

THE HIDDEN TRANSACTIONAL WISDOM OF MEDIA DISCRIMINATION IN PRE-AWCPA COPYRIGHT

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ABSTRACT

Media neutrality in copyright's subject matter means that works of authorship are protected against copying, or not, regardless of the tangible medium in which they are fixed. For example, the same features of a sculptural work are protected regardless of whether they are fixed in a statue or a photograph of a statue. Media neutrality in subject matter is a fundamental and largely unquestioned copyright principle with a firm policy basis under copyright's dominant incentive-to-create theory. Media discrimination in subject matter undermines in arbitrary ways authors' ability to recoup their creativity costs over the sale of multiple copies.

This Article identifies a situation in which departure from the copyright principle of media neutrality in subject matter is unexpectedly good policy. The rarely discussed transactional theory of copyright holds that copyright's goal is to facilitate the market transactions through which authors refine works and commercialize them into the copies that consumers want. When transactional theory, rather than incentive-to-create theory, is copyright's primary justification, maintaining protection for the medium in which authors develop works and eliminating it for the medium in which the public consumes them preserves copyright's full benefits while reducing its access costs.

To illustrate the argument, this Article looks to architecture as a case study. Copyright for building designs created before the enactment of the Architectural Works Copyright Protection Act (AWCPA) in 1990 employs media discrimination: it protects building designs when fixed in drawings but not when fixed in buildings. As a historical matter, the courts crafted this unusual rule of protected subject matter to accommodate concerns about copyright protection for the functionality of buildings. Yet, for architects who employ the custom design process at the core of the architectural profession, it has a sound transactional justification as well, and it would be good policy even if buildings were not functional artifacts. Copyright's principal role in custom architectural design is to facilitate the architect-client transaction in which architects create building designs in return for fees that cover design costs. Pre-AWCPA copyright can perform this role just as well as full media-neutral copyright because it protects

building designs fixed in architecture's development medium (drawings). However, it reduces copyright's access costs because competitor architects can borrow freely from building designs fixed in the consumption medium (buildings).

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INTRODUCTION

The 1976 Copyright Act (the “1976 Act”) makes media neutrality a bedrock principle of contemporary copyright law. Section 102(a) codifies the facet of this principle that addresses copyright’s protected subject matter: copyright protects “original works of authorship fixed in *any* tangible medium of expression.”¹ Assuming that a sequence of fictitious events is a protected aspect of a literary work, for instance, media neutrality

1. 17 U.S.C. § 102(a) (2018) (emphasis added).

in subject matter means that copying that series of events from a hardcover book or an audio recording is just as unlawful as copying it from an e-book or microfiche. Media discrimination in subject matter—that is, copyright protection for a work fixed in a first medium but not a second medium—is rare.²

This rarity is unsurprising because the policy justification for media neutrality in subject matter is intuitive and unchallenged. Copyright's dominant utilitarian justification is what is commonly called the incentive-to-create theory and what this Article terms the *market-buffer theory*.³ Works of authorship are public goods, and copyright augments what are often inefficiently low incentives for their production. Copyright allows authors to restrict competition, earn supracompetitive profits in the market for multiple copies, and offset the sunk cost of creating the works. Under the market-buffer theory, media discrimination in subject matter is little better than no copyright protection at all because it does not provide an effective buffer from market competition. It allows competitors to freely copy from the unprotected medium, sapping copyright protection for the protected medium of its economic value and leaving the public goods problem untouched.

This Article demonstrates that reducing copyright's reach by introducing media discrimination in subject matter can preserve copyright's benefits while reducing its costs. The argument involves two primary conceptual moves: the transactional theory sometimes provides copyright's primary justification, and media discrimination in subject matter can optimize copyright for the transactional theory.

The first move gets out of the deep rut in copyright thinking that has been worn by the repeated invocation of the market-buffer theory as copyright's

2. The only instance of longstanding media discrimination in copyright's subject matter arose as a judicially crafted limitation on the reach of copyright's denial of protection for three-dimensional, utilitarian articles. See *infra* Section II.C.

3. See *infra* notes 50–55 and accompanying text. The phrase “market-buffer theory” is meant to shift the focus away from the end goal of augmenting incentives for creative production and toward the mechanism through which copyright is presumed to generate those incentives. This focus on mechanism is important because competing justifications for copyright, such as the transactional theory, also sometimes provide incentives for creative production. See *infra* notes 310–313 and accompanying text. To draw an effective contrast between the conventional justification of copyright and the transactional justification, a new label for the incentive-to-create theory that highlights mechanism is essential. At least when applied to custom architecture, both theories are incentive-to-create theories.

For a small sampling of scholarship addressing what this Article terms the market-buffer theory of copyright, see WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 37–41 (2003); Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 *HANDBOOK OF LAW AND ECONOMICS* 1473, 1476–78 (A. Mitchell Polinsky & Steven Shavell eds., 2007); Shyamkrishna Balganesh, *Foreseeability and Copyright Incentives*, 122 *HARV. L. REV.* 1569, 1577–81 (2009); Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 *TEX. L. REV.* 989, 993–1000 (1997); Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 *VAND. L. REV.* 483, 492–99 (1996).

sole utilitarian justification.⁴ In some contexts, the transactional theory instead identifies copyright's primary justification.⁵

Under the transactional theory, copyright resolves the information paradox identified by Kenneth Arrow.⁶ Absent copyright, authors face disclosure dilemmas when they attempt sell their works as information commodities before their works have been commercialized. Authors hesitate to disclose their works to transactional partners because disclosure puts transactional partners in possession of their works and obviates the need to pay for them. Yet, transactional partners hesitate to pay authors for the works before disclosure occurs because they need the disclosure to determine how much they value the works.⁷ Copyright reduces the severity of authors' disclosure dilemmas. Clients often cannot appropriate works without paying authors and, correspondingly, authors are more comfortable providing the disclosure needed for efficiency-enhancing, pre-commercialization transactions to proceed.

The second move recognizes that media discrimination in subject matter can sculpt copyright to fit the transactional theory. For some types of works, authors initially fix works in a *development medium* to refine and commercialize them and then in a *consumption medium* to market them in the form that the public demands. For example, authors refine and commercialize movies through specs, screenplays, and storyboards (development media), but audiences' willingness to pay hinges on experiencing them as films or videos (consumption media). For works that have distinct development and consumption media, protection for the development medium but not the consumption medium—that is, a

4. This Article looks beyond the market-buffer theory, but not beyond utilitarian theory. It does not address the labor or personality theories of copyright that underly moral rights. See generally Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988).

5. See *infra* Section III.A. For a sampling of the legal scholarship on the transactional theory of copyright and patent, with patent being the more common topic, see Jonathan M. Barnett, *Intellectual Property as a Law of Organization*, 84 S. CAL. L. REV. 785, 800–02 (2011); Dan L. Burk & Brett H. McDonnell, *The Goldilocks Hypothesis: Balancing Intellectual Property Rights at the Boundary of the Firm*, 2007 U. ILL. L. REV. 575; Michael J. Burstein, *Exchanging Information Without Intellectual Property*, 91 TEX. L. REV. 227, 241–45 (2012); Paul J. Heald, *A Transaction Costs Theory of Patent Law*, 66 OHIO ST. L.J. 473 (2005); F. Scott Kieff, *IP Transactions: On the Theory & Practice of Commercializing Innovation*, 42 HOUS. L. REV. 727, 735–36 (2005) [hereinafter Kieff, *IP Transactions*]; F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697 (2001); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 277–78 (1977); Robert P. Merges, *A Transactional View of Property Rights*, 20 BERKELEY TECH. L.J. 1477 (2005); Stephen Yelderman, *Coordination-Focused Patent Policy*, 96 B.U. L. REV. 1565 (2016).

6. Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 615 (Nat'l Bureau of Econ. Research ed., 1962).

7. See *infra* notes 195–197 and accompanying text.

*consumption-medium/development-medium dichotomy*⁸ — transforms copyright into a two-phase right that is economically strong prior to consumption-medium copies being available to the public and weak thereafter. In the first phase, only development-medium copies exist, so copyists must copy from the protected medium if they are to copy at all. In the second phase, copyists can freely copy from consumption-medium copies, diminishing the economic relevance of the drawing-medium protection that persists as a legal matter for copyright’s lengthy term. Copyright scope does not shift as a legal matter upon transition from the strong phase to the weak phase, but its economic impact shrinks due to the public availability of the work fixed in a medium from which copies can be lawfully made.

In turn, this two-phase structure optimizes copyright for the transactional theory. In the first phase, protection for only the development medium is strong enough to defuse disclosure dilemmas because only development-medium copies exist and transactional partners must copy from protected development-medium copies if they are to copy at all.⁹ In the second phase, copyright’s weakness does not undermine any transactional benefits because there are no more disclosure dilemmas once the public has access to consumption-medium copies.¹⁰ Yet, it does reduce copyright’s access costs because competitors can freely borrow from works that have been fixed in the consumption medium. A consumption-medium/development-medium dichotomy thus leads to a “win–tie” result under the transactional theory’s cost–benefit tradeoff. It slims copyright down to a smaller bundle of sticks that imposes fewer costs (the win) yet still enables copyright to do all of the work that the transactional theory scripts for it (the tie).

To work through this insight in a concrete context, this Article presents a case study on media discrimination in subject matter in architectural copyright. Architecture provides a compelling case study for two reasons. First, building designs are one of the few subject matters in which copyright has actually enforced media discrimination in subject matter. Second, there

8. Using the term “dichotomy” is, obviously, a play on copyright’s well-known idea/expression dichotomy. *See infra* notes 62–63 and accompanying text. However, where the idea/expression dichotomy draws a line on a continuous spectrum of abstraction, the dichotomy introduced in this Article marks a categorical distinction between different kinds of media.

9. Furthermore, this phase will last long enough to achieve copyright’s transactional benefits. Authors will not authorize development-medium copies until they have contracts in place ensuring payment, and the creation of unauthorized development-medium copies entails infringement, giving the author a remedy to make her whole. *See infra* notes 329–331 and accompanying text.

10. Assuming that consumption-medium copies are self-disclosing, the public availability of consumption-medium copies means that transactional partners already possess knowledge of the works before the transaction occurs. *See infra* note 328 and accompanying text.

is a reasonable, although far from airtight, case to be made that media discrimination in subject matter is good policy for architectural copyright.¹¹

In order to comply with its new treaty obligations under the Berne Copyright Convention (“Berne”), Congress enacted revisions to architectural copyright in the form of the Architectural Works Copyright Protection Act (“AWCPA”) in 1990.¹² For building designs created on or after December 1, 1990,¹³ the AWCPA governs architects’ copyrights, and it provides media-neutral protection for building designs as a subject matter.¹⁴ However, for building designs created before that date, the pre-AWCPA regime still governs architects’ copyrights, and it imposes media discrimination in subject matter in the form of a *building/drawing dichotomy*. The building/drawing dichotomy protects features of building designs when they are fixed in drawings but not when they are fixed in constructed buildings. Any given feature of a building design, such as the spatial flow through a series of rooms or a window pattern on a façade, can only be reproduced from plans or elevations with the author’s permission, but it can be freely copied from buildings.

