), but overlap in complex ways, and that efforts to eliminate or efface those overlaps are unlikely to succeed and in all likelihood should not. Those overlaps may co-exist simultaneously in "horizontal" dimensions (copyright "next to" patent) and in "vertical" dimensions (copyright "above" the public domain—or perhaps below), in temporal dimensions, material/immaterial/conceptual dimensions, and otherwise.

At the same time, gaps and breaks of different sizes may be present or may be introduced or recognized purposely in those borderlands and elsewhere. Julie Cohen calls for affirmation of the value of "semantic discontinuities" in the cultural landscape so that individual identity, autonomy, and privacy may be guarded against overly expansive applications of technology and legality (Cohen 2012, p. 31). Cultural ecologies may be recursive, in the sense referred to earlier that the practice of using cultural tools may lead to creating and maintaining legally-recognized social groups. Christopher Kelty explains how open source computer software programs (things, in my parlance) are constitutive of and are constituted by the collectives of programmers and the license terms that govern the program code. Kelty calls these ecologies of thing and governance "recursive publics" (Kelty 2008). Governance and thing appear to be one.⁵⁰

That series of propositions may imply a tighter or closer integration of thing and governance than I intend. Social patterns may be strong and clear. Social patterns may be light and loose. They may be carefully and predictably scripted; they may be unplanned, chaotic, or emergent. Things are parts and parcels of this dynamic. They represent oscillations among socially patterned fluidity and flexibility

⁴⁷ Certain policy debates in IP and information law have express geographic dimensions, notably claims surrounding traditional knowledge, geographical indications, and access to knowledge. Each of those debates includes problems concerning relevant IP things that could be approached as I have approached copyright works in this article.

⁴⁸ The relevant literature suggests that effective governance oscillates between tight-knit and loose-knit patterns of social and object relations. The issues are normative as well as descriptive. James Boyle describes the changing politics of the public domain, arguing against a re-inscription of the classical public/private divide and in favor of express consideration of the kinds of social relations needed to produce desirable individual and social outcomes (Boyle 2008). Julie Cohen describes the problem of information governance as calling for a critical blending of the person and the cultural (Cohen 2017). Her work evokes critical analysis of human/machine blends in (Haraway 1991).

⁴⁹ The borderlands metaphor is borrowed from (Sassen 2006, pp. 379–86).

⁵⁰ The proposition is intended to evoke both contemporary equations of materiality and sociality, e.g., (Law 1995), and also the social foundations and expressions of knowledge, e.g., (Mokyr 2016).

and patterns of fixation and stability that are essential to social life. The progress of culture almost certainly entails governance in multiple modes.⁵¹

5. Copyright Works as Boundary Objects

The last Section can be summed up as follows. Things are parts of governance by distilling and organizing patterns of social life via fixed and dynamic, identifiable and individual and sociable, ecologically situated, material, immaterial, and conceptual objects. One of the largest scale cultural practices in the world is unified in all of its diversity and dynamism by its shared orientation to a single, standardized thing: the football (in the US, the soccer ball). That is an extreme and obvious example. Where and how do copyright works fit into this framework? The relationships among thing, governance, and culture and society are best explored and illustrated in context. The copyright work is a rich and fertile territory.

I got interested in copyright works and things because of earlier research on fair use (Madison 2004, pp. 1622–87), which led me to focus on the patterned dimensions of social life and on social worlds aspects of copyright more broadly. In a later article, I reframed some of that interest by suggesting that copyright generally could be seen as crudely dividing the world of cultural production into social worlds described as markets, on the one hand, and social worlds described as on non-market interests, on the other hand (Madison 2012a), a partial but incomplete adoption of socio-economic thinking that divides the world of into market economies and gift economies.⁵²

What I propose to do here is recapture and repurpose a more detailed version of that social worlds concept in the context of things and governance, and in particular in the context of the copyright work. In colloquial thing-ness terms, the work is the thing that copyright attaches to in the first place, the thing whose autonomy, consistency, stability, and identity constitute the subject of copyright conflicts and transactions, and the currency of copyright's representations of knowledge and expressive culture. In colloquial about-ness terms, the work as thing is about both itself (it is a legal object and subject in its own right) and about something else, which is to say, it is "about" or represents another thing (a creative or expressive contribution) or still another, additional thing (the labor, effort, or insight of the creator(s)). Judging how to distinguish and integrate those attributes consistently and clearly in the case of the work as an overall concept, and in the context of a particular dispute or transaction, is extraordinarily difficult. As difficult as that exercise is in a case involving work-as-text (a book, a poem, a play), it is all the more difficult in cases involving other forms of art, such as visual art and

⁵¹ Because the appeal of the *unexpected* in social life, the departure from the expected pattern, is not obvious, researchers and scholars in a number of disciplines have pointed out the importance of loose and fluid connections. In cultural criticism, Terry Eagleton wrote, "Cultures 'work' exactly because they are porous, fuzzy-edged, indeterminate, intrinsically inconsistent, never quite identical with themselves, their boundaries continually modulating into horizons" (Eagleton 2000). Through the lens of cultural theory, Julie Cohen emphasizes the "play" of autonomous, independent everyday practice among individuals and culture, across and beyond cultural and political boundaries, in catalyzing the progress of culture and human flourishing (Cohen 2012, pp. 82, 90, 130–51). Lee Anne Fennell, in the language of law and economics, argues that property resources often should be treated as "agglomerations" rather than as single things (private goods) to promote social welfare values associated with interdependencies (Fennell 2016). The "agglomeration" of things rounds out another linkage between analysis of things and culture and metaphors involving place and space. On agglomeration economics generally, see (Glaeser 2011). The scales of the interdependencies vary: size, complexity, value, individual and group identities and capabilities, perceptions and actualities of needs and wants, and so on. Using an institutional economics perspective, Brett Frischmann argues that classifying resources as infrastructure rather than as ordinary private goods better captures their potential to generate unexpected and unpredictable downstream social value (Frischmann 2012). The economic sociologist Marc Granovetter points out that social relations shape and enable action. The "economic" (the domains of production, distribution, and consumption of resources) and the "social" (the domain of intragroup and intergroup relations) happen concurrently; they affect each other (Granovetter 2017). See also (Granovetter 1985). Granovetter emphasizes the key roles in that dynamic played by "weak" as well as "strong" social ties, and by structural "holes" (Granovetter 1973, 2017, pp. 110–15).

⁵² On the logics of gift economies, see (Hagstrom 1965, pp. 12–13; 1982, p. 21; Hyde 1979, pp. 60–61, 150–58, 190–94).

music, where there is no literal “text” to rely on (Tushnet 2012; Fishman 2017).⁵³ As the law uses the term, what does it mean?

5.1. A Literature Review

A single definition for the word “work” in copyright would be too inflexible to deal with all the purposes that we assign to the subjects and objects of copyright and to all of the things that have been covered by copyright and might be covered by it in the future. Copyright interests and claimants assign a multiplicity of values to any particular work, but also to the very concept of the work. Existing scholarship on the question takes very different approaches to the work but is generally agreed with respect to the challenges and opportunities of pluralism. Before laying out and exploring my proposal to look at works as patterned, sociable things, I briefly review what others have written.

The intellectual landscape spans cultural, historical, economic, and doctrinal analyses. Reviews of the work in copyright can be clustered nonetheless into three broad, rough, and sometimes overlapping categories.

First are claims based on intentionalism. The work, in one respect or another, is or should be defined as the product of the author’s intentions or purposes in creating *something* expressive or creative. At times this mode of analysis completely subsumes the concept of the work within the concepts of authorship or originality. That approach has both a respectable intellectual pedigree in copyright (the leading 19th century US copyright treatise, by Eaton Drone, focused on the author’s “intellectual production” (Drone [1879] 1979)), embodiment in current efforts to harmonize European copyright law in the European Court of Justice,⁵⁴ and grounding in current US copyright law in the statutory phrase, “copyright subsists in original *works of authorship*”.⁵⁵ It continues a line of thinking that some have traced to the idea of the “Romantic” author in literary criticism (Woodmansee 1984). Variations on this theme appear in writing by Christopher Buccafusco (Buccafusco 2016a, 2016b), Christopher Newman (Newman 2011), Jonathan Griffiths (Griffiths 2013), Justine Pila (Pila 2010), Joseph Miller (Miller 2009), Maurizio Borghi (Borghi 2007) and Michal Shur-Ofry (Shur-Ofry 2011). A thoughtful recent collection of essays titled *The Work of Authorship* is concerned with authorship, in primary part, rather than with the work as such (van Eechoud 2014).