The building/drawing dichotomy and its media discrimination in subject matter are underappreciated aspects of pre-AWCPA copyright. This Article departs from prior commentary of pre-AWCPA copyright in two ways by structuring its analysis around them.¹⁵ First, the principal focus of prior

11. The transactional justification explored in this Article is not the reason why the courts originally endorsed media discrimination in pre-AWCPA protection for building designs. Rather, concerns about copyright protection for the broader class of functional artifacts, which includes, but is not limited to, buildings, prevented protection for buildings and made conditions ripe for courts to implement media discrimination in subject matter. *See infra* Section II.C.

12. Architectural Works Copyright Protection Act, Pub. L. No. 101-650, 104 Stat. 5089, 5133 (1990).

13. For a more detailed definition of the timing requirement for AWCPA protection, see Pub. L. No. 101-650, tit. 7, 104 Stat. 5133 § 706 (1990); U.S. COPYRIGHT OFFICE, COPYRIGHT REGISTRATION OF ARCHITECTURAL WORKS 1 (May 2019).

14. *See infra* Section II.D. *But cf. infra* notes 186–189 and accompanying text (noting that a small amount of media discrimination in the subject matter of architectural copyright may persist under the AWCPA).

15. No commentators have focused on pre-AWCPA copyright since the enactment of the AWCPA. For commentary on pre-AWCPA copyright before the enactment of the AWCPA, see Elizabeth A. Brainard, *Innovation and Imitation: Artistic Advance and the Legal Protection of Architectural Works*, 70 CORNELL L. REV. 81 (1984); James Bingham Bucher, Comment, *Reinforcing the Foundation: The Case Against Copyright Protection for Works of Architecture*, 39 EMORY L.J. 1261 (1990); Joseph M. Cahn, Comment, *The Protection of Architectural Plans as Intellectual Property*, 6 LOY. L.A. L. REV. 97 (1973); John F. Gisla, Comment, *Copyright Protection for Architectural Structures*, 2 U.S.F. L. REV. 320 (1968); Theodore Hellmuth, *Obsolescence Ab Initio: The New Act and Architectural Copyright*, 22 BULL. COPYRIGHT SOC’Y U.S.A. 169 (1975); Arthur S. Katz, *Copyright Protection of Architectural Plans, Drawings, and Designs*, 19 LAW & CONTEMP. PROBS. 224 (1954); Brian Edmund Leonard, Comment, *Copyright Protection for the Architect: Leaks in a Legal Lean-To*, 8 CAL. W. L. REV. 458 (1972); David E. Shipley, *Copyright Protection for Architectural Works*, 37 S.C. L. REV. 393 (1986); Michael G. Voorhees, Note, *Protecting Architectural Plans and Structures with*

commentary has been pre-AWCPA copyright's lack of a right to construct the building depicted in a drawing. This issue is tangential, at best, to the building/drawing dichotomy. The drawing side of the building/drawing dichotomy arises from pre-AWCPA copyright's exclusive rights to drawing-to-drawing copying; its failure to grant exclusive rights to drawing-to-building copying is entirely beside the point.¹⁶ Second, where prior commentary focuses squarely on the weaknesses of pre-AWCPA copyright, the building/drawing dichotomy also highlights an overlooked strength. On the drawing side of the dichotomy, pre-AWCPA copyright generates media discrimination in subject matter because its protection in cases alleging drawing-to-drawing copying is expansive enough in scope to encompass the very features of building designs that are unprotected when they are fixed in buildings.¹⁷

The point of the architecture case study is not simply the descriptive enterprise of providing a clearer view of the media discrimination in subject matter that exists in pre-AWCPA copyright. The point is also to suggest that the building/drawing dichotomy may be good policy for the custom architecture that is the mainstay of the architectural profession.¹⁸ This argument rests on two pillars.

First, the transactional theory, not the market-buffer theory, provides the principal normative ground for copyright in custom architectural design. All custom architecture arises out of architect-client transactions. Absent copyright, architects would face disclosure dilemmas in these transactions. Copyright reduces the severity of architects' disclosure dilemmas, deterring clients from appropriating works without providing compensation to architects and, correspondingly, making architects more willing to provide needed disclosures.¹⁹ In contrast, copyright in custom architecture does not

Design Patents and Copyrights, 17 DRAKE L. REV. 79 (1967); Natalie Wargo, Note, *Copyright Protection for Architecture and the Berne Convention*, 65 N.Y.U. L. REV. 403 (1990); Erika White, *Standing on Shaky Ground: Copyright Protection for Works of Architecture*, 6 ART & L. 70 (1981).

16. The absence of an exclusive right to drawing-to-building copying actually *reduces* the starkness of the difference between the drawing and building sides of the dichotomy. The dichotomy would be yet more marked if pre-AWCPA copyright were, counterfactually, to grant exclusive rights to drawing-to-building copying. See *infra* notes 80–82 and accompanying text.

17. The prior literature seems to either ignore this expansive scope or take it for granted, perhaps on the erroneous assumption that it is a necessary artifact of providing any drawing protection at all. However, an alternative, narrower scope of protection that maintains media neutrality in subject matter is also feasible. See *infra* Section II.B (introducing the distinction between rendition expression and representational content in architectural drawings).

18. The normative argument only addresses custom architecture; it does not extend to stock architecture. This limitation is reasonable insofar as custom architecture dominates the architectural profession. However, the existence of stock design, principally in the market for developer-driven single-family homes, complicates the argument for a return to the pre-AWCPA building/drawing dichotomy for architecture in general. See *infra* Section III.E.

19. Understanding copyright as a tool that is primarily useful for facilitating the architect-client transaction, rather than generating incentives by restricting competition, is new to the legal academy.

generate significant social value under the market-buffer theory.²⁰ Custom architects receive client fees on the front end that fund their creative production, so whatever free riding exists on the back end does not deprive them of significant financial incentives to create.²¹

Second, pre-AWCPA copyright sculpts copyright for custom architecture to fit the transactional theory because it is an example of a consumption-medium/development-medium dichotomy in action.²² It protects building designs fixed in the development medium (drawings) but not the consumption medium (buildings). Protection for building designs fixed in drawings alone generates all of the transactional benefits that full, media-neutral protection does (the tie). Custom architectural works are only fixed in drawings when architects face disclosure dilemmas. Buildings that can be freely copied do not exist until clients are contractually bound to pay architects for the full, agreed-upon price of the work, and thus after the window for profitable client appropriation has closed. In addition, the absence of building protection reduces copyright's access costs (the win). It gives competitor architects a robust, if time-delayed, public domain of works that they can use as inputs into the creative process.

To be clear, the transactional justification for the building/drawing dichotomy explored in this Article is not intended to map neatly onto the reasoning that the courts offered when they crafted the dichotomy. As a historical matter, the exclusion of buildings from protected subject matter developed out of concerns under the market-buffer theory about copyright protection for functional, utilitarian goods,²³ and the expansive drawing protection in cases alleging drawing-to-drawing copying then arose as a way of limiting that exclusion and bolstering architects' weak copyrights at the

However, it accurately captures the value that professional architects derive from their copyrights before the AWCPA. Pre-AWCPA copyright "primarily helped . . . those architects whose clients have wanted to retain the use of plans while switching to a second architect." Joseph Giovannini, *Architectural Imitation: Is it Plagiarism*, N.Y. TIMES, Mar. 17, 1983, at C6. In fact, it arguably remains the primary reason why custom architects use their stronger AWCPA copyrights today. Even though AWCPA protection makes it much easier for architects to prevail in infringement suits against parties other than their clients than pre-AWCPA protection does, architects doing custom work nonetheless still file the vast majority of AWCPA infringement suits against their clients. Kevin Emerson Collins, *Copyright and Customized Creativity* (Sept. 13, 2019) (unpublished manuscript) (on file with the *Washington University Law Review*).

20. See *infra* Section III.D.

21. In addition, protection for drawings provides some incentive through the competition-restriction mechanism that animates the market-buffer theory: it enforces a first-mover advantage and increases the cost of slavish copying. See *infra* notes 305–309 and accompanying text.

22. See *infra* Section III.C.

23. See *infra* Section II.C.2. Copyright would encroach upon the proper domain of patent law and upset the balance of public and private rights that patent strikes to promote technological innovation were it to protect the functional aspects of utilitarian goods. See *infra* Section II.C.1.

margin.²⁴ In contrast, from a transactional perspective, the building/drawing dichotomy is a means of reducing access costs in situations where copyright does not generate significant benefits, and it would be good policy even if buildings were not functional articles.²⁵ Nor is the hidden transactional wisdom of the dichotomy put forward as a revisionist history that proposes to rewrite the courts' motivations for creating the dichotomy.²⁶ It is merely a policy overlay: a new justification that is independent of the functionality-related reasoning presented in historical cases and commentary and that can be layered on top of that reasoning.²⁷

By zooming in on a particular creative discipline, the custom architecture case study adds to the literature on copyright tailoring.²⁸ Creative endeavors in different fields have different appropriability mechanisms, business models, and cost structures, and they unfold in different professional cultures. These differences raise the specter of uniformity costs when a single copyright rule applies in all contexts, and they suggest that different copyright rules may be optimal for different works, creators, or markets. The in-the-weeds perspective on professional architectural practice in this Article lends some support to enacting architecture-specific copyright

24. See *infra* Section II.C.3.a.

25. See *infra* notes 332–335 and accompanying text (noting that the transactional template for justified media discrimination does not require any consideration of the functionality of the subject matter protected). Functionality is relevant to a transactional justification of the building/drawing dichotomy in an indirect manner. It helps to explain why architects performing custom work can recoup their sunk costs upon the realization of the first building copy in the form of client fees, and it therefore contributes to the weak justification for building protection under the market-buffer theory. See Collins, *supra* note 19, at 31–33.

26. The transactional justification likely had little direct influence on the development of the dichotomy in the courts. It is specific to custom architecture, see *infra* Section III.E, and the cases in which the dichotomy arose involved stock architecture. See *infra* Section II.C.3.a.

27. At the extreme, the transactional justification of the building/drawing dichotomy might be thought of as a serendipitous coincidence—a doctrine developed for one reason that just felicitously happens to be good policy for a different reason. However, the truth is likely more complicated. The transactional virtues of the building/drawing dichotomy may very well have been what made professional architects, who earn their livings largely from custom design, content enough with the status quo of pre-AWCPA copyright that they did not fight for copyright reform. See *infra* notes 302–304 (noting that the AWCPA was not driven by architects lobbying for stronger rights). That is, the transactional rationality of the building/drawing dichotomy may help to explain why the dichotomy stuck and became a stable equilibrium, even if it does not explain why the courts initially adopted the dichotomy. This reasoning suggests a variant of the efficiency of the common law thesis. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 98 (1st ed. 1972). Here, efficiency does not guide judges when they craft law. At the limit, the courts could generate law randomly. Once produced, efficient rules lead the affected parties to not lobby Congress for change. This thesis only works, of course, if an efficient rule does not have clear losers with political power.