Second are efforts to identify the work in copyright in some mode of objectively identifiable context, meaning outwardly accessible signals for functional effects. Affixing a formal notice of copyright to copies of the work would be one form of signal. The manner in which the work is fixed in tangible form would be a second, whether or not fixation were required by statute. Some of this signaling may relate to functional concerns internal to copyright, such as administrability and conceptual coherence. Some of this signaling may relate to functional concerns external to copyright but internal to the overall system of IP regimes, such as the pragmatics of managing distinctions between copyright and patent, or copyright and trademark (not to mention patent and trademark, and each and all of those three bodies of law relative to design rights). Some may relate to functional concerns external to IP but relevant to other law (such as property law, commercial law, or antitrust or competition law) or to cultural or commercial practice generally. At its broadest, the effort to identify the work in some objective sense attempts to bridge the chasm between the mechanics of copyright, on the one hand, and social and cultural welfare in its most general framing, on the other hand. In many cases, scholars include discussions of the work in copyright amid broader arguments concerning the character and functions of IP things. Variations on this theme include contributions by Paul Goldstein (Goldstein 2011), Justin Hughes (Hughes 2005), Pam Samuelson (Samuelson 2016,

⁵³ The reference in the text to “text” includes an indirect reference to (Fish 1982). Fish is famous for leading a school of literary critics associated with “Reader-Response” Theory, or the claim that the meaning of a text cannot be fixed by the author or in a manner defined by the author’s intentions. Meaning is established by interpretive practices in reader communities.

⁵⁴ *Infopaq International A/S v Danske Dagblades Forening* [2009] EUECJ Case C-5/08 (16 July 2009).

⁵⁵ 17 U.S.C. § 102(a) (2016).

2017), Jeanne Fromer (Fromer 2009), Mark McKenna and Mark Lemley (Lemley and McKenna 2016), Abraham Drassinower (Drassinower 2015), Margot Kaminski and Guy Rub (Kaminski and Rub 2017), David Fagundes (Fagundes 2009),⁵⁶ Joni McCutcheon (McCutcheon 2017), John Duffy and Richard Hynes (Duffy and Hynes 2016), and Henry Smith (Smith 2007).

Third are arguments that the work should be viewed in one or more interpretive contexts. Much of this research in copyright is aligned with or even motivated directly by engagement with related developments in philosophy, literary theory and cultural theory during the second half of the 20th century. In broad terms, the author himself or herself fades into the background. Readers or audiences and their understandings and perceptions come to the fore. The meaning of the work is constituted by shared practice. Or, authors and readers are in dialogue, expressed via the work, with that interaction framed by broad social concerns with knowledge and power, control, wealth, status, race, ethnicity, and/or gender. Or, the work, like other conceptual things, is a social construction, bounded by how it is digested by practice in cultural, technological, or commercial communities. Generally, these approaches lead to a greater tendency than in the first two to accept baseline levels of flexibility and fluidity in definitions of the work. Philosophical, literary, and cultural antecedents include Wittgenstein,⁵⁷ Foucault,⁵⁸ and Latour (Latour 1988), thinkers of very different sorts but with interwoven lessons for copyright. Scholars in this domain include Peter Jaszi (Jaszi 1991), Peter Drahos (Drahos 1996), Lionel Bently (Bently 1994, 2008), Alain Pottage (Pottage 2012), Brad Sherman (Sherman 2011), Zahr Said (Said 2017), Robert Rotstein (Rotstein 1993), Barton Beebe (Beebe 2017), Laura Heymann (Bently 2008), and Carys Craig (Craig 2011).

5.2. Boundaries and Boundary Objects

None of those attitudes toward the work is completely right, nor are any of them entirely wrong. The work is Whitman-esque. It contains multitudes. How does the work work? My claim in the remainder of this article is that the work should be considered both source and product of boundary-making and governing. The work as concept and the work as thing establish and govern social relations in the sense that the work documents and mediates intersections and overlaps among coordinated and sometimes conflicting patterns of social life, that is, different social practices, communities of practice, or social worlds. Sometimes firm boundaries work best; sometimes porosity is better. The challenge is to hold both concepts acceptably stable in a single system.

A strong sense of well-bounded things and thing-ness brings many virtues to copyright. Clarity and specificity in identifying the work in a given case or context helps authors, publishers, consumers, customers, users, intermediary and gatekeeping institutions, and litigants (actual and potential) know what is protected by the law and what is not, maximizing the things that many people assume should be maximized by any system of law, including copyright: justice, opportunity, human flourishing, social welfare, utility, economic efficiency, and distributive equity. For those who look at the world primarily in economic terms, clear and definite boundaries may reduce information costs, collaboration costs, and exclusion costs, three species of transactions costs that have important implications for

⁵⁶ Building on a metaphor associated with Carol Rose that contrasted crystalline property entitlements with “muddy” alternatives.

⁵⁷ Wittgenstein wrote: “[T]here is a way of grasping a rule which is not an interpretation, but which is exhibited in what we call ‘obeying the rule’ and ‘going against it’ in actual cases” (Wittgenstein 1968). Grasping a rule is not an interpretation to the extent that the usual use of the rule is available rather than needing to be transformed at the point of application. For application of Wittgenstein’s approach to law, see (Schauer 1991).

⁵⁸ Foucault’s comment on the “death” of the author implicated authors and works starting points for the interrogation of historical conditions for the appearance of “discourses” and “subjectivities,” grids of “discipline” embodying and legitimating law as an instrument of power, in practice. “Works” in this context had “authors” (that is, an author-function), and in tandem that implicated ownership and control of speech, in the marketplace and by the state. He wrote: “What, in short, is the strange unit designated by the term, work? . . . If we wish to publish the complete works of Nietzsche, for example, where do we draw the line? . . . [W]hat if, in a notebook filled with aphorism, we find a reference, a reminder of an appointment, an address, or a laundry bill, should this be included in his works? Why not?” (Foucault 2003).

building copyright-related institutions and markets. For those who look at the world in terms of social justice, boundary clarity limits overreaching by the wealthy and powerful and protects spaces where opportunity and capability can be explored.

What is unstated and merely assumed in that brief summary, and what may be sacrificed altogether as a result, suggests the limits of clear boundary definitions. The blended character of thing-ness and about-ness dimensions described earlier takes on more detailed significance via this critique. Clear, fixed boundaries are stable but static and often inflexible, meaning that they deal poorly with interests, claims, and goals that vary over time and space, that vary in intensity, that vary in clarity and completeness, and that vary in scale, among other things. Clear, fixed boundaries can be difficult to change to accommodate multiplicities of uses, of values, and of costs. Requiring standard, clear, fixed boundaries risks assuming that all creators and all customers or consumers of copyright works share commensurable (if not identical) interests in their distribution and use—that one work is in significant respects like all other works (Cohen 2000). It may be assumed that those interests themselves (whether characterized as works or as other things) can be identified and specified with reasonable precision. It may be assumed that individual interests in works can be aggregated into institutional forms and claims (formal firms, collectives, informal groups, and other assemblages) via methods that impose social costs (transactions costs, administrative costs, distributive equity) that themselves can be identified and specified with reasonable precision. Clear, fixed boundaries may make collaboration and cooperation more problematic and expensive rather than less so, particularly if the value, function, or utility of a combined resource requires more than simply adding the values, functions, or utilities of the source things to be combined. One should not assume that those interests remain essentially consistent (if not constant) throughout time (immediate uses and uses far in the future) and space (uses in this place, or this medium, and uses in other places and in other media). One should not assume that individual interests are, in general, not subject to distortion based on uneven distributions of wealth, education, training, access to information or other resources, or political or social power.⁵⁹

One way to deal with these challenges is to focus on the porosity or permeability of borders and walls as such, to give them important flexibility (e.g., McKenna and Sprigman 2017). In conventional terms, thing-ness can become less thing-like, because the discreteness or clarity of the thing's limits can be varied for policy purposes. That approach has its own limits. It focuses on one attribute of borders or boundaries but not on others, and it risks continuing to make the boundary itself more salient than what goes on adjacent to the boundary, or within it.

To put this argument affirmatively, because of the multiple dynamic functions of IP things, IP law does seek out and should seek out, appropriate dimensions of fluidity in the boundaries of the work as well as appropriate dimensions of fluidity in boundaries of copyright as a system of rights and interests. It should do so likewise in IP as a system, and so on across and up and down systems and institutions of culture and governance. It should do throughout not only to advance policy goals internal to the law of copyright (balancing the copyright owner's exclusive rights against what copyright characterizes as limitations and exceptions, for example), but also to use interpretive fluidity to more closely align the social structures implicit in copyright law with social structures that operate outside of copyright but in concert with it.

That fluidity, described more completely below, allows copyright and other IP regimes to address at least two kinds of pluralism with respect to the domains with which it is concerned. One is competing and therefore plural values and purposes with respect to any particular invention or work. Two is competing and therefore plural values and purposes with respect to the existence, definition, and scope of the domains to which IP rights and interests might apply or relate. Works are not only the sites of contests between individual claimants to the value associated with an author's creative contributions, that is, boundaries internal to the scope of copyright itself. Works are also loci of contests

⁵⁹ I put each of those statements in the passive voice in order to focus on their aggregate impact rather than on their sources.

and reconciliations among overlapping and sometimes competing social, cultural, and economic groups, institutions, and markets, that is, boundaries between copyright and culture, and between competing cultural interests. In mediating these overlaps and contests, determinate boundaries play a key role in some of the functions of copyright works, but not in all of them, or perhaps not even in many of them (see [Smith 2007](#), pp. 1751–53). Governance rules. “Law,” with its implicit and something explicit demand for clarity and specificity, may be the exception to be justified in the particular case.

Of particular interest here is the work of Leigh Star, with different co-authors, identifying the concept of the boundary object.⁶⁰ Star and co-author James Griesemer wrote:

This is an analytic concept of those scientific objects which both inhabit several intersecting social worlds . . . and satisfy the informational requirements of each of them. Boundary objects are objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use, and become strongly structured in individual-site use. These objects may be abstract or concrete. They have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation. The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds.⁶¹

([Star and Griesemer 1989](#), p. 393)

The boundary object concept frames IP things as ambiguous but interpretable objects, coded in indeterminate but determinable ways to suit the needs and interests of actors in multiple institutions (the law, the market, and circulation of things as gifts) while preserving the respective conceptual independent functions of each of those institutions. The concept does not map precisely onto immaterial objects, onto law, or onto IP domains, but its core insight, that adjacent and overlapping social worlds mediate their relationships through their uses and interpretations of shared information resources, is broadly applicable. Corynne McSherry and Dan Burk have each described the possible utility of the boundary object framework in understanding dimensions of the patent system ([McSherry 2001](#); [Burk 2007](#)). McSherry focused on oppositions expressed in the patent system between patenting, which promotes the circulation of knowledge as commodities, and exclusions from patent law, which promote the circulation of knowledge via gift exchange. In concept, that distinction may overly idealized. In practice, it is not sharp, as patent lawyers and scholars bemoan when they try to synthesize recent opinions of the US Supreme Court on patentable subject matter⁶². The very fact that criteria for patentable subject matter are specified but unclear in their interpretation and application in a particular case means that the worlds of science and commerce each can use those criteria to speak internally with but distinctly respect to concepts and meanings appropriate to that world, yet also maintain their stance engaged with and largely in opposition to the other ([McSherry 2001](#), pp. 163, 177). Patentable subject matter criteria simultaneously embody basic scientific norms as well as legal principles. The shared framework softens the edges of the idealized distinction and enables the two worlds to co-exist in acceptable but far from perfect harmony. In more recent scholarship, Dan Burk has argued that the patent document, with “its multiple associated valences,” serves as a boundary object ([Burk 2016b](#), p. 1626).⁶³

⁶⁰ The concept of the boundary object was introduced in ([Star and Griesemer 1989](#)).

⁶¹ Footnotes in the original are omitted here. On the meaning and roles of boundary objects, see ([Bowker and Star 1999](#)).

⁶² *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014); *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012).

⁶³ I would not necessarily disagree with that observation. My focus here is on copyright and specifically on the work. As I have noted throughout the article, copyright is distinctive and distinctly troublesome in the world of IP law because one of its core concepts, the work, is a text-independent interpretable thing.

The work in copyright law and practice is a boundary object within the above definition. Both the work in general and works in specific cases are things that derive from single, formally stated criteria that are interpretable in distinct ways in separate but engaged and often oppositional communities or social worlds. Notably, that proposition accommodates many of the insights of the literature on the work reviewed earlier: communities and patterns of authors and authorial intention co-exist with communities and patterns of audiences, consumers, and other interpreters. Authorial communities also co-exist with communities and patterns that establish other modes of context for the identity and circulation of works. The work as a thing and as a boundary object bridges those communities weakly in abstract terms, enabling them to collaborate, cooperate, or otherwise co-exist. The interpretive flexibility of the work allows a degree of coordinated but independent action within each community. Works are boundary objects that enable the expression of the multiple values that imbue copyright law, via their expression in patterned social life. Works as boundary objects enable social and cultural values to be sustained collectively in a legal system that typically focuses, nominally, on claims asserted by and imposed upon individuals. In other words, courts' treatment of the work in different factual and legal settings suggests strongly that the work has a weak abstract character that permits it to translate relationships between nearby communities, practices, or social worlds.

In the broadest terms, and evoking the reference earlier to market and gift exchange ([Madison 2012a](#)). I suggest defining those adjacent communities or practices largely by two paradigms of circulation of copyright things, which at times complement and at times compete with each other: market exchange and gift exchange. Market exchange, or reciprocal exchange, is the domain of the copyright owner's exclusive rights, commodities traded in public and publicly-enforceable transactions between abstracted "parties". It is defined principally by fixation (in the US), by static construction, by finality of authorship, by discreteness of objects, by consumption, by expression or specificity, by identity and sameness, and by the ideas of making and manufacture. Gift exchange, by which I refer not specifically to gifts but instead to non-reciprocal sharing, is the domain of inclusion and sharing, via successor generations; privateness, privacy, and family or other trusted groups; performance and of the public domain (paradoxically, perhaps, gift exchange may have both private and public dimensions); and exceptions and limitations with respect to the copyright owner's exclusive rights. Material is shared rather than transacted. It is characterized by fluidity and dynamism, by experience rather than consumption, by continuity of creation, by flow as well as by fixity, by idea or generality, by novelty, and by the idea of nature.

Market and gift do not signify "things" and "no things", either literally or metaphorically. Rather they signify different ways by which things are created, represented, used, transferred, and preserved ([Gordon 2004](#)).

These characterizations are, in both cases, broad and in certain respects overly broad concepts. At best they offer introductions to intersecting and overlapping poles on the broad market/gift continuum, helpful guideposts to what follows.⁶⁴ In concrete institutional settings, they must often be subdivided internally and with respect to each other, and sometimes they must be blended in complex ways. Because the work in its legal, dematerialized form is an abstract and therefore nondepletable and nonrival thing, copyright things can be in more than one place at one time. Sometimes, because of the cumulative character of much creative practice, they not only are in both places at once, but often, they must be. Copyright law requires that creative production in the work be de-composed into expression and idea. Copyright works must therefore be capable of synthesizing expression and idea—or exclusion and sharing.

These two poles capture many of the ways in which the work in copyright "works" in practice. The work (or a work) divides one kind of market economy (copyright, patent, tangible property, and

⁶⁴ For economists, some of this discussion maps onto classification of the objects of transactions as private goods, public goods, club or tolls goods, and common pool resources or goods. There is more to economic life, and more to governance, than a pure divide between public and private ([Ostrom 2009](#)).

so on) from another, and the work (or a work) divides market economies (exclusive rights in IP) from gift economies (no rights, or exceptions to IP rights). It is both possible and sensible to examine these distinctions as boundary domains both in any particular instance, that is, with respect to the treatment and characterization of any particular work as a boundary object, and in general, that is, with respect to the concept of the work in general as a boundary object. It is also possible, sensible, and even essential to examine the distinction operating in multiple ways within a given work. The point is not that some works belong in the sphere of commerce and that other works belong in the sphere of sharing, or gifts. The point is that what courts and commentators call the work is a patterned object within which, by which, and through which various attributes, functions, and symbols of cultural practice are assigned in part to individuals and in part to loosely-bounded patterns that we experience as places, spaces, times and groups.

5.3. Illustrations

I bring the point home with illustrations from US practice, examples from the case law that take the discussion from higher levels of abstraction (boundary objects, market and gift economies) to the ground level of governance in practice. Likewise, grand overarching concepts such as power, wealth, and status may be understood as relevant dimensions of this ground level view.

The illustrations form a limited set. The cases could continue. The idea is that the boundary object construct relative to the work may be used prospectively to investigate and understand any number of conflicts and concerns in copyright law and practice. Among them are a host of recognized binaries, including: form/content; expression/container; macro/micro; open/closed; original/derivative; original/copy; type/token; first-comer/second-comer; high art/low art; high status/low status; artisanal/mercantile; creative or inventive/mechanical; professional/amateur; incumbent/newcomer; possession/circulation; deliberation/spontaneity; basic/applied; platform/application; fragmented (or distributed)/concentrated; abstract/formal; informal/formal; individual/collective; intimacy/sociality; customary/positive; inside/outside; common/distinctive or unique; domestic/international; present/future; past/present. The construct can accommodate the economic and legal concept of sequential or multiple markets for distribution and consumption of the same work, based on concepts of price discrimination or other dimensions of segmenting or distinguishing consumption patterns. None of these examples must be framed formally in binary terms. Any of them can be mapped (and likely should be mapped) as a continuum. Nor are they limited to dispute resolution contexts. They are practiced in transactional settings and everyday social life. If the concept of the work as boundary object has value both in law and in culture, this long and broad list of topics is where that value gains traction.