28. See Michael W. Carroll, *One Size Does Not Fit All: A Framework for Tailoring Intellectual Property Rights*, 70 OHIO ST. L.J. 1361 (2009); cf. DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* (2009) (arguing in favor of judicial tailoring on an industry-by-industry basis in patent law).

rules.²⁹ However, whereas tailoring is usually conceived as an alteration to copyright's duration or the reach of its substantial similarity infringement standard, tailoring here is accomplished through media discrimination in subject matter.³⁰

The architecture case study also provides an opportunity to zoom out and think about tailoring copyright law in other subject matters.³¹ The hidden transactional wisdom of the building/drawing dichotomy applies in situations that extend beyond custom architecture. More specifically, a three-condition template identifies the situations in which a consumption-medium/development-medium dichotomy is both viable and, perhaps, justified.³² First, the work's development and consumption media must be distinct. Second, copyright must have transactional value: authors must face disclosure dilemmas, and copyright must be capable of resolving those dilemmas. Third, the cost of protection for the consumption medium must outweigh the benefit under the market-buffer theory. Under these conditions, media discrimination in subject matter can lead to a well-

29. There are two important caveats on this support. First, the administrative costs of tailoring need to be considered. *See infra* note 319. Second, unless the tailoring is to focus on custom architecture to the exclusion of stock architecture (which would be quite costly), the full welfare calculus for architectural copyright requires consideration of the impact of the building/drawing dichotomy on stock works—and single-family home designs in developer-driven subdivisions in particular—in addition to custom works. *See infra* notes 314–320 and accompanying text.

30. In addition, the architecture case study suggests that the AWCPA may have sacrificed right-sized protection to achieve international harmonization through Berne compliance. Chris Sprigman makes a similar argument concerning the elimination of formalities needed for Berne compliance. Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485 (2004).

31. This Article also provides lessons with implications that extend beyond architecture because it pushes scholarship on intellectual property as a solution to Arrow's information paradox forward on three fronts. First, information paradoxes exist in more places than scholars have to date looked for them. The literature assumes that a contract requiring payment to an author closes the time window during which authors face disclosure dilemmas, but custom architects routinely face not only pre-contract disclosure dilemmas but post-contract disclosure dilemmas as well. *See infra* Section III.B.2. Second, resolving information paradoxes can sometimes generate an unexpected kind of social value, namely an incentive to create. Because the architect-client transaction funds the production of new works, copyright generates incentives for creativity by playing the transaction-facilitating role that the transactional theory scripts for it, not the competition-restricting role that the market-buffer theory scripts for it. *See infra* note 313 and accompanying text. Third, copyright can be optimized for the transactional theory. Whether implicitly or explicitly, the literature usually assesses the merits of using intellectual property to resolve Arrow's information paradox by weighing the costs and benefits of the intellectual property rights that exist today and that are shaped by the market-buffer theory. *See* Burstein, *supra* note 5, at 229–30; Heald, *supra* note 5, at 475–77; Kitch, *supra* note 5, at 265; Merges, *supra* note 5, at 1479. In contrast, this Article investigates the minimum set of rights needed for copyright to achieve transactional benefits. This exploration of tailored copyright highlights the analytical shortcut involved in jumping from a lack of need for copyright under the market-buffer theory to a lack of need for any copyright and, inversely, from the need for copyright under the transactional theory to a need for full-fledged copyright. Stephen Yelderman undertakes a similar optimization exercise, but his focus is on patent law, and the normative theory for which he considers optimizing rights is more expansive than the transactional theory as defined in this Article. Yelderman, *supra* note 5, at 1598–613.

32. *See infra* Section IV.

engineered copyright regime. It can transform copyright into a disclosure-resistant form of trade secret protection for self-informing goods that resolves pre-commercialization disclosure dilemmas but that places only limited restrictions on post-commercialization competition.³³

This Article proceeds in four parts. Part I presents the conventional wisdom on media neutrality in copyright's subject matter. It is a bedrock principle of the 1976 Act, and it is good policy under copyright's dominant market-buffer theory. The middle two parts focus on the custom architecture case study. Part II explores the building/drawing dichotomy of pre-AWCPA copyright, highlighting its historical origins in concerns about copyright protection for functionality and its media-discriminatory rule of protected subject matter. Part III reveals the dichotomy's hidden transactional wisdom. Custom architects face significant disclosure dilemmas in transactions with their clients, and copyright can defuse those dilemmas. The building/drawing dichotomy tailors architectural copyright to the transactional theory, and this tailoring is good policy because protection for buildings provides only minimal benefits under the market-buffer theory. Part IV presents a three-condition template for generalizing the dichotomy's hidden wisdom.

I. THE CONVENTIONAL WISDOM ON MEDIA NEUTRALITY

This Part reviews the conventional wisdom on media neutrality in copyright's subject matter. Part I.A distinguishes media neutrality in subject matter from media neutrality in rights. Part I.B highlights the importance of media neutrality in subject matter when the market-buffer theory provides copyright's justification.

A. Media Neutrality in Subject Matter and Rights

Media neutrality is a basic principle of copyright as we know it,³⁴ but an ambiguity clouds its significance. The principle can invoke neutrality in either subject matter or rights, and these two concepts are often elided.³⁵

Section 102(a) of the 1976 Act codifies media neutrality in subject matter. "Copyright protection subsists . . . in original works of authorship

33. See *infra* notes 337–342 and accompanying text.

34. Cf. H.R. REP. NO. 105-846, at 62 (1999) (noting that, in enacting copyright laws, "Congress has historically . . . regulat[ed] the use of information—not the devices or means by which the information is delivered or used by information consumers").

35. A second ambiguity in the concept of media neutrality is the distinction between *technical* and *functional* neutrality. See Carys J. Craig, *Technological Neutrality: Recalibrating Copyright in the Information Age*, 17 THEORETICAL INQUIRIES L. 601, 606–15 (2016) (distinguishing "formal nondiscrimination" from "functional equivalence"); Brad A. Greenberg, *Rethinking Technology Neutrality*, 100 MINN. L. REV. 1495, 1536–43 (2016) (distinguishing neutrality from "structural" and

fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”³⁶ Two entities invoked in § 102—works and their tangible embodiments—are important to distinguish. Works of authorship, such as literary works, musical works, and audiovisual works, are the intellectual entities that copyright protects. Tangible media of expression are the physical materials in which works of authorship must be fixed to trigger protection. Books, sheet music, and celluloid are all tangible media of expression; fixations of works in these media are all copies of the work.³⁷ Media neutrality in subject matter means that protection exists when a work—whatever it is—is fixed in *any* medium. For example, a literary work is protected when fixed in ink on paper (a book), magnetic charges on a hard drive (an e-book), or, eventually through adaptation, light and dark patches in celluloid (a film).

The mandate for media neutrality in subject matter was not always clear before the 1976 Act. For example, the 1909 Copyright Act (the “1909 Act”) listed “books” as protected subject matter.³⁸ The legislative history of the 1976 Act clearly evinces Congress’s intent to reject media discrimination in subject matter:

This broad language [of § 102(a)] is intended to avoid the artificial and largely unjustifiable distinctions . . . under which statutory copyrightability in certain cases has been made to depend upon the

“behavioral” perspectives on media neutrality). Where technical neutrality treats material instantiations of a work identically in all media, functional neutrality ensures that authors’ rights and users’ privileges remain consistent in all media. These two concepts of neutrality are not interchangeable. Achieving one sometimes requires violating the other. For example, if I find a hard-copy book in a Little Free Library by the side of a road, *see* LITTLE FREE LIBR., <https://littlefreelibrary.org/>, I can take the book home and read it without making a copy. However, I must make copies when I “take” an e-book from an online book-exchange website to read it. Technical neutrality views the offline and online scenarios as meaningfully different. The former does not create copies and the latter does. If the goal of functional neutrality were to grant readers the same privileges to lend books in the online world that they have in the offline world, the copies in the online scenario would need to be overlooked. *Cf.* Disney Enters., Inc. v. VidAngel, Inc., 869 F.3d 848, 856–57 (9th Cir. 2017) (adopting technological neutrality for online, second-hand markets); Capitol Records, LLC v. Redigi, Inc., 934 F. Supp. 2d 640 (S.D.N.Y. 2013) (same). Whatever the normative merits of functional neutrality in some contexts, this Article focuses exclusively on technical neutrality.

36. 17 U.S.C. § 102(a) (2018).

37. Works fixed in tangible media are frequently called “copies.” *See infra* note 41 and accompanying text. While the term “copies” only appears in statutes defining authors’ rights, it is commonly used to discuss protected subject matter. For example, the legislative history of the 1976 Act refers to “all of the material objects in which copyrightable works are capable of being fixed” as “copies” (or “phonorecords,” *see infra* note 41). H.R. REP. NO. 94-1476, at 53 (1976).

38. Copyright Act of Mar. 4, 1909, ch. 320, § 5(a), 35 Stat. 1075, 1076, *repealed by* Copyright Act of 1976, 90 Stat. 2541. *But cf.* Holmes v. Hurst, 174 U.S. 82, 89 (1899) (adopting an expansive definition of “book” that is “not to be understood in its technical sense of a bound volume” but rather as “any species of publication which the author selects to embody his literary product”).

form or medium in which the work is fixed. . . . [I]t makes no difference what the form, manner, or medium of fixation may be—whether it is in words, numbers, notes, sounds, pictures, or any other graphic or symbolic indicia, whether embodied in a physical object in written, printed, photographic, sculptural, punched, magnetic, or any other stable form, and whether it is capable of perception directly or by means of any machine or device “now known or later developed.”³⁹

Media neutrality in rights turns the focus away from the tangible medium of the existing copy from which an alleged infringer copies and toward the medium that she uses to produce a new copy. Section 106 grants copyright owners rights to reproduce and distribute their works.⁴⁰ More specifically, these rights control the reproduction and distribution of “copies,” which are “material objects . . . in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”⁴¹ This media-neutral definition means that parties who reproduce or distribute protected literary works are infringers, regardless of whether the copies that they make or sell are photocopies, audiobooks, or notebooks filled with hand-written, scribbled text.⁴² Authors’ reproduction and distribution rights are thus media neutral: “The fact that a work in one medium has been copied from a work in another medium does not render it any less a ‘copy.’”⁴³

Media neutrality in subject matter and rights are often elided, with rights getting most of the attention.⁴⁴ For example, consider *White-Smith Music*

39. H.R. REP. NO. 94-1476, at 52.

40. 17 U.S.C. § 106(1), (3) (2018). This Article focuses on media neutrality in the reproduction and distribution rights. *But cf. infra* note 43 (discussing neutrality in the display and performance rights). Its focus could also easily encompass the derivative work right, 17 U.S.C. § 106(2), but it puts that right to one side on the assumption that infringement of the derivative work right is usually also infringement of reproduction right. MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.09[A][1] (2018).

41. 17 U.S.C. § 101 (2018). Section 106 also includes rights to reproduce and distribute works in the form of “phonorecords.” *Id.* § 106(1), (3). Phonorecords are copies of works when the works are fixed as sounds and do not accompany a motion picture or other audiovisual work. *Id.* § 101. Phonorecords, too, are defined in a media-neutral manner. *Id.* Privileging simplicity over accuracy, this Article subsumes phonorecords within copies.

42. Audiobooks are technically phonorecords rather than copies. *See supra* note 41.

43. NIMMER & NIMMER, *supra* note 40, § 8.01[B]. The broad principle that copyright owners’ rights should not turn on technological niceties of form also extends to the display and performance rights. The display right applies to “copies.” 17 U.S.C. § 106(5); *id.* § 101 (defining “display”). The performance right is drafted in an expansive, technologically neutral manner. *Id.* § 106(4); *id.* § 101 (defining “perform” and “publicly”). *But see id.* § 106(6) (limiting the performance right for sound recordings to performances “by means of a digital audio transmission”).