Nonetheless, for present purposes, a small set cases involving disputes over the character of the work is presented below, each representing a distinct problem in understanding and applying the work and each signifying a potential role for the concept of the work as boundary object.

5.4. Platonism, and Original Works and New Works

A number of copyright cases begin with and then test the intuitive, naive idea of the work as a static thing, defined formally by boundaries, even if those boundaries themselves are not necessarily specified. The idea of the work in this sense is at times grounded in (or, the boundaries of the work are defined by) a sense of the Platonic or prototypical ideal of a given work, or what Paul Goldstein has characterized as the “*ur-work*” (Goldstein 2011, pp. 1182–83). Copyright in these contexts attaches to a canonical version of the work. For purposes of infringement by substantial similarity, or for purposes of identifying a creatively distinct derivative work, the second work is compared with its canonical predecessor. Character copyrights are particularly subject to this problem and to the Platonic-work-based solution, both where the copyright attaches to a fictional character as such as well as to a particular graphic representation of that character. What appears to be happening in these cases is management of markets by the work as boundary object.

A character representation case illustrates. In *Entertainment Research Group, Inc. v. Genesis Creative Group, Inc.*,⁶⁵ the defendant was accused of infringing the plaintiff's copyrights in three-dimensional costume versions of famous advertising cartoon characters, such as the Pillsbury Doughboy, Geoffrey the Giraffe, and Cap'n Crunch. The copyrights were valid, if at all, if the costumes constituted derivative works, that is, original adaptations of the underlying, two-dimensional copyrighted characters. The Ninth Circuit Court of Appeals decided that the costumes were not derivative works. Any variations between the two-dimensional and three-dimensional versions of the characters were dictated wholly by functional considerations rather than creative judgments. Each character copyright related not to its particular physical manifestation but instead to a single canonical creative work, which was then represented in any number of forms and media—including both two-dimensional and three-dimensional versions. The court noted:

[N]o reasonable trier of fact would see anything but the underlying copyrighted character when looking at ERG's costumes . . . [B]ecause ERG's costumes are "instantly identifiable as embodiments" of the underlying copyrighted characters in "yet another form", no reasonable juror could conclude that there are any "non-trivial" artistic differences between the underlying cartoon characters and the immediately recognizable costumes that ERG has designed and manufactured.⁶⁶

This kind of clean division between work and copy, or content and form, is the purest version of the work in legal action.

The point of the bounded work here is not to define the work in the abstract. The boundary is not solely inward-looking (what is the content of the work?); it is outward-looking. The work is defined relative to its context, which here means its business or market context. That perspective begins with the standard question, what is the distinction between this work and the accused work? It continues: What is the role of this work in the context of other works, either similar (or dissimilar) narratives that feature the character work, or sequels and other adaptations of the original narrative work. A single film or novel may turn out to contain numerous works: the narrative or principal plot, undisclosed or partially disclosed but emergent sub-plots, the principal characters, and descendants, dependents, and new versions of those characters. Yet none of those must be separately identified as a work when that initial film or novel is created. None of them has a pure or Platonic form either initially or later. Added works, or variations on the same work, usually emerge as the initial product is commercialized—or pirated.

The concept of the work here serves multiple purposes. The first is obvious: to identify a boundary between sameness or identity, on the one hand, and the changed and the new, on the other hand. Or, what is "mine" (referring to the copyright owner) and what is "other"—that is, ours, or no one's. On one side of the line (identity) lies copyright infringement. On the other side (difference) lies a new work, or perhaps nothing (that is, no thing) at all. The second, perhaps more important purposes, are to divide the copyright market defined by the work as marketable commodity from the rest of culture, where changed versions of the work are freely shareable, and to bound the copyright market defined by the initial work from copyright markets defined by other versions of that work or by adaptations or excerpts from that work. (In themselves, those may be distinct works.) The work constructs the market in general, and distinct and different markets in particular. It defines the author's market and existence of domains beyond that market, which may in turn be defined and organized in terms of distinct markets (each distinguishable variation on a source work may become a new, marketable work) or not (so that each distinguishable variation is, in effect, un-owned). With each new commodity comes a new market or markets, institution, or set of practices, each bounded lightly and, given the

⁶⁵ 122 F.3d 1211 (9th Cir. 1997).

⁶⁶ 1222 F.3d at 1223. The court is quoting *Durham Indus., Inc. v. Tomy Corp.*, 630 F.2d 905, 908–09 (2d Cir. 1980).

necessarily somewhat loose understanding of the idea of a market (Lemley and McKenna 2012), by the work itself.

5.5. Incomplete Works: Authors and Institutions

The concept of the work can tell us when a work is a “work” worthy of copyright contemplation, or is instead a draft, sketch, or idea. In this sense, the work defines the trigger of copyright. Before something becomes a work, copyright law does not apply; the material is preliminary and therefore freely shareable, used and experienced. Justin Hughes pursues a version of this reasoning when he argues that copyright law should not protect “microworks,” which he defines as very small pieces of creative expression, because they are not works (Hughes 2005). In a related sense, a creative thing may emerge as a work from early or unformed effort. In doing so it crosses a kind of copyright boundary, from copyright irrelevance to copyright relevance. As a boundary object, a copyright work sits at an intersection between complete control of the thing vested in its creator, in the first domain, and governance of the thing managed by a complex that includes not only the creator but also other individual, institutional, and collective interests, in the second.

An art world case illustrates. In *Massachusetts Museum of Contemporary Art Foundation, Inc. v. Büchel*,⁶⁷ the plaintiff Christophe Büchel was a conceptual artist who commissioned the defendant, the Massachusetts Museum of Contemporary Art (MassMoCA), to install a large, complex, and expensive conceptual sculpture. MassMoCA agreed to bear the expense of the installation. The parties’ contract failed to provide sufficient detail regarding the project’s final scope. During installation, Büchel made substantial changes to its scope. Fearing that it would never recoup its installation expense via admission charges or otherwise, MassMoCA eventually suspended additional effort and opened the incomplete installation to public viewing. MassMoCA included signage making it clear to patrons that the sculpture on display was not the completed work of the artist. Büchel nonetheless sued, both under the relevant provisions of the Visual Artists Rights Act (VARA), Section 106A of the Copyright Act,⁶⁸ for violations of his rights to integrity and attribution and also under the public display portion of Section 106 of the Copyright Act.

With respect to both claims, MassMoCA argued that Büchel had not proved the existence of a work that triggered any obligations under copyright law. As Büchel himself acknowledged, from the artist’s point of view the work of art here consisted of a specific kind of patrons’ visual and physical experience of the creation (The ART Law Blog 2007). To MassMoCA, the presence or absence of a work was a kind of jurisdictional boundary. Until an author is done creating, copyright law is irrelevant.⁶⁹ On this reasoning, an unfinished sculpture is not a work. The district court agreed, but the First Circuit Court of Appeals did not. The latter court relied on the copyright statute’s definition of “created,” which applies to unfinished works.⁷⁰ It held that Büchel’s work fell within the scope of VARA as a “work of visual art”.

Form matters, one might simply say. The appellate court’s interpretation of the statute almost certainly is incorrect if the idea of the work is to be independent of fixation, and if there is any jurisdictional boundary between creativity to which copyright attaches and creativity that lies outside of it. Of course, such a boundary may not exist, and in that event the court was correct after all. Cases on protection of “small” works, some of which started (and remained) small and some of which were small slices of larger creations, are divided. In some cases, any evidence of an author’s creativity, no matter how small or preliminary, justifies copyright protection. The salient cases come from the arena

⁶⁷ 593 F.3d 38 (1st Cir. 2010).

⁶⁸ 17 U.S.C. § 106A (2016).

⁶⁹ Before the 1976 Copyright Act took effect, this was indeed the case. With few exceptions, copyright applied only to published works.