44. The term “media neutrality” was introduced into contemporary copyright discourse in a discussion about rights neutrality in *New York Times Co. v. Tasini*, 533 U.S. 483, 502 (2001). Lower

Publishing Co. v. Apollo Co., the preeminent example of media discrimination in historical copyright law.⁴⁵ Holding that pianola rolls were not infringing copies of musical compositions, the Court drew a media-discriminatory line between actionable copies that were, like sheet music, “in a form which others can see and read,” and unactionable copies, like pianola rolls, that were not readily legible to a human reader because they were “parts of a machine which . . . produce musical tones in harmonious combination.”⁴⁶ *White-Smith* is clearly a case about rights discrimination, not subject matter discrimination. It did not hold that pianola rolls were unprotected subject matter and that they could therefore be freely copied back into sheet music. Yet, the legislative history of the 1976 Act cites *White-Smith* as the case that Congress rejected when enacting the media-neutral subject matter provision in § 102(a).⁴⁷

Both subject matter and rights neutrality frequently arise in discussions about the inevitability of technological change and the need to future-proof the copyright regime against technological obsolescence.⁴⁸ The history of copyright over the twentieth century reveals a long list of new technologies of dissemination as, for example, vinyl records gave way to audiotapes (which then gave way to digital formats), and film made room for video. Congress could have addressed this technological change by continually updating technology-specific provisions, but it instead adopted a media-neutral approach to rights and subject matter that encompassed yet-to-be-developed technologies within copyright’s ambit. While this future-proofing is an important policy concern that motivates media neutrality, the more fundamental point that media neutrality also prevents discrimination among known media should not be overlooked.

court cases citing *Tasini* for media neutrality all involve rights, too. *See, e.g.*, *Greenberg v. Nat'l Geographic Soc'y*, 533 F.3d 1244, 1257 (11th Cir. 2008); *Faulkner v. Nat'l Geographic Enters., Inc.*, 409 F.3d 26, 40 (2d Cir. 2005); *Peter Mayer Publishers, Inc. v. Shilovskaya*, 11 F. Supp. 3d 421, 427–28 (S.D.N.Y. 2014).

45. 209 U.S. 1 (1908).

46. *Id.* at 17–18. The 1909 Act overruled *White-Smith* by creating a mechanical license for nondramatic musical works that still exists today. 17 U.S.C. § 115 (2018); *cf. infra* note 60 (discussing media discrimination in copyright’s limitations and exceptions).

47. H.R. REP. NO. 94-1476, at 52–53 (1976); *cf. NIMMER & NIMMER, supra* note 40, § 2.03[B][1] (stating that the language of § 102(a) means that *White-Smith* “at long last reaches its deserved burial”).

48. Jane C. Ginsburg, *Copyright and Control over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613 (2001); I. Trotter Hardy, *Copyright and “New-Use” Technologies*, 23 NOVA L. REV. 659 (1999); Deborah Tussey, *Technology Matters: The Courts, Media Neutrality, and New Technologies*, 12 J. INTELL. PROP. L. 427 (2005).

B. Media Neutrality and the Market-Buffer Theory

Both subject-matter and rights neutrality have policy underpinnings that rest on copyright's dominant market-buffer theory. However, those underpinnings are not as equally foundational. There are good reasons to depart from rights neutrality under limited circumstances, but the virtues of subject-matter neutrality have never been questioned.⁴⁹

Copyright generates a social benefit under the market-buffer theory by creating a buffer for authors from market competition as a means to the end of alleviating a public goods problem.⁵⁰ Creating a work of authorship often requires time and money. That is, creation entails "creativity costs." Absent copyright, authors cannot recoup their creativity costs by selling multiple copies of their works as commodities in a market. Works are non-excludable, so competitors can become free riders by reproducing the copies that the authors have marketed. Without any creativity costs to recoup, competitors can drive the price for copies down to the marginal cost of production. Foreseeing the difficulty of recouping their creativity costs if they must compete with free-riding competitors, potential authors may choose not to become actual authors.⁵¹ By making works excludable as a legal matter, copyright enables authors to tamp down on free riding, restrict competition, and charge supracompetitive prices in the market for copies. Copyright thus augments incentives to create by giving authors a buffer from market competition and a reasonable expectation that they can recoup their creativity costs.⁵²

Of course, stronger copyright is not always better under the market-buffer theory. The flip side of the copyright incentives that restrictions on competition generate is increased access costs. Copyright raises the price of

49. The one historical exception to media neutrality in copyright's subject matter did not arise because media discrimination was viewed as affirmatively good policy on its own. Rather, the exception arose as a limit on the reach of the exclusion of three-dimensional, utilitarian articles from copyright protection. *See infra* Section II.C.

50. *See supra* note 3 (citing sources). The following two paragraphs recount the well-rehearsed explanation of market-buffer theory.

51. This decision not to author works is the public goods problem that copyright seeks to solve. Although it often has a pejorative connotation, free riding is only a social problem when it leads to suboptimal incentives to create. *See* Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005).

52. This Article considers any theory under which copyright overcomes a public goods problem as a market-buffer theory. Most commonly, as described in the text, the public good is the information that constitutes a new work of authorship. However, the public good may also be the information needed to transform an existing work of authorship into a commercially viable copy, meaning that certain strands of commercialization theory fall under the umbrella of the market-buffer theory as defined here. Burstein, *supra* note 5, at 237–41; *cf.* Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 138 (2004) (noting that some theories of intellectual property that locate social benefits in behavior occurring after a work has been developed still position intellectual property as a solution to a public goods problem).

the copies of works that consumers desire and leaves some consumers out of the market altogether.⁵³ In addition, copyright taxes future creativity as second-generation creators face more financial and legal obstacles to use existing works as inputs.⁵⁴ Thus, the incentives/access tradeoff provides the normative framework for justifying copyright under the market-buffer theory: copyright makes sense when the benefits of its incentives outweigh the costs of its restrictions on access.⁵⁵

Given copyright's access costs, copyright scope should clearly be limited under the market-buffer theory. Not all subject matter should be protected, and not all copying of protected subject matter should violate copyright owners' rights. The case against media discrimination lies in the effects of using it to limit copyright's reach. The limits on contemporary copyright sculpt copyright's reach to fit the market-buffer theory. In contrast, media discrimination in rights rarely accomplishes this goal, and media discrimination in subject matter never accomplishes it.

Initially, consider rights. Copyrights are today infringed only when a defendant reproduces or distributes a copy of a work that is substantially similar to the copyrighted work.⁵⁶ The substantial similarity analysis creates a direct correlation between the likelihood of infringement liability and the extent to which a defendant free rides on the copyrighted work.⁵⁷ The more heavily the defendant leans on the copyrighted work, the more convincingly the defendant's commercial success can be attributed to the copyright owner's work, and the greater the need for the defendant to be liable under the market-buffer theory to avoid a public goods problem.⁵⁸

In contrast, consider an infringement analysis that turns on the nature of the medium of the copy that the defendant produces or sells. In most situations, such an infringement analysis would not make any sense under

53. LANDES & POSNER, *supra* note 3, at 66–70; Balganesch, *supra* note 3, at 1578; Lemley, *supra* note 3, at 996–97; Lunney, *supra* note 3, at 497–98.

54. See SUZANNE SCOTCHMER, *INNOVATION AND INCENTIVES* 132 (2004); LANDES & POSNER, *supra* note 3, at 66–70; Balganesch, *supra* note 3, at 1578; Lemley, *supra* note 3, at 997–1000; Lunney, *supra* note 3, at 495–97.

55. LANDES & POSNER, *supra* note 3, at 20–21. Copyright's administrative costs also need to be considered. *Id.* at 18–19.

56. See generally Kevin J. Hickey, *Reframing Similarity Analysis in Copyright*, 93 WASH. U. L. REV. 681 (2016) (reviewing the uncertainties in copyright's substantial similarity analysis). Copyright infringement also requires a showing of copying-in-fact. See NIMMER & NIMMER, *supra* note 40, § 8.01.

57. The layperson serves as the arbiter of substantial similarity in order to bring concerns about market substitution into the infringement analysis. *Arnstein v. Porter*, 154 F.2d 464, 472–73 (2d Cir. 1946).

58. There are, of course, provisions in copyright's limitations and exceptions that weaken this correlation when society wants to promote a particular defendant's use. For example, the fair use defense requires consideration of “the purpose and character of the use.” 17 U.S.C. § 107(1) (2018); *cf. infra* note 60 (discussing media discrimination in copyright's limitations and exceptions).

the market-buffer theory. First, assume that copies in different media are substitutes for consumers. Here, media discrimination in rights vitiates incentives altogether. If a consumer is indifferent between paper-book and e-book copies of a work, and if paper copies, but not electronic copies, infringe, why would anyone ever make or distribute paper copies and opt into the copyright tax that provides authors with incentives? Second, assume that the copies in different media are not substitutes for consumers. Here, media discrimination in rights does not vitiate incentives altogether. If some consumers want paper books and other consumers want e-books, the author can still charge supracompetitive prices for paper books even though making and selling e-books does not infringe. However, without an additional explanation of why a copyright owner should not profit from the sale of e-books, the infringement is limited by a formalistic line. Why ignore a segment of the demand for a work and deprive authors of rewards that are proportional to its social value?⁵⁹

However, the “without an additional explanation” implies that some media discrimination in rights is good policy, at least provided that copies fixed in different media are not substitutes for consumers. Targeted media discrimination in rights can eliminate rights that generate small incentives or large access costs. Rights neutrality is thus not an absolute rule but rather a default rule that can be modified with good cause. Deviations from media neutrality in rights exist throughout the limitations and exceptions to authors’ rights codified in the 1976 Act,⁶⁰ and copyright scholars sometimes propose targeted rules of media discrimination in rights to further specific policy goals.⁶¹

59. Tussey, *supra* note 48, at 428, 432. Under the market-buffer theory, an author’s profits should be proportional to the commercial value of the work. The proportionality results in stronger incentives to create works that generate more social value, at least when value is measured by willingness to pay. See Lunney, *supra* note 3, at 490.

60. While § 106 of the 1976 Act specifies rights in a largely media-neutral manner, §§ 107–122 codify a host of limitations and exceptions on those rights. Many of these limitations and exceptions violate media neutrality in rights to achieve policy goals. Libraries have use privileges that are specific to digital copies. 17 U.S.C. § 108(c)(2) (2018). The owners of copies of computer programs have lending privileges that are specific to computer programs “embodied in a machine or product and which cannot be copied during the ordinary operation or use of the machine or product.” *Id.* § 109(b)(1)(B)(i). The owners of copyrights in useful articles have only limited rights to control the reproduction of their works in “pictures or photographs.” *Id.* § 113(c).

61. See, e.g., *supra* note 35 (considering the need to reject technical media neutrality in order to achieve functional media neutrality). Shyamkrishna Balganesesh argues that unforeseeable copies do not motivate authors to generate works and that discriminating against unforeseeable copies in copyright’s exclusive rights would therefore reduce copyright’s access costs without reducing its incentive benefits. Balganesesh, *supra* note 3, at 1574–75. Balganesesh’s proposal highlights that media discrimination in rights only makes sense when copies in different media are not substitutes for consumers. The proffered definition of an unforeseeable copy requires unforeseeability in both medium and use. *Id.* at 1604–09. The unforeseeability of the medium alone is not enough because copies involving unforeseeable media and foreseeable uses are likely to be market substitutes for copies that are foreseeable in both medium and use and that should clearly be infringing. *Id.* Balganesesh’s proposal also implicitly decouples media

Now, consider subject matter. Again, the contemporary doctrine for determining the reach of protected subject matter sculpts copyright protection to fit the market-buffer theory. For example, consider copyright's well-known idea/expression dichotomy that caps the level of generality at which a work can be protected by treating generalities as unprotected ideas and more specific ways of stating those generalities as protected expression.⁶² The idea/expression dichotomy is a reasonable way to curtail protected subject matter under the market-buffer theory because it denies protection to the subject matter that, if protected, would be more likely to generate larger dynamic costs. The generalities in today's works are more important source material for tomorrow's authors than the particularities are. The more essential the copied aspects of the work are to next-generation creators, the more costly copyright's restraint on next-generation authors, and the less likely those aspects are to be protected.⁶³

In contrast, consider the consequences of making protectable subject matter turn on the medium in which a work is fixed and thus making infringement contingent on the medium from which an alleged infringer copies. Here, media discrimination almost always vitiates copyright incentives in much the same way that media discrimination in rights does if copies in different media are substitutes. Free riders can copy from the unprotected medium and generate new copies in any medium, meaning that even robust copyright in the protected medium cannot resolve any public goods problem that exists.⁶⁴ Media neutrality in subject matter is a foundational principle under the market-buffer theory of copyright. The constrained leeway that exists for policy-sensitive media discrimination is yet further curtailed when the focus shifts from rights to subject matter. As the following Part illustrates, the only situation in which courts have ever embraced media discrimination in subject matter involves what they

neutrality in rights and subject matter. While he argues that unforeseeable copies should be noninfringing (media discrimination in rights), he appears to presume that unforeseeable copies should still be protected and that copying from unforeseeable copies could constitute infringement (media neutrality in subject matter).

62. *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930). The legal dichotomy draws a line on a continuous spectrum from the specific to the general; it does not mark a dichotomous fact in the world. *Id.* The precise point at which specific, protected expression transitions into general, unprotected ideas is difficult to identify with certainty in advance. *Id.*

63. Lunney, *supra* note 3, at 517–25.

64. The privilege to copy from the unprotected medium only leads to a public goods problem when two conditions are satisfied. First, the cost of copying from the unprotected medium must not be significantly greater than the cost of copying from the protected medium. *Cf. infra* notes 308–309 and accompanying text (discussing the high cost of producing slavish copies by copying a building). Second, the public must have access to a copy in the unprotected medium. *Cf. infra* notes 283–285 and accompanying text (discussing the economic effect of protection for drawings but not buildings before buildings have been constructed).

perceived to be something approximating a Hobbson's choice—a choice between a media-neutral rule of subject matter that grants almost no protection at all or a media-discriminatory rule that at least allowed authors to protect works fixed in particular media.

II. THE BUILDING/DRAWING DICHOTOMY

This Part examines a rare example of subject-matter discrimination in copyright law: the building/drawing dichotomy of pre-AWCPA copyright. Section II.A lays out the dichotomy as a legal rule, contextualizes it within pre-AWCPA copyright more broadly, and identifies the media discrimination in subject matter that it enforces. Section II.B highlights the media discrimination in subject matter that the building/drawing dichotomy creates by identifying a counterfactual, media-neutral rule that pre-AWCPA copyright could alternatively employ to provide protection to drawings but not buildings. Section II.C explores the dichotomy's common law origin in *Baker v. Selden* and its scattered, and perhaps partial, statutory codification. Section II.D briefly discusses the dichotomy's likely demise for works protected by the AWCPA.

A. The Doctrine

The building/drawing dichotomy refers to the protection that pre-AWCPA copyright grants to a particular type of copyrightable subject matter, namely building designs.⁶⁵ Broadly speaking, building designs can be fixed in either one of two media. They can be fixed in the steel, concrete, glass, and wood that are the components of constructed, habitable buildings. For convenience, this tangible medium of expression is called a building. Building designs can also be fixed in drawings. As used here, drawings encompass all two-dimensional representations of building designs. Electronic CAD files, computer printouts, blueprints of construction documents, and napkin sketches are all drawings.⁶⁶

The two-by-two matrix in Figure 1 illustrates that the distinction between buildings and drawings is critical in pre-AWCPA copyright. The two rows identify buildings and drawings as the possible media of the copies of a

65. Under the AWCPA, a building design is the design of a structure intended for human occupancy. *Cf.* 37 C.F.R. § 202.11(b)(2) (1997) (defining a building). This Article carries the same definition back into pre-AWCPA copyright.

66. The building/drawing dichotomy leaves out a third medium in which designs can be fixed, namely three-dimensional models, whether virtual or physical. There is no case law on point, but pre-AWCPA copyright likely protects scale models in the same way that it protects drawings. *See* 37 C.F.R. § 202.12(b) (1959) (identifying engineers' scale models as protected under § 5(i) of the 1909 Act); NIMMER & NIMMER, *supra* note 40, § 2A.08[C][1] (same).

building design from which an alleged infringer could appropriate to make a reproduction. The two columns identify buildings and drawings as the possible media of the copies that an alleged infringer can produce when she reproduces a building design.

FIGURE 1. ARE (MOST) FEATURES OF BUILDING DESIGNS PROTECTED UNDER PRE-AWCPA COPYRIGHT?

	Copying to Building	Copying to Drawing
Copying from Building	(2) No	(1) No
Copying from Drawing	(3) No	(4) Yes

The top row establishes that buildings (or, at least, most features of most buildings) are not protected subject matter.⁶⁷ Pre-AWCPA copyright provides protection against neither building-to-drawing copying (Box 1) nor building-to-building copying (Box 2).⁶⁸ The absence of building protection means that “an individual may take photographs or draw sketches of [a structure] and, coupled with innate ability, seek to reproduce that structure” without concerns about copyright infringement.⁶⁹ In other words, an architect who makes “measured drawings” of a building and reverse engineers the building into an elevation or plan does not infringe, even if she then proceeds to use the plans to construct an identical building.⁷⁰

The bottom row captures the partial nature of pre-AWCPA drawing protection for building designs. Architects do not have exclusive rights to drawing-to-building copying (Box 3).⁷¹ That is, the owners of copyrights in

67. Under the 1976 Act, the useful articles doctrine permits building protection for, first, add-on embellishments, such as gargoyles, and, second, monumental, nonfunctional structures, such as the Statue of Liberty. *See infra* notes 108–116 and accompanying text.

68. Box 2 has little economic import. Only the most rudimentary of building designs can be copied directly from one building to another without the creation of drawings as an intermediate step.

69. *Demetriades v. Kaufmann*, 680 F. Supp. 658, 663 (S.D.N.Y. 1988); *see also* *DeSilva Constr. Corp. v. Herrald*, 213 F. Supp. 184, 197–98 (M.D. Fla. 1962) (“[E]ven the plaintiff concedes that the model house was not protected by any copyright; consequently the defendants could imitate or reproduce said model house without incurring any liability for so doing.”).

70. U.S. COPYRIGHT OFFICE, *THE REPORT OF THE REGISTER OF COPYRIGHTS: COPYRIGHT IN WORKS OF ARCHITECTURE* app. C, page 4 of the Proskauer Rose Goetz & Mendelsohn letter on behalf of the American Institute of Architects (1989) [hereinafter 1989 COPYRIGHT OFFICE REPORT]. *But see* Katz, *supra* note 15, at 245 (suggesting that building-to-drawing copying constitutes infringement under pre-AWCPA copyright).

71. Some courts applying pre-AWCPA copyright reject the notion that constructing a building involves making a copy of a building design fixed in a plan. *See Imperial Homes Corp. v. Lamont*, 458

architectural drawings do not have an exclusive right to construct the building depicted in plans⁷²—a right which is sometimes called an “execution right.”⁷³ However, they do have exclusive rights to drawing-to-drawing copying (Box 4).⁷⁴ Tracing plans on vellum, sending them through blueprint machines, and making derivative works based on the building designs they embody can amount to infringement.

The building/drawing dichotomy arises from the juxtaposition of the two rows in Figure 1. The features of a building design are protected subject

F.2d 895, 899 (5th Cir. 1972) (“The exclusive right to *copy* what is copyrighted belongs to the architect, even though the plans give him no unique claim on any feature of the structure they detail.”). This rejection was influenced by courts’ concern that, if a building were a copy of the building design in a drawing, constructing a building could constitute publication of a work that terminated common law copyright and invalidated statutory copyright if notice formalities were not satisfied. *See* NIMMER & NIMMER, *supra* note 40, § 2A.09[A][1][a] n.66 (opining that the “assumption . . . that a structure is a ‘copy’ of its underlying plans[] leads to the fanciful conclusion that copyright notice strictures . . . apply to buildings”); *cf. infra* note 117 (discussing publication and common law copyright). This Article accepts that constructing a building from plans creates a copy of a building design, but this acceptance is not intended to imply that the construction of a building constitutes a publication under common law copyright.

72. Pre-AWCPA copyright likely does grant exclusive rights to drawing-to-building copying for the add-on embellishments and monumental structures that are protected subject matter under the useful articles doctrine when they are fixed in constructed buildings. *Cf. infra* notes 108–116 and accompanying text (noting that the useful articles doctrine permits protection for add-on embellishments when fixed in buildings). There is no architectural case law directly on point. In cases addressing drawings of non-architectural useful articles, courts frequently ask whether the useful articles have protected features and recognize the absence of an exclusive right to drawing-to-useful-article copying only when they do not. *See, e.g.,* Gusler v. Fischer, 580 F. Supp. 2d 309, 314–16 (S.D.N.Y. 2008); Eliya, Inc. v. Kohl’s Dep’t Stores, No. 06 Civ. 195(GEL), 2006 WL 2645196, at *8–12 (S.D.N.Y. Sept. 13, 2006). Courts also, of course, recognize exclusive rights to drawing-to-article reproduction for articles without any unprotected functional features. *Winfield Collection, Ltd. v. Gemmy Indus. Corp.*, 147 F. App’x 547 (6th Cir. 2005) (crashing witch Halloween decoration); *Fleischer Studios, Inc. v. Ralph A. Freundlich, Inc.*, 73 F.2d 276 (2d Cir. 1934) (dolls made from Betty Boop cartoons); *King Features Syndicate v. Fleischer*, 299 F. 533 (2d Cir. 1924) (toys made based on the cartoon characters Barney Google and Spark Plug).

73. *DeSilva Constr. Corp.*, 213 F. Supp. at 198 (stating that architects lack rights that parallel the “performance or execution rights granted to authors of musical compositions and dramatic works”). The term “execution right” may have originated with the statutory explanation for the absence of an exclusive right to drawing-to-building copying under the 1909 Act. *See infra* note 132.