⁷⁰ 17 U.S.C. § 101 (2016) (defining “created”). The statute clearly applies to things that are completed in pieces, such as movements of a symphony or articles of a novel. It is less clear that the statute applies, or should apply, to every successful stroke of a pen or brush.

of digital technology. In *Tin Pan Apple Inc. v. Miller Brewing Co.*,⁷¹ a district court declined to hold, as a matter of law, that the defendant's digital sampling of the lyrics "Hugga-Hugga" and "Brr" from the plaintiff's copyrighted recording constituted copying of noncopyrightable material. If a single guttural syllable may constitute a work, then it might be said that anything may constitute a work. Some courts resist that conclusion. In *Newton v. Diamond*,⁷² the court concluded that unauthorized copying of a six-second, three-note sequence of the plaintiff's musical composition appropriated a part of the plaintiff's work that was simply too small to matter.⁷³ In *Cartoon Network LP, LLLP v. CSC Holdings, Inc.*,⁷⁴ the supplier of digital video recording (DVR) services was held by the Second Circuit Court of Appeals not to have infringed the plaintiff's copyrighted audio-visual works, where the copies made via the DVR technology were stored for 1.2 s apiece. These were whole copies, but brief copies. Neither of these cases turned on the idea of the work itself, but the idea of the work as a boundary, between creativity that matters for copyright purposes and creativity that does not, seems very much to have animated the courts' judgments.⁷⁵

The boundary management going on in all of these cases, but especially in *Büchel*, is not merely a boundary of form. The fact that Büchel sued under VARA, the limited version of moral rights protection available under US copyright law, suggests that more was going on in the case, and that more was at stake with the work, than the functional delineation of the author's economic rights according to the presence or absence of a work. The work as boundary object manages intersections between the practices and expectations of artists and authors, on the one hand, and the practices and expectations of other claimants and institutions, on the other. That boundary exists in at least two senses. First, from a moral rights standpoint, a work—Büchel's work—bears the imprint of the author himself or herself (Borghi 2007). It might be said, metaphorically, that the boundary defined by the work represents the boundary between the author as a whole person or personality, on the one hand, and a non-person, or the undifferentiated world of readers, viewers, and listeners, on the other. Before a collection of materials reaches the status of "work," that collection is simply stuff, at most the subject matter of chattel property law, but nothing more. To recognize a work in Büchel's sculpture was to recognize Büchel himself. This kind of boundary is present in other non-VARA moral rights cases in the U.S., notably *Gilliam v. American Broadcasting Companies*⁷⁶, in which the integrity of the work *qua* work stands in for the integrity of the authors themselves.

The work is a boundary object here in a second sense. Also present in the work are the interests and claims of the institutions of the art world, embodied in the particular case by MassMoCA. Curators, museum directors, board members, investors, donors, and museum patrons all have interests in the collection, curation, and presentation of the art works that make up each museum's collection. Those interests, and legal and normative duties that accompany them, attach when works are formally part of the museum's collection and not before. Many of those interests are represented legally and normatively in property terms. Art institutions are bound not to deaccession works of art from their

⁷¹ 88 Civ. 4085 (CSH), 1994 U.S. Dist. LEXIS 2178 (S.D.N.Y. Feb. 23, 1994).

⁷² 388 F.3d 1189, 1195 (9th Cir. 2004).

⁷³ *Newton* also illustrates a different kind of boundary, between the domain of musical composition, or songwriting, and the related domain of performance and recording. The defendants, the celebrated rap group the Beastie Boys, used a sample of a recorded flute performance by the noted flutist James Newton. They had cleared the rights to the recorded performance of Newton's work (owned not by Newton but instead by ECM Records) but had not cleared the rights to the underlying musical composition. The three-note sequence from the composition that the court dismissed as unworthy of copyright was arguably quite creative, but only in its performed, recorded version. Art forms closely bound up with performance, such as music, drama, and sport, are filled with copyright works that can be productively analyzed as boundary objects. As in *Newton*, some dimensions of these fields are recognized culturally as copyright works. Many are not.

⁷⁴ 536 F.3d 121, 127 (2d Cir. 2008).

⁷⁵ In *Cartoon Network*, the court's analysis turned on the question of whether the copies of the television programs stored by the defendant constituted one work ("performance," in the language of the relevant statute), produced by the copyright owner, stored in multiple copies, or multiple performances, each stored once at the request of the DVR subscriber. The court followed the latter path, in effect equating a work with a copy. The US Supreme Court followed a different path in *American Broadcasting Companies, Inc. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014), as discussed earlier.

⁷⁶ 538 F.2d 14 (2d Cir. 1976).

collections except under specific circumstances. Museums and their agents may not act purely in market terms. Having accepted these works as gifts, in many cases, museums undertake to care for them in part according to a trust relationship with society as a whole (Chen 2009), a relationship that aligns these institutions with the norms of gift exchange. Once a gift, always a gift, in a manner of speaking. To convert a gift into a marketable commodity is to violate the norms of gift-giving. When a work becomes formalized in the collection of a museum, the author's interest is not erased, but it is recontextualized in the context of the institution. The concept of the work in *MassMoCA* and in the context of the art world in general permits those two communities—artists, on the one hand, and art institutions, on the other hand—to interact constructively, if not always without disagreeing.

5.6. Fixity: Objects and Works

In each of the first two illustrations, the work as boundary object in effect keeps some material and things inside copyright, and therefore inside the world of markets, commodities, and exchange, and excludes other material, leaving it either to the world of non-copyright institutions, such as markets for chattel property, or art institutions, or to no markets at all. The point of the boundary object construct is that this divide is at best fluid rather than absolute. It may be exclusionary with respect to material challenged in a particular case, or it may be inclusionary.

Software licensing provides one of the clearest examples of this boundary principle in action via the copyright work. Software producers have learned to draft their license agreements in ways that permit them to capture copyright-based ownership of copies of their works as objects, knowingly conflating the modern copyright distinction between the copyrighted work and the tangible copy (Madison 2003). The result is that consumers of copies of copyrighted computer programs acquire their copies as mere “licensees” rather than as owners. The practical impact can be dramatic. “Licensees” do not have the same power as owners to re-sell copies of copyrighted works in their possession. For example, in *Vernor v. Autodesk, Inc.*,⁷⁷ the plaintiff bought several packages (tangible copies) of high-priced copyrighted computer software produced by the software developer Autodesk. He bought them not from Autodesk but from customers of Autodesk, and in this declaratory judgment action he sought confirmation of his right to re-sell the packages free of the resale restrictions that Autodesk imposes on its direct customers as part of the license agreement that accompanies each copy of Autodesk's products. That is, the plaintiff argued that he was an owner of his copies of Autodesk's software and was privileged to re-sell them under the doctrine of first sale,⁷⁸ despite Autodesk's exclusive right to distribute copies of the work under Section 106(3) of the Copyright Act.⁷⁹ The district court agreed with the plaintiff, but the Ninth Circuit Court of Appeals reversed. Vernor, the plaintiff, did not own his copies because the Autodesk customers who sold their copies to him were not, themselves, owners. They were licensees, not entitled to the benefit of the first sale doctrine.

The crux of the case was Autodesk's (and the court's) blending of the idea of the work and the idea of the copy in the license agreement that Autodesk included with each package. As the court described the agreement between Autodesk and its customers, the agreement

recites that Autodesk retains title to all copies. Second, it states that the customer has a nonexclusive and nontransferable license to use Release 14. Third, it imposes transfer restrictions, prohibiting customers from renting, leasing, or transferring the software without Autodesk's prior consent and from electronically or physically transferring the software out of the Western Hemisphere. Fourth, it imposes significant use restrictions . . . ⁸⁰

⁷⁷ 621 F.3d 1102 (9th Cir. 2010).

⁷⁸ 17 U.S.C. § 109(a) (2016).

⁷⁹ 17 U.S.C. § 106(3) (2016).

⁸⁰ 621 F.3d at 1104.

The text of the agreement, as quoted elsewhere in the opinion, makes clear that the agreement pertains to the Autodesk computer program (“Release 14”), sometimes referred to as “the Software” (the particular version or release of a particular Autodesk program) (p. 1104). If one applies the copyright distinction between the work and one or more copies that embody the work, to which does the license pertain? Is Autodesk licensing the work, or the copy? The history of software licensing teaches that licensing the copyright in *the work* was originally the goal of software developers, to control the use of the work by customers who would otherwise be able to exploit the work by reproducing it in unexpected ways and settings (Madison 2003, pp. 310–16).

Autodesk’s license, like many modern software agreements, is not so narrowly or carefully drawn, and the court simply failed to ask whether “the Software” referred to the work or to the copy. If the agreement were construed as referring to the work, then Vernor, the plaintiff, would have been on relatively safe ground. Autodesk’s customers would have been “owners” of their copies and therefore entitled to re-sell those copies to Vernor, who could re-sell them again. The court assumed, instead, that the agreement referred to both the work and the copy. The idea of the work was not given an opportunity to perform the limiting function that it might have done. Instead, the idea of the work expanded the rights of the copyright owner. Autodesk and other software companies were given the power to control resale markets for copies of their works in ways that few other manufacturers can, and in ways that are strikingly inconsistent with the operation of resale markets for copies of virtually all non-digital copyrighted works.⁸¹

To be fair to Autodesk and the software industry, drawing a classic distinction between the work and the copy in the context of digital products is difficult, even if the copyright statute specifies different legal rights with respect to each one (or, perhaps, because of that fact) (Borghi 2007).⁸² What a boundary between work and copy would mean in the digital context is a hugely problematic question. The work is by definition an intangible, an abstraction. For all practical purposes a digital product (whether a computer program or a digital version of some other creative work) is likewise an intangible, an abstraction.⁸³ For an analog copy of a work, the distinction between the work and the copy is the distinction between thoughts (work) and atoms (copy). Physics determines the identity of the copy, for a person can touch the copy (or see it, or hear it). For a digital “copy,” the distinction is wholly arbitrary. The copy can be touched (or seen, or heard) but nearly always under circumstances that reinforce the intangible character of the work. Although a computer program resides in computer memory, which means that some physical substrate for the program resides somewhere, it progresses to human experience and understanding only via the application of other computer programs. Intangibles operate on intangibles in ways and in places that correspond poorly even to our experience of works reproduced or interpreted by analog technologies, such as print, or sculpture, or film-based photography.