74. There is some controversy concerning the public’s right to engage in drawing-to-building copying under pre-AWCPA copyright when the drawings at issue are unauthorized, infringing copies. *See Herman Frankel Org. v. Tegman*, 367 F. Supp. 1051, 1053 (E.D. Mich. 1973) (“A person should . . . be able to prevent another from copying copyrighted houseplans *and using them to build [a] house.*” (emphasis added)); *Demetriades*, 680 F. Supp. at 664–66 (enjoining defendants from “relying on any infringing copies of . . . plans” in the construction of a house yet refusing to enjoin the continuing construction based solely on alleged infringement of copyrighted plans). Cases involving non-architectural useful articles suggest that the construction of useful articles from an infringing copy of a drawing does not provide an independent hook for liability. *Forest River, Inc. v. Heartland Recreational Vehicles, LLC*, 753 F. Supp. 2d 753, 758–60 (N.D. Ind. 2010) (citing additional cases). On a related note, some pre-AWCPA copyright cases allow lost profits for drawing-to-drawing copying to consider the number of buildings built using the infringing drawings. *See Robert R. Jones Assocs., Inc. v. Nino Homes*, 858 F.2d 274, 280 (6th Cir. 1988) (holding that “where someone makes infringing copies of another’s copyrighted architectural plans, the damages recoverable by the copyright owner include the losses suffered as a result of the infringer’s subsequent use of the infringing copies”).

matter when they are fixed in drawings—there can be liability when the copier engages in drawing-to-drawing copying—but those same features are not protected subject matter when they are fixed in buildings.

The building/drawing dichotomy can perhaps most readily be grasped by examining the holding in *Imperial Homes Corp. v. Lamont*.⁷⁵ The defendants, the Lamonts, had a home built for themselves. The copyright owner, Imperial Homes, alleged that the Lamonts had copied the design of its Chateau home from schematic plans in an Imperial Homes advertising brochure. The district court held that Imperial had abandoned its copyright in the plans by publishing the plans in the brochure without proper notice, but the Court of Appeals for the Fifth Circuit reversed and upheld the validity of Imperial Homes' copyright.⁷⁶ The Fifth Circuit remanded to the district court to resolve a factual question: Had the Lamonts actually copied the Chateau home plan *from the brochure*? If they had engaged in such drawing-to-drawing copying (Box 4), they could be liable.⁷⁷ However, the Lamonts had also “visited and measured” a model Chateau home that Imperial had built to aid its sales.⁷⁸ If they had engaged in this building-to-drawing(-to-building) copying (Box 1), they were not liable. Liability does not depend on which features of the house design were reproduced, as is frequently the case when courts employ the originality requirement or the levels-of-abstraction test that structures copyright's famous idea/expression dichotomy to limit copyright's reach.⁷⁹ Rather, liability turns on the medium of the copy of the copyrighted work from which the Lamonts made their reproduction. Features of a building design are protected in one medium (drawings), but not in another (buildings). To reach this conclusion, *Imperial Homes* assumes drawing protection to be expansive enough to encompass the features of house design that are not protected when they are fixed in the model home. That is, *Imperial Homes* presumes media discrimination in subject matter.

For readers who are familiar with prior commentary on pre-AWCPA copyright, it is perhaps helpful to note one way in which focusing on the building/drawing dichotomy shifts the conventional analysis: it reduces the importance of the absence of an exclusive right to drawing-to-building copying in Box 3. The common approach to analyzing pre-AWCPA copyright has been to focus on the media discrimination in rights created by

75. 458 F.2d 895.

76. *Id.* at 898–900.

77. *Id.* at 899.

78. *Id.* at 897.

79. Under the idea/expression dichotomy, a feature is protected if it is expression (a specific feature) but not if it is an idea (a general feature). See *infra* notes 62–63 and accompanying text (discussing the levels of abstraction test for distinguishing expression from ideas).

the contrast between the two boxes of the bottom row: given a building design fixed in a drawing, pre-AWCPA copyright protects against reproduction into a new drawing-copy (Box 4) but not against reproduction into a new building-copy (Box 3).⁸⁰ In contrast, the building/drawing dichotomy highlights the difference between the two rows. A building design is not protected when it is fixed in a building (Boxes 1 and 2), but it is protected, and authors have some exclusive rights against copying, when it is fixed in a drawing (Box 4).⁸¹ This comparison of the rows means that the absence of an exclusive right to construct the building depicted in drawings under pre-AWCPA copyright is not part of the law that forms the building/drawing dichotomy. Because there is protection in Box 4, the dichotomy exists regardless of whether there is protection in Box 3.⁸²

B. A Counterfactual, Media-Neutral Alternative for Drawings

When referring to the building/drawing dichotomy in pre-AWCPA copyright, opinions and commentary use general language such as: “while it may be a violation of copyright law to copy architectural *plans* and *drawings* [into new drawings] . . . there is no prohibition against copying *architectural structures*.”⁸³ This statement is a correct statement of the law of pre-AWCPA copyright, but it does not get to the core of the matter on the drawing side of the dichotomy. Pre-AWCPA copyright could counterfactually provide protection to drawings but not buildings with a narrower, media-neutral rule of subject matter that denies protection to

80. See *supra* note 15 (citing commentary on pre-AWCPA copyright). In one way, the dominance of this approach is understandable. It tracks the use/explanation distinction in authors’ rights articulated in *Baker v. Selden*, 101 U.S. 99 (1879), and thus the historical path along which pre-AWCPA copyright developed. See *infra* Section II.C.3.a. In another way, however, this intense focus on the absence of an exclusive right to drawing-to-building copying is odd. This exclusive right is rarely important as a practical matter. Most defendants who use an architect’s plans to construct a building must engage in drawing-to-drawing copying in the course of doing so, providing a hook for liability. See *infra* notes 289–290 and accompanying text.

81. In other words, the analysis here shifts the conceptual framework from media discrimination in authors’ rights to media discrimination in subject matter. See *supra* Section I.A.

82. Altering pre-AWCPA copyright to grant an exclusive right to drawing-to-building copying would only further accentuate the media discrimination in subject matter that currently generates the building/drawing dichotomy. The difference between the rows would be yet starker. Cf. *infra* notes 290–291 (arguing that granting an exclusive right to drawing-to-building copying in Box 3 is a viable proposal under the transactional justification of the building/drawing dichotomy).

83. *Richmond Homes Mgmt., Inc. v. Raintree, Inc.*, 862 F. Supp. 1517, 1524 (W.D. Va. 1994), *rev’d in part on other grounds*, 66 F.3d 316 (4th Cir. 1995); see also, e.g., *Fotomat Corp. v. Photo Drive-Thru, Inc.*, 425 F. Supp. 693, 707 n.14 (D.N.J. 1977) (“[T]he law of copyright makes a sharp distinction between the need for protecting plans and drawings of buildings . . . and the absence of such protection for structures derived from those plans.”); NEIL BOORSTYN, *COPYRIGHT LAW* 77 (1981); PAUL GOLDSTEIN, *GOLDSTEIN ON COPYRIGHT* § 2.15.1.2 (2019); NIMMER & NIMMER, *supra* note 40, § 2A.09[A][1][a].

building designs in all media. That is, it could protect only drawing-specific expression in drawings.

To grasp this media-neutral alternative, it is essential to recognize that all representational drawings contain two different types of features. First, some features are *representational content* because they depict *what* the drawing represents.⁸⁴ For example, the features of a drawing illustrating the cut of a dress, the shape of the back of a chair, or the depth of a balcony are all representational content. Second, other features are *rendition expression* because they are wound up with *how* an object is depicted.⁸⁵ The line weights in a drawing of a dress pattern, the hatching patterns used for shading in a rendering of a chair, the perspective from which an object is depicted, and the location of explanatory texts on architectural plans are all examples of rendition expression.

Representational content and rendition expression are different in a fundamental way. The features that constitute representational content are present in both a drawing of the article and the article itself; the features that constitute rendition expression are drawing-specific in that they are present only in the drawing and not in any real-world copy of the article. The curves that constitute the cut of a dress or the back of a chair are present in both a drawing of the articles and the articles themselves, but there are no line weights, hatching patterns, or perspectival points of view in the articles themselves. The word “Living Room” may appear in a particular spot and font on a plan of a single-family home. It may be a protected feature in the drawing (albeit one that receives only thin protection). This feature does not exist in the building that the drawing represents. There is never a giant word embroidered on a rug or stained into the building’s floor.

The building-drawing dichotomy and media discrimination exist only because drawing protection in cases alleging drawing-to-drawing copying (Box 4 of Figure 1) is expansive enough to encompass not only rendition expression but representational content, as well. Drawing protection that only encompasses rendition expression offers an alternative to the building/drawing dichotomy that provides some protection to drawings while remaining media-neutral with respect to protected subject matter. Under this alternative, the features of building designs are never protected,

84. In Peircean semiotics, signs have representational content when interpreters understand them to refer or point to an “object” outside of the sign. See DANIEL CHANDLER, SEMIOTICS: THE BASICS 29–31 (2002). Representational drawings are iconic signs in which the relationship between the sign’s visually perceptible form and its content is not arbitrary but is instead based on physical resemblance of some kind. *Id.* at 36–37.

85. *Cf.* *Mannion v. Coors Brewing Co.*, 377 F. Supp. 2d 444, 452 (S.D.N.Y. 2005) (defining “rendition” expression in a photograph as “not *what* is depicted, but rather *how* it is depicted”).

regardless of whether they are fixed in drawings or buildings.⁸⁶ What cannot be copied from drawings is only rendition expression, and rendition expression does not exist in buildings.

Recognizing the existence of a media-neutral alternative to the building/drawing dichotomy that protects drawings but not buildings leads to a novel question: Do the cases applying pre-AWCPA copyright really enforce the building/drawing dichotomy or do they employ the media-neutral alternative? Pre-AWCPA copyright cases do not expressly state one rule or the other. They use generic language that does not provide enough detail to reach a conclusion.⁸⁷ However, evidence that pre-AWCPA copyright employs the building/drawing dichotomy does exist in the holdings of pre-AWCPA copyright cases. Courts have found liability in three fact patterns that strongly suggest media discrimination in protected subject matter.

First, some pre-AWCPA cases, such as *Imperial Homes*, make liability turn on whether the defendant copies from buildings or drawings.⁸⁸ This holding only makes sense if copyright protects representational content in drawings. Otherwise, the same expression could not be copied from either medium.

Second, some pre-AWCPA cases mention unprotected building features when explaining why the copyrighted and allegedly infringing drawings are, or are not, substantially similar. For example, one case discusses “a long front porch, no double-gabled roof, and a significantly different arrangement of front windows” when assessing substantial similarity.⁸⁹ If drawing protection did not extend to representational content, then this comparison would be irrelevant.

Third, some pre-AWCPA cases find liability based on the copying of the copyright owner’s highly schematic drawings of house designs, often published in advertising brochures.⁹⁰ Such highly schematic plans contain little rendition expression; they use simple graphics to convey the configuration of the rooms within the house. Furthermore, the defendants in these cases used the schematic plans to create derivative works in the form

86. Technically, drawing protection remains media neutral if it extends to both rendition expression and representations of the non-functional features of designs that are protected when embodied in three-dimensional objects under the useful articles doctrine. *See infra* notes 108–116 and accompanying text (noting that the useful articles doctrine permits protection for monumental structures and add-on embellishments when they are fixed in buildings).

87. *See supra* note 83 and accompanying text.

88. *See supra* notes 75–79 and accompanying text (discussing *Imperial Homes*).

89. *Richmond Homes Mgmt., Inc. v. Raintree, Inc.*, 862 F. Supp. 1517, 1527 (W.D. Va. 1994), *rev’d in part on other grounds*, 66 F.3d 316 (4th Cir. 1995).