At the least, with computer programs the difficulty in distinguishing works and copies leads to an enormous amount of analytic confusion. At worst, it leads to conflating the scope of legal rights attached to works and to copies.⁸⁴ In a particular case, such as *Vernor*, the boundary object that

⁸¹ See, e.g., *Impression Products, Inc. v. Lexmark Int’l Inc.*, 137 S. Ct. 1523 (2017) (applying the doctrine of exhaustion to patented articles sold abroad by the patentee); (United States Court of Appeals 2013) (applying the doctrine of first sale to copies manufactured abroad with the permission of a U.S. copyright owner, and re-sold in the U.S.); *UMG Recordings, Inc. v. Augusto*, 628 F.3d 1175 (9th Cir. 2011) (addressing re-sale rights regarding promotional copies of compact discs). The doctrine of first sale in American copyright law is closely related to the concept of exhaustion, which has been held to apply to copies of computer programs distributed in the European Union. *UsedSoft GmbH v. Oracle International Corp.* [2012] EUECJ Case C-128/11 (ECJ).

⁸² A computer program can be reduced to its digits—the particular sequence of 1s and 0s that constitute its binary form—but that binary or executable copy no more defines the limits of the work embodied in that program than the words of a novel define the limits of the novelist’s copyright.

⁸³ “New materialist” scholarship points out the inescapable physicality of information technology, at deeper layers than those of immediate experience and perception (Burk 2016a, p. 44).

⁸⁴ In the so-called digital “space,” the boundary between work and copy has an important additional dimension in the context of the anti-circumvention provisions of the Digital Millennium Copyright Act (DMCA). The term “work” is used twice,

comprises the work may be a matter of the author's unilateral designation, the purchaser's or owner's appropriation, or public policy. From the perspective of distinctions between tangible things and intangible works, what works and material are within the copyright system, and what lies beyond it, is nearly impossible to determine in general and can be processed in the particular case, using the concept of the work itself, only with great difficulty.

5.7. *Multiplicity: One Work or Many Works*

In the context of partially completed art works, I argued earlier that the concept of the work at times expresses what might be called a finality interest, or a boundary between a continuing process on the one hand, in which the author or others wait until after the fact of creation to determine what is and what is not a work, and a finished, even independent, product, on the other hand. Yet courts do not consistently apply a principle that bars changes to the identity of a work after the act of creation is complete or that forces a copyright owner, or anyone else, consistently to choose one characterization or another. There are additional boundaries between the unit and the whole and between the author and the audience. Giving full rein to authorial interests in the work suggests that the author should have unlimited or nearly unlimited discretion over the characterization of his product, at almost any point in the life of the product, whether for marketing and commercialization purposes, for infringement purposes, damages purposes, or some combination of these. When a creative product is released into the world, some number of copyright works are released with it, and as part of it. The balance of that material is shared with the audience without copyright protection attached.

To illustrate, consider the copyright status of a multi-episode television series. That series may be characterized as a single copyrighted work, because its plots, characters, settings, and themes carry over from episode to episode, and if so the work remains the same even if new episodes are produced. Or that series may be characterized as a sequence of episodes, each of which constitutes a separate work. A record album or compact disc (CD) is likewise both a single work and a compilation of underlying individual songs, each of which is a work. Parts of the boundary object are inhabited by commercial markets for the series and/or for each episode (and, correspondingly, for the full album or CD and/or for each individual song). Other parts are inhabited by public access to and reuse of elements that do not comprise the series as a whole (if that is judged to be a work) or any particular episode (which might also or alternatively be considered a work). Any creative thing not only might be combined with other creative things to form a single compilation or collective work, and it might be de-composed into subsidiary things that might themselves be treated as works. Those subsidiary things might themselves be de-composed into further works, or combined with other things to form other compilations or collections. In each transition, the potential for dis-assembly and

in both parts of the statute, but refers to different things in each place. In Section 1201(a), prohibiting circumvention of technological protection measures that control access to a work, "work" appears to refer to a particular material copy of a work. In Section 1201(b)(1)(A), prohibiting trafficking in technology that is intended to be used in circumvention rights control measures with respect to a work, "work" appears to refer to the intangible work of authorship to which the copyright owner's rights attach. For extensive discussion and confusion on this point, see *MDY Industries, LLC v. Blizzard Entertainment, Inc.*, 629 F.3d 928, 944–48 (9th Cir. 2010), opinion amended and superseded on denial of rehearing by *MDY Industries, LLC v. Blizzard Entertainment, Inc.*, 2011 WL 538748 (9th Cir. Feb 17, 2011). The Federal Circuit's construction of these sections tries to harmonize them, in a way that is not motivated by a single reading of the term "work" but that offers the advantage of that term's being used consistently in both Section 1201(a) and Section 1201(b). See *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004) (requiring that the plaintiff in a case alleging violation of Section 1201(a)(2), trafficking in technology used to obtain unauthorized access to a protected work, prove that use of the technology had some nexus to infringement of a copyright). *Chamberlain Group* implicitly relies on the work to soften the boundary between DMCA claims and the Copyright Act. *MDY Industries* implicitly relies on the work to harden that boundary. In *MDY Industries* itself, the Ninth Circuit Court of Appeals found the defendant liable under Section 1201(a)(2) for trafficking in technology designed to facilitate circumventing access to a copyrighted work. The court concluded that the relevant technology facilitated access to parts of the plaintiff's online videogame that consisted of its "dynamic non-literal elements," characterized by the lower court as the "real-time experience of traveling through different worlds, hearing their sounds, viewing their structures, encountering their inhabitants and monsters, and encountering other players." 629 F.3d at 943. The tension in that definition between the idea of the intangible work of authorship and the tangible form in which the work is embodied, even characterizing the latter as an "experience," is palpable.

re-formation of the initial item creates an opportunity for the work as boundary object to mediate among controlled exploitation of the work in one or more markets and public or other use not governed by copyright limits.

Courts have used the work as this sort of boundary object both in statutory damages calculations and in infringement settings. The US copyright statute's statutory damages provisions require that damages for infringement be computed according to the number of works infringed, rather than the number of infringements or the number of copies produced by the infringer.⁸⁵ Cases having to do with works comprised of other works, that is, compilations or collective works, cause problems. In *Bryant v. Media Right Productions, Inc.*,⁸⁶ the court computed statutory damages in a case involving infringement of a copyrighted record album by treating the entire album—a compilation—as a single work, rather than as a collection of separate (and therefore compensable) works. The statute itself says that a compilation work is to be treated as a single work for purposes of assessing statutory damages.⁸⁷ Should the album have been treated as a compilation work? A significant factor in the court's decision was the fact that the copyright owner had registered the album with the Copyright Office as a compilation and had sold the compilation as an album. Because the owner had made that choice in the first place, despite registering copyrights in at least some of the individual songs, the court in effect barred the owner from having a second bite at the characterization apple when infringement and damages, rather than registration and marketing, were at issue.

Focusing on the album as such tends to reduce the amount of damages recoverable by a successful plaintiff. In the current era, when recorded music is often sold on a song-by-song basis rather than on an album basis, focusing on the album may discount the actual economic injury caused by the infringement. A record album that contains eight songs is a work in the same statutory sense as a record album that contains ten or twelve songs, even though the economic value of the two works might be different. The plain reading of the statute in *Bryant* strikes some as indifferent to the logic of copyright markets and unfair to authors. Other courts have looked to an “independent economic value” standard—a third-party or audience perspective—for determining whether something is a work. In *Columbia Pictures Television v. Krypton Broadcasting of Birmingham, Inc.*, the defendant had infringed several copyrighted episodes of a television series. For statutory damages purposes, the court determined that each episode should be treated as a separate work, because each episode could be treated as an independent economic unit.⁸⁸ The episodes were generally packaged by the copyright owner as a series for purposes of broadcast television deals. The plaintiff's economic injury therefore corresponded more closely to treatment of the series as a single work. The rule of *Bryant* runs the risk of under-compensating copyright owners. The rule of *Columbia Pictures Television* runs the risk of over-compensating them.

The rule that a “whole TV series is a single work”, rejected in the damages context by *Columbia Pictures Television*, was accepted in the infringement context in *Castle Rock Entertainment, Inc. v. Carol Publishing Group, Inc.*⁸⁹ The Second Circuit Court of Appeals in *Castle Rock Entertainment* determined, with little discussion, that the entire *Seinfeld* television series should be treated as a single work when compared with the defendant's infringing *Seinfeld* trivia book. The case is justly criticized for using an unduly elastic concept of the work in order to capture a work published by the defendant that many believe should have been characterized as noninfringing, either because of a lack of similarity in the first place, or because the defendant was engaged in fair use, or both (e.g., [Tushnet 2004](#), pp. 544–45). The critique misses the point that the context of the work as such defined the boundary between

⁸⁵ 17 U.S.C. § 504(c) (2016).

⁸⁶ 603 F.3d 135 (2d Cir. 2010).

⁸⁷ 17 U.S.C. § 504(c)(1) (2016).

⁸⁸ See also *Twin Peaks Productions, Inc. v. Publications Intern., Ltd.*, 996 F.2d 1366 (2d Cir. 1993) (holding that infringement of eight episodes of a television series should be treated as infringement of eight independent works, or eight independent marketable things, when assessing statutory damages).

⁸⁹ 150 F.3d 132 (2d Cir. 1998).

control of the creative content allocated to the copyright owner, on the one hand, and free re-use of that content allocated to the accused infringer, on the other hand. The defendant's trivia book appropriated specific bits from specific episodes of the *Seinfeld* show, including identities of both major (recurring) and minor (non-recurring) characters, character traits, plot points, props, sets and settings, costumes, and so on. Each bit was arguably an unprotectible fact about an episode or about the series as a whole, that is, not a work. In the aggregate, the bits added up, in the court's judgment, to a substantially similar copy—an aesthetically and commercially similar copy—of the series taken as a whole. That is, the plaintiff's work.

At least one recent, notable case has reached what might be considered a different conclusion on similar facts. In *Warner Bros. Entertainment Inc. v. RDR Books*,⁹⁰ the defendant stood accused of infringing copyrights in J.K. Rowling's several Harry Potter novels by creating a print version of a "Lexicon," or encyclopedia, that catalogued plot points, characters, beasts, settings, spells, and other attributes of the novels in excruciating detail. The district court treated the Harry Potter novels as a single source for purposes of the infringement analysis, although it repeatedly referred to the novels as distinct works. It appeared to judge the Lexicon to be noninfringing under the fair use doctrine⁹¹ with respect to the novels themselves though infringing by virtue of its reproduction of an excessive amount of separate and specific Rowling companion works.⁹² The court determined that the Lexicon was in effect a reference work, rather than an aesthetically or commercially similar version of the Harry Potter series. Its opinion is ambiguous, perhaps deliberately so, on the question of the identity of the work that the Lexicon was alleged to have infringed. Individual entries in the Lexicon matched individual items in the series. Only in some instances involving more elaborate and detailed summaries of certain plot elements did those items rise to the level of copyrightable works, potentially infringed by the defendant.

In the sense of this article, that the idea of the work is a boundary object mediating the interests of different practices and their practitioners, the court's judgment in total is suggestive evidence that the concept of the work is doing just that. The copyright work created by J.K. Rowling and owned by Warner Bros. contains both portions limited and controlled by them, as well as portions given, in effect, to those who would create encyclopedic companions. The court in *Warner Bros.* suppressed making an explicit decision regarding the identity of the relevant plaintiff's work. In doing so, it expanded the ability of an accused infringer (that is, a downstream creator, or new author) to practice creativity by producing a reference work.

5.8. *Made, Not Found: Manufactured Works, Natural Ideas*

Works may be characterized in different ways at times and over time, but the concept of the work in any particular instance is also something that remains fundamentally the same. This is true both in the general sense that the concept of the work is usually meant to be the same across artistic disciplines, media, and eras and in the specific sense that once a work has been created, it cannot change. Conventionally, we assume that the work itself is static, even if the law permits authors, courts, and others to re-characterize what it is. Of course, things change. Art changes. Do works change?

Courts wrestle in this sense with the idea of the work as a boundary between static and stable works, on the one hand, and dynamic and changing works, on the other hand. Let us call this a boundary between creative form and creative flow, sometimes expressed as a boundary between culture and nature and as copyright's distinction between idea and expression. For an illustration, consider a recent case involving gardens and landscapes.

⁹⁰ 575 F. Supp. 2d 513 (S.D.N.Y. 2008).

⁹¹ 17 U.S.C. § 107 (2016).

⁹² 575 F. Supp. 2d at 549-51.

In *Kelley v. Chicago Park District*,⁹³ the plaintiff, without question an established and successful artist, designed an elaborate public flower garden with the permission and participation of relevant public authorities. After a long period of maintenance of the garden and then disputes between the designer and the owner of the garden space, the owner, the Chicago Park District, made substantial modifications to the garden over the objection of the designer. The designer, claiming that the landscape design was an original work of authorship protected in copyright, sued for violations of the right to integrity of the work under the Visual Artists Rights Act. Among the questions faced by the court was whether the designed public garden was a “work of visual art,” or a work of any kind, covered by the statute. The Seventh Circuit Court of Appeals, rejecting the plaintiff’s claim, concluded that it was not, although for reasons related to the manner in which the parties framed the issue, the case did not decide whether or not it was a work. The court began by accepting (as the parties had) that the landscape design consisted of conceptual art, that is, a painting or a sculpture, the categories of copyrightable expression that it most resembled and then considered whether that work met the requirements of the statute as to originality and fixation.

Did the work meet those requirements? The court concluded that it did not. The court worried that copyright here was asked to recognize a work that was “infinitely malleable”⁹⁴ The court concluded (in a questionable bit of reasoning) that the garden did not rise to the level of originality or stable fixation required by the law, because the living garden was subject to inevitable changes over time, and the changes were not the product of the plaintiff’s authorship.⁹⁵ While the court itself gave little weight to idea of the work itself aside from the statute’s other subject matter requirements, originality and fixation, a boundary principle was in play based on the idea of the work defined by subject matter tests, not by the idea of the work as an independent, autonomous thing.

In dicta the court expressed skepticism that the plaintiff’s landscape design should be treated as a painting or a sculpture, that is, that the design should be treated as a work in the first place. Were the opinion to be reconstructed along more sensible lines, one would argue that the landscape design was neither a painting nor a sculpture, nor “like” either of those things, and failed to constitute a work. Originality, expression, and fixation might be found wanting, and their absence given as reasons to support this hypothetical judgment. In other words, the key point implicit in *Kelley* is that an author’s originality and expression might be present, and fixation might be found, yet a copyrightable work might still be absent. To support the case for the defense, one could analogize the landscape design not to a painting or to a sculpture but instead to an elaborate meal prepared by a trained chef. The chef, we know, is a kind of creator, working with natural and prepared ingredients, blending them in original and even expressive ways, anticipating their interaction with natural processes (such as heat and cold), and “fixing” the result in the form of the meal as presented at table. Yet it is widely understood (though not without some controversy (Buccafusco 2007)) that neither the chef’s techniques, the chef’s recipes, nor the resulting meals are protected by copyright.

My reconstruction of what the court might have been trying to do suggests that there is more to the boundary problem here, and more utility to understanding the case in terms of boundary objects, than the record allowed the court to address. The court wrote: “The Park District suggests that Wildflower Works is an uncopyrightable ‘method’ or ‘system’.”⁹⁶ It continued: “Although Wildflower Works was designed to be largely self-sustaining (at least initially), it’s not really a ‘method’ or ‘system’ at all. It’s a garden.”⁹⁷ Gardens are designed and tended by communities and practitioners of what we might imagine to be the “landscape arts”, consisting of some who operate primarily via their imaginations (interacting with the domain of creative abstractions), some who work primarily via

⁹³ 635 F.3d 290 (7th Cir. 2011).

⁹⁴ 635 F.3d at 301.

⁹⁵ 635 F.3d at 303-04.

⁹⁶ 635 F.3d at 303.

⁹⁷ 635 F.3d at 303.

their hands (interacting with the natural world), and some who work with both in more or less equal parts. The court in *Kelley* signaled that it understood the case to involve a matter of natural matter, not a matter of creative imagination.

Unpacking the court's last statement ("It's a garden"; therefore, by implication, it cannot be a work), here as in the cuisine example above, the work operates as a boundary object that lies between yet connects static works and dynamic things, between static things and dynamic "processes" or "systems," and between the static created work and the dynamic natural idea. Traditional copyright law and its focus on the independent, intangible creative thing contrasting with deeper, organic processes that are revealed by nature, even while both perspectives themselves are literally and physically present in one and the same place and space, that is, landscape design and gardens. The logic of that statement quite purposely reverses the polarity of the philosophical arguments that "naturalized" the work in the first place, during the 19th century, as essentially "organic" products of the author's imagination (Biagioli 2009, p. 241). The court's answer to the challenge of distinguishing between manufactured things and natural phenomena—"[i]t's a garden"—is clearly inadequate, because it simply re-states the issue. Why is a garden not a work? A work *qua* work is communicative and expressive, not simply functional. A work expresses the author's creativity and the audience's response. A work communicates the fact that humans produced it; human creators communicate via works (Drassinower 2015). Anything else—plants, flowers, animals, and prepared food—communicates (or *may* communicate) the fact that organic processes are primarily driving what we see and experience.⁹⁸ Nature is *given*, both in the sense that it simply exists in a sort of pre-cultural state, and also in the spiritual or religious sense that nature is a *gift* from someone or something other than ourselves. Earlier I referred to works as boundary objects that may frame distinctions between material that circulates in market-based economies and material that circulates in gift-based economies. My identifying nature with the idea of *gifts* is meant to evoke that same distinction. Inarticulately and ambiguously, the court in *Kelley* used the concept of the work to divide the world before into precisely those two realms.