90. *See Imperial Homes Corp. v. Lamont*, 458 F.2d 895, 896 (5th Cir. 1972) (finding liability based on copying a plan “in a sales promotion brochure”); *Herman Frankel Org. v. Tegman*, 367 F. Supp. 1051, 1052 (E.D. Mich. 1973) (an “abridged architectural drawing”).

of detailed working drawings,⁹¹ meaning that whatever rendition expression does exist in schematic plans is unlikely to have been copied.⁹² In contrast, when copyright owners allege that defendants copy working drawings, rendition expression may well be at least part of what is copied.⁹³

C. Common Law Origin and Statutory Codification

The historical origins of the building/drawing dichotomy of pre-AWCPA copyright are deeply enmeshed with policy concerns about copyright reaching too far by protecting functional artifacts and thereby encroaching into patent law's proper domain. Section II.C.1 presents these concerns. However, the concerns play out differently on each side of the dichotomy. As discussed in Section II.C.2, the building side responds to those concerns directly: denying building protection prevents copyright from extending to the functional features of a useful article. Section II.C.3 turns to the more complicated drawing side of the dichotomy that pushes back against those concerns, at least in cases involving drawing-to-drawing copying.⁹⁴ The expansive drawing protection in pre-AWCPA copyright for not only rendition expression but also representational content actually expands the control over the functional features of a building design that copyright grants to architects. The latter two sections also discuss the statutory basis for each side of the building/drawing dichotomy.⁹⁵

91. *Imperial Homes*, 458 F.2d at 897; *Tegman*, 367 F. Supp. at 1052.

92. In contrast, if the alleged copying involves photocopying or scanning plans for use in comparative advertising, the defendant likely does copy whatever minimal amount of rendition expression is present in schematic plans. See *Forest River, Inc. v. Heartland Recreational Vehicles, LLC*, 753 F. Supp. 2d 753, 760–66 (N.D. Ind. 2010).

93. See *Herman Frankel Org. v. Wolfe*, No. 4-70132, 1974 U.S. Dist. LEXIS 5994, at *4–5 (E.D. Mich. Nov. 1, 1974) (noting that “defendant . . . copied between 70% and 80%” of “plaintiff’s copyrighted architectural working floor plans and elevations”).

94. In cases alleging drawing-to-building copying, pre-AWCPA copyright again responds directly to those concerns by refusing to grant architects exclusive rights. See *infra* notes 132–135 and accompanying text. However, the absence of exclusive rights to drawing-to-building copying is not a part of pre-AWCPA copyright that contributes to the building/drawing dichotomy. See *supra* notes 80–82 and accompanying text.

95. Technically, a discussion of the origins and statutory bases of the building/drawing dichotomy in pre-AWCPA copyright is a bit of a detour from this Article’s thesis. The dichotomy’s hidden transactional wisdom is intended as a policy overlay that is unrelated to the dichotomy’s actual history. See *supra* notes 23–27 and accompanying text. The line of precedent from which the dichotomy evolved and its eventual statutory codification are largely irrelevant to the fact that the dichotomy tailors copyright to a transactional justification. Nonetheless, this Section offers a close look at the building/drawing dichotomy in pre-AWCPA copyright on the terms established by the opinions and statutes from which it arises. This close look reveals that the dichotomy’s basis in case law is more contested, and its statutory grounding is more tenuous, than prior commentary has recognized.

1. Copyright and Functionality

As the Supreme Court explained over a century ago in *Baker v. Selden*, copyright protection for functionality involves a category mismatch.⁹⁶ Selden, the plaintiff, wrote and copyrighted a book with a textual explanation of a supposedly novel method of bookkeeping and examples of forms that could be used to perform the method. He alleged that Baker infringed his copyright by publishing a book with text that described a similar method and forms that could be used to structure the entry of data when performing the method. The Court held that whatever copyright Selden had in his book and forms did not grant him exclusive rights to practice the functional bookkeeping method.⁹⁷ Patent law, with its robust validity requirements and short duration, is supposed to set the terms on which the inventor of a functional method or artifact can obtain exclusive rights. If the laxer validity requirements of copyright law were all that needed to be satisfied to obtain copyright's longer protection, inventors could use copyright as an end-run around the patent regime's limitations that safeguard the public domain. "To give to the author of [a] book an exclusive property in the art described therein, when no examination of its novelty has ever officially been made, would be a surprise and a fraud upon the public. That is the province of letters-patent"⁹⁸

Baker clearly establishes that copyright should not allow authors to control functional articles, but the doctrinal means that *Baker* employs to achieve this end are open to debate. *Baker* is most frequently understood to limit the reach of the subject matter that copyright protects.⁹⁹ This subject-matter interpretation resonates with the various "functionality screens" that copyright employs to keep functional subject matter out of the subject matter that copyright protects.¹⁰⁰ Alternatively, a more controversial interpretation views *Baker* as accepting functional works as copyrightable subject matter and limiting the exclusive rights that authors have with respect to that subject matter. This rights-centered interpretation gives rise

96. *Baker v. Selden*, 101 U.S. 99 (1879).

97. *Id.* at 101–05.

98. *Id.* at 102.

99. Pamela Samuelson, *The Story of Baker v. Selden: Sharpening the Distinction Between Authorship and Invention*, in *INTELLECTUAL PROPERTY STORIES* 159, 181–92 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006); Pamela Samuelson, *Frontiers of Intellectual Property: Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 *TEX. L. REV.* 1921, 1928–36 (2007) [hereinafter Samuelson, *Frontiers*].

100. For discussions of functionality screens in copyright law and intellectual property more broadly, see Christopher Buccafusco & Mark A. Lemley, *Functionality Screens*, 103 *V.A. L. REV.* 1293 (2017); Mark P. McKenna & Christopher Jon Sprigman, *What's in, and What's out: How IP's Boundary Rules Shape Innovation*, 30 *HARV. J.L. & TECH.* 491 (2017).

to what is commonly called the use/explanation distinction in copyright owners' rights.¹⁰¹

These two interpretations of *Baker* lie at the doctrinal foundations of two different aspects of pre-AWCPA copyright. As discussed in Section II.B.2, the subject-matter interpretation leads directly to the absence of building protection. As discussed in Section II.B.3, the rights-centered interpretation played a critical, although contested, role in establishing the scope of drawing protection.¹⁰²

2. *The Absence of Building Protection*

The reason for the absence of building protection under pre-AWCPA copyright follows directly from the subject-matter interpretation of *Baker*. Buildings are utilitarian objects: they resist gravity, provide shelter from the elements, and enable a range of human activities within their spatial confines.¹⁰³ Their functionality makes them akin to other functional objects such as furniture, clothing, and shovels. Protection for the functional features of a building would make copyright encroach into patent's proper domain. Pre-AWCPA copyright therefore used a functionality screen to keep the functionality of buildings out of the subject matter of copyright.

On a doctrinal level, the functionality screen that excludes buildings from protected subject matter evolved over the twentieth century. For at least the first several decades after the enactment of the 1909 Act, the absence of building protection was enforced by an "exclusion screen."¹⁰⁴ Buildings were categorically excluded from copyright protection because they did not fall within the categories of subject matter that the statute listed as eligible for protection. The only statutory category that could encompass

101. For discussions of *Baker's* use/explanation distinction, see ABRAHAM DRASSINOWER, WHAT'S WRONG WITH COPYING? 85–100 (2015); Wendy J. Gordon, *How Oracle Erred: The "Use/Explanation Distinction" and the Future of Computer Copyright*, in COPYRIGHT LAW IN AN AGE OF LIMITATIONS AND EXCEPTIONS 375, 386–88 (Ruth L. Okediji ed., 2017).

102. One theme that runs through both sections is the relationship between pre-AWCPA copyright for building designs and copyright for designs of non-architectural, functional utilitarian artifacts. Most of the law is unsurprisingly identical given that the building/drawing dichotomy is akin to a garment/drawing or furniture/drawing dichotomy: it is just one example of a broader useful-article/drawing dichotomy. However, there are also points of departure that make the building/drawing dichotomy more pronounced than the useful-article/drawing dichotomy in non-architecture cases. See *infra* notes 114–116 and accompanying text (suggesting that fewer features of buildings may have been protected); *infra* Section II.C.3.b (noting that there are no historical cases clearly establishing that drawing protection for designs of non-architectural useful articles extends to design features that are not protected when fixed in the useful articles themselves).

103. Kevin Emerson Collins, *Patent Law's Authorship Screen*, 84 U. CHI. L. REV. 1603, 1646–51 (2017).

104. Buccafusco & Lemley, *supra* note 100, at 1310–11.

three-dimensional objects was “works of art.”¹⁰⁵ While monuments and other structures not intended for occupation could qualify as works of art,¹⁰⁶ habitable buildings could not.¹⁰⁷ However, by the time the 1976 Act was enacted, the functionality screen for buildings had, in theory at least, evolved into a “filtering screen” that requires a feature-by-feature determination of functionality and thus protectability.¹⁰⁸ The 1976 Act changes the relevant category of copyrightable subject matter from works of art to “pictorial, graphic, and sculptural works” (PGS works), which is easily expansive enough to encompass buildings.¹⁰⁹ It then identifies a subset of PGS works as “useful articles”—articles “having an intrinsic utilitarian function,” including buildings, furniture, clothing, and shovels¹¹⁰—and creates the useful articles doctrine to limit the protection granted useful articles. The design of a useful article is protected only “to the extent that[] such design incorporates . . . features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.”¹¹¹

The test for determining when features can be separately identified and are capable of independent existence from an object’s utility has proven maddeningly evasive.¹¹² However, the potential for more liberal protection for utilitarian artifacts under the 1976 Act than they initially received under the 1909 Act is clear.¹¹³ A utilitarian object that is categorically excluded

105. Copyright Act of Mar. 4, 1909, ch. 320, § 5(g), 35 Stat. 1075, 1076, *repealed by* Copyright Act of 1976, 90 Stat. 2541.

106. See *Jones Bros. Co. v. Underkoffler*, 16 F. Supp. 729, 731 (M.D. Pa. 1936).

107. See HORACE G. BALL, *THE LAW OF COPYRIGHT AND LITERARY PROPERTY* 396–98 (1944); Note, *Protection for the Artistic Aspects of Articles of Utility*, 72 HARV. L. REV. 1520, 1524 (1959); Walter J. Derenberg, *Copyright No-Man’s Land: Fringe Rights in Literary and Artistic Property*, 35 J. PAT. OFF. SOC’Y 627, 646 (1953). The 1870 Copyright Act, which was the first to embrace three-dimensional works, only protected the “fine arts.” Act of July 8, 1870, ch. 230, § 86, 16 Stat. 198, 212. For the first several decades after its enactment, the 1909 Act’s liberalization of copyright’s subject matter from “fine arts” to “works of art” was largely ignored. 37 C.F.R. § 201.4(7) (1939); Note, *supra*, at 1524; Derenberg, *supra*, at 646.

108. Buccafusco & Lemley, *supra* note 100, at 1311–12. *But cf. id.* at 1313–14 (noting that the useful articles doctrine also has some qualities of a “threshold” screen).

109. 17 U.S.C. § 102(a)(5) (2018).

110. 17 U.S.C. § 101 (2018) (defining a useful article); *cf. infra* note 172 and accompanying text (discussing an additional limitation on the definition of a useful article). Although the useful articles doctrine was only added to the statute with the 1976 Act, this Article sometimes uses the term “useful article” anachronistically to describe works with intrinsic utilitarian functions whose protectability is determined by the 1909 Act.

111. 17 U.S.C. § 101 (2018).

112. For the Supreme Court’s recent articulation of the test, see *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1002 (2017).