Gardeners and chefs know, of course, that what appears to be "natural" often reflects deep and thoughtful engagement by humans. The vocabulary of giving is far from univocal. We may say that we receive gifts (from God, from nature, from others), and that we have gifts (such as special skills) and that we share both. Often, the conceptual linkages embedded in those phrases go unrecognized and unexplored, as do linkages between gifts and agency. Characterizing nature as a gift and as a source of gifts does not necessarily exclude human agency. To exclude the social worlds and patterns of practice that we call "gardening" and "cooking" from copyright amounts not only to excluding the effort and ingenuity of a particular author but also the practices, traditions, and expectations of an entire field. That field may be human-directed and cultural. That field may be scientific and technological. That field may be spiritual and only partly known or knowable by humans. The work in the case of natural things and processes is the locus of a debate about what is in copyright and what is beyond it, or about what is created, owned, and marketable and what is *given* and shared. The boundary established by the work and identified by *Kelley* in the court's quick, dismissive statement is the contested boundary between the owned, controlled "creative," or made, which is commodifiable and merchantable, and the unownable, evolving natural, which is a gift and a source of gifts.

6. Conclusions

Looking at things in law as material, immaterial, and conceptual objects, the article has moved beyond the intuitive, naïve question that seeks to understand "what is a thing?", and instead has explored how things constitute governance. Broadly, the inquiry has asked how we organize social

⁹⁸ This distinction evokes the principle of patent law that "laws of nature" may not be patented. See *Mayo Collaborative Services v. Prometheus Laboratories*, 566 U.S. 66 (2012).

and cultural life via things and law, and how should we do so? Narrowly, the illustration and case at hand is the work in copyright law. What roles does the work play in law and culture? What is the normative work? The press of technological change appears to make these questions less urgent. The article suggests instead that because of the conceptual character of the questions, the challenge is to understand how legal things continue to function effectively despite rapid technological change.

The conclusions drawn in this article are simultaneously narrow and broad. In narrower terms, the article concludes that the work, as the key “thing” of copyright, exists as a pragmatic object rather than an ontologically “real” one that performs multiple roles in copyright theory, legal doctrine, and commercial and cultural practice. The thing-ness of the work (its edges) and the about-ness of the work (its content) blend, in various ways. Sometimes clarity, consistency, and specificity is expected and desirable. At other times dynamism, fluidity, and elasticity is the better view of the work. Those multiple functions and values of the work are held together via its expression as a so-called boundary object. That boundary object is a shared conceptual thing that permits adjacent and overlapping communities of practice and expectation to interact in social ecologies via their orientation to a shared thing, yet retain their conceptual and functional independence. Illustrations and applications of that idea are derived from contemporary US copyright experience.

The article does not make a case for law reform, and it argues quite directly against efforts to re-introduce strong senses of thing-like, well-bounded clarity or definition to the idea of the copyright work in general or in a specific setting. Yet the work, as such, matters nonetheless. My aim has been to explore and to highlight the respective roles of things and of groups in a body of law that is often conventionally framed in terms of relationships alone, and specifically in terms of relationships between individual agents—an author or creator, on the one hand, and a reader, or consumer, or new author or creator, on the other. Those roles can and should be characterized in terms of boundaries, both in pragmatic terms in general and even in specific settings such as resolution of specific copyright disputes. Importantly, the idea of boundaries should be imbued with an understanding of its complex roles in managing social groups and governance rather than with a sense of formalism, specificity, and simplicity.

The article focuses on boundaries by adopting the concept of the boundary object, as a device that holds different social worlds together in governance schemes, from research in information science. A boundary object is an incompletely specified thing whose very incompleteness allows the object to bridge practices and expectations across adjacent and overlapping but distinct communities of practice and expectation. The copyright work acts as a boundary object, crudely and sometimes incompletely distinguishing spheres of social activity from each other. Sometimes those are spheres within the domain of market-exchange. Sometimes, those spheres are characterized by open, unregulated distribution or exchange or are governed by non-copyright institutions and norms. Works, as things, help those spheres co-exist as both independent and overlapping domains, each building on its interpretations and practices surrounding the same object. As a boundary object, the work allows them to do so in particular places and times and across space and time. Specific disputes regarding the existence, identity, and character of a work or works both permit and often require parties and courts to focus on a shared object when parsing fine details of legal doctrine, broader questions of policy and theory, and ultimate questions of wealth, power, community, and welfare.

The co-existence of multiple social spheres means that a work that is produced by a particular author or authors, and that is accessed, read, and re-used by particular readers, listeners, critics, and consumers, becomes a means of articulating the interests and histories of multiple social groups and institutions. Some of those interests and histories find formal recognition and acceptance in acknowledged forms of copyright works, because their modes of production or their modes of consumption are validated by law, or by tradition, or by social norm. Some do not; some of those interests and histories are excluded from the law. The work has something of the madeleine to it. Call the work a pragmatic, Proustian object, to be read and interpreted somewhat flexibly, to be shaped

by shared meaning, and to become a memory object,⁹⁹ with the contests and contradictions of memory bundled within it. Law generally makes, interprets, and memorializes culture in ways that operate up and down and across scales, from the grand, abstract, and general all the way down to the tiny, concrete, and specific. A work may be a novel, a magic trick, or a movie prop. Or, perhaps, not. Any theory of governance and culture at the broader end of the scale has to work through the details of practice at the narrower end.

Boundary object analysis itself is far more elaborate and nuanced than I allow for here, just as governance is a broader topic than one encompassed solely or even primarily in a review of works or things. Boundary objects have different types and forms. There are “good” or “successful” boundary objects and there are “bad” or “weak” boundary objects. I have referred repeatedly to social worlds and social practices; those concepts, too, are fraught with pragmatic definitional and operational questions. Boundary objects are subject to power and wealth dynamics and to hierarchy and coercion. The article has situated boundary objects in part amid social worlds defined by the idea of gift exchange in broad juxtaposition with market-based exchange. I do not mean to elide the possibility that gift economies may be fraught with problems, and that boundary objects may be mis-used or designed badly, in ways that reinforce their problematic character.

Not all things are boundary objects. In broader terms, the study of the copyright work is an example and application of the study of IP things in general, including not only works but also inventions, marks, secrets, designs, and so on. I showed in earlier research that these things are not only legal constructs but legal constructs that emerge from patterns of social interaction and of legal and policy decisionmaking. Law creates its own things, which then are included in continued processes of law and governance. The purpose of this article has been to advance that earlier research by putting those patterns in a broader framework of social and cultural activity grounded in the idea of boundaries. Relevant patterns of social interaction may justify the conclusion that a thing is a well-bounded static object and should be confirmed legally as such. The copyright work has been incompletely understood because courts, scholars, litigants, and others have spent too much time trying to define the outer boundaries of the work and not enough time trying to understand patterns of practice in different institutions and social worlds. The same may be said, in future research, with respect to other IP things, with respect to things in property law in general (including land, water, and chattel property), and with respect to tangible and intangible resources of all sorts that play key roles in social and cultural life, whether or not those things are directly inflected by law.

This article has drawn attention to the intersections among copyright and digital technology. Equivalent complexities concerning things and governance can and should be explored in the context of modern biotechnology and life science. For example, when and how do synthetically-produced and synthetically-modified genes, tissues, and organisms become “things” or “thing-like”? The analysis presented here suggests that the search for final, clear, well-bounded answers to such questions in all cases may be not only fruitless but counterproductive, whether in the context of resolving disputes in courts and administrative agencies, in drafting or amending statutes, or in designing legal institutions in other respects, if answers are not situated in the dynamics of social practices. Things not only are made, by law and otherwise. Together with law, technology, and patterns of practice, and as expressions and signifiers of all three, things also evolve. The boundary object analysis presented in this article introduces a structured method for situating their evolution in the context of governance generally.

⁹⁹ See (Bowker 2006) (describing methods of recording knowledge as ways of making knowledge); (Buckland 1997) (describing complexities of medium, message, and meaning in interpreting things for archival classification); (Wolf 2007) (describing the neuroscience of reading, linked to the imaginative literary insights of Proust); (Spence 1984) (via biography, describing the changing techniques and purposes of memory).

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