113. The transition to the filtering screen of the useful articles doctrine actually occurred before the enactment of the 1976 Act. The Copyright Office moved in this direction in 1949. 37 C.F.R. § 202.8(a) (1949); Derenberg, *supra* note 107, at 646–47. The Supreme Court cited the Copyright Office’s position approvingly in *Mazer v. Stein*, 347 U.S. 201, 211–14 (1954), and the Copyright Office then refined its rule yet further, 37 C.F.R. § 202.10(c) (1959).

from the copyright regime under the 1909 Act could have select non-utilitarian features protected under the 1976 Act.

While this liberalizing shift in copyright's functionality screen applied to architectural works as a legal matter, it was a non-event as a practical matter because the shift did not alter the protection actually granted to buildings. The doctrine changed, but the extent of protection for buildings only budged a small bit, if at all. Pre-AWCPA copyright deems most all building features to be incapable of being identified separately from and existing independently of the building's functionality.¹¹⁴ There are two lone exceptions to this *per se* rule. First, protection exists for monumental structures, such as the Statue of Liberty.¹¹⁵ Second, pre-AWCPA copyright protects a building's add-on decoration—"artistic sculpture or decorative ornamentation or embellishment added to a structure"—such as stained glass windows and gargoyles on neo-gothic academic campuses.¹¹⁶

3. *The Expansive Scope of Drawing Protection*

The existence of drawing protection in pre-AWCPA copyright is well established.¹¹⁷ The statutes require it. Under the 1909 Act, architectural plans and elevations are protected as "[d]rawings or plastic works of a

114. SUBCOMM. ON PATENTS, TRADEMARKS, & COPYRIGHTS OF THE S. COMM. ON THE JUDICIARY, 86TH CONG., STUDY NO. 27 ON THE COPYRIGHT LAW REVISION, COPYRIGHT IN ARCHITECTURAL WORKS 71 (Comm. Print 1961) [hereinafter STUDY NO. 27].

115. H.R. REP. NO. 94-1476, at 55 (1976).

116. *Id.* at 55–59; *Leicester v. Warner Bros.*, 232 F.3d 1212, 1215 (9th Cir. 2000) (suggesting, in dicta, that gargoyles and stained glass windows would be protectable features of building designs under pre-AWCPA copyright). Most copyright owners in pre-AWCPA cases concede that buildings are not protected subject matter, so the courts have not had the opportunity to address the issue of which features are protected, add-on embellishment. *See, e.g., DeSilva Constr. Corp. v. Herral*, 213 F. Supp. 184, 197–98 (M.D. Fla. 1962).

117. The gap between common law and statutory copyright under the 1909 Act frequently undermined drawing protection. Common law copyright only protected unpublished works. Statutory copyright vested upon publication, but only if the published copies followed the 1909 Act's notice formalities. A permissive definition of publication that included constructing a building or filing plans with the municipal building department, combined with architects' failure to comply with the statutory notice formalities, often left architects without protection for their drawings in early cases. *See Cahn, supra* note 15, at 101–09; *Katz, supra* note 15, at 229–37; *Architects—Protection of Plans as Intellectual Property—Loss of Right by Publication*, 24 WASH. U. L.Q. 418, 418–20 (1939). More recent cases often held that constructing a building and filing required plans did not constitute a publication that divested architects of their common law copyrights. *See, e.g., Krahrmer v. Luig*, 317 A.2d 96 (N.J. Super. Ct. Ch. Div. 1974); *Wallace v. Helm*, No. 867 177, 1969 WL 9567, at *3 (Cal. Super. Ct. Feb. 3, 1969); *Edgar H. Wood Assocs., Inc. v. Skene*, 197 N.E.2d 886, 894 (Mass. 1964). In its transactional justification of pre-AWCPA copyright in Part III, this Article does not defend this gap in pre-AWCPA protection for architectural drawings. It presumes that statutory copyright vests upon fixation, as it does under the 1976 Act.

scientific or technical character.”¹¹⁸ Artistic renderings of buildings are protected as “[w]orks of art.”¹¹⁹ Under the 1976 Act, building designs remain PGS works when they are fixed in drawings.¹²⁰

This Section moves beyond the existence of this statutory mandate for drawing protection and focuses on the scope of drawing protection in cases alleging drawing-to-drawing copying. The building/drawing dichotomy exists, and pre-AWCPA copyright involves media discrimination in subject matter, only because the scope of this drawing protection is expansive enough to encompass features of building designs that are not protected when fixed in buildings.¹²¹ Section II.C.3.a examines how courts used the explanation side of *Baker*’s use/explanation distinction in authors’ rights to craft this expansive scope of protection for drawings of building designs. In a brief detour, Section II.C.3.b examines the evolution of drawing protection in cases alleging drawing-to-drawing copying of non-architectural useful articles. Finally, Section II.C.3.c considers the argument that the 1976 Act codified the building/drawing dichotomy as part of a larger useful-article/drawing dichotomy.

a. Architecture and the Use/Explanation Distinction

The most common interpretation of *Baker* denies protection to the functional features of building designs and places them categorically beyond copyright’s reach.¹²² The application of this subject-matter interpretation of *Baker* to architectural drawings would yield the media-neutral alternative to the building/drawing dichotomy introduced above: the features of building designs would not be protected either when they are fixed in buildings or when they are fixed as representational content in drawings.¹²³ To support the drawing side of the building/drawing dichotomy and its media discrimination in subject matter, *Imperial Homes* and other

118. 17 U.S.C. § 5(i) (1909); 35 C.F.R. § 202.12(a) (1959) (including “an architect’s blueprint” within § 5(i)); ARTHUR W. WEIL, *AMERICAN COPYRIGHT LAW* 218 (1917) (citing Copyright Office rules stating that “architects’ or engineers’ plans or designs” are protected under § 5(i)).

119. 17 U.S.C. § 5(g) (1909).

120. 17 U.S.C. § 102(a)(5) (2018). The 1976 Act did not initially specify that architectural plans were PGS works, Copyright Act of 1976, Pub. L. 94-553, 90 Stat. 2541 (1976), but its legislative history clearly indicated that they were. H.R. REP. NO. 94-1476, at 52, 55 (1976). Architectural plans were expressly added to the definition of pictorial, graphic, and sculptural works in 1988 shortly before the enactment of the AWCPA. Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, § 4(a)(1)(A), 102 Stat. 2853, 2854 (1988); S. REP. NO. 100-352 (1988).

121. Drawing protection under pre-AWCPA copyright is widely recognized as narrow in a different way: architects do not have an exclusive right to drawing-to-building copying. *See infra* notes 132–135 and accompanying text. However, the existence of an exclusive right to drawing-to-building copying *vel non* does not contribute to the building/drawing dichotomy. *See supra* notes 80–82 and accompanying text.

122. *See supra* notes 99–100 and accompanying text.

123. *See supra* Section II.B.

pre-AWCPA copyright cases ground the scope of protection that they offer to architectural drawings in a more controversial interpretation of *Baker*: the use/explanation distinction in copyright owners' rights.¹²⁴

Focusing on the allegation of infringement of the forms, rather than the text, in Selden's book, some language in *Baker* suggests that liability hinged on the way in which the public obtained value from the allegedly infringing copies. The forms could be used "for the purpose of practical application" as a bookkeeper fills a ledger with numbers and keeps the books of a company.¹²⁵ Here, the forms are functional tools with extra-linguistic, technological affordances:¹²⁶ they physically structure the placement of numbers and guide the data entry required to perform the bookkeeping method. This functional use of the forms is like the use of a shovel to dig a hole in the ground. Alternatively, the forms could be made "for the purpose of publication in . . . works explanatory of the art."¹²⁷ Here, the forms are teaching tools, informing the public about how to perform the method. *Baker* suggests that this use/explanation distinction determines whether copying constitutes a violation of Selden's rights. Copyright does not grant a copyright owner the right to control the making and distributing of the former copies that are intended for "practi[c]e and use [of] the [functional] art itself," but it does allow an author to control the making and distributing of the latter copies that are "intended to convey instruction in the art."¹²⁸

Interpreting *Baker* to generate the use/explanation distinction in authors' rights grants copyright protection to subject matter with functional properties, but then limits the reach of authors' exclusive rights with respect to that subject matter. Infringement becomes contingent on the purpose for which a copy is made.¹²⁹ Copiers infringe when they make copies only to exploit their explanatory, expressive, or aesthetic qualities, but copiers do not infringe when they make copies to take advantage of their functional attributes and extract their utilitarian value. When *Baker* is interpreted to yield the use/explanation distinction, the defendant "escaped copyright liability because [those who] used the forms [used them] as *tools* and not as [communicative] *works*."¹³⁰

124. See *supra* note 101.

125. *Baker v. Selden*, 101 U.S. 99, 103 (1879).

126. Technological affordances are action possibilities offered by an object, or more broadly the environment, to organisms. See JAMES J. GIBSON, *THE ECOLOGICAL APPROACH TO VISUAL PERCEPTION* 119 (2015).

127. *Baker*, 101 U.S. at 103.

128. *Id.* at 104.

129. Whether it is the intention of the copier when creating the copy or the actual way in which someone eventually extracts value from the copy that is important remains unclear.

130. DRASSINOWER, *supra* note 101, at 93. The "use/explanation" terminology is far from ideal. "Use" is presumed to be a functional use, so the common turn of phrase, "a copy is used to explain,"

Pre-AWCPA copyright cases regularly invoke the use/explanation distinction in *Baker* to shape the contours of architects' exclusive rights to their drawings.¹³¹ In doing so, however, they extend what was already a controversial interpretation of *Baker* by adding a new, not-so-straightforward twist. In *Baker*, the distinction turned on the non-reproductive way in which a defendant obtained value from an existing copy. Putting the form to a functional use excused the earlier copying, but employing it for explanatory purposes did not. The exact same copy of the forms, without any additional reproduction, could thus be noninfringing or infringing depending upon whether it was put to a functional use or employed in an expressive act, respectively. To craft the drawing protection granted by pre-AWCPA copyright, the courts morphed the use/explanation distinction into media discrimination in rights. They transformed a rule that hinges liability for infringement on how the public derives benefit from a copy (use v. explanation) into a rule that hinges liability on the medium of the copy that a defendant makes (building v. drawing).

Pre-AWCPA copyright deems constructing the building depicted in drawings to be a noninfringing "use" of the building design (at least assuming that the building lacks protectable, add-on embellishment).¹³² *DeSilva Construction Corp. v. Herald* appears to have been the first

must be abandoned. On the other side, "explanation" is not the only expressive purpose that legitimately lies within the copyright owner's control. Presumptively, copies made for the purpose of aesthetic enjoyment should be noninfringing, as well. The distinction might be more precisely drawn by contrasting functional and expressive uses of copies, but even these terms need further refinement. *See* Gordon, *supra* note 101, at 339–45.

131. Robert R. Jones Assocs., Inc. v. Nino Homes, 858 F.2d 274, 278–81 (6th Cir. 1988); Imperial Homes Corp. v. Lamont, 458 F.2d 895, 898–99 (5th Cir. 1972); Scholz Homes, Inc. v. Maddox, 379 F.2d 84, 85–86 (6th Cir. 1967); Richmond Homes Mgmt., Inc. v. Raintree, Inc., 862 F. Supp. 1517, 1524–25 (W.D. Va. 1994), *rev'd in part on other grounds*, 66 F.3d 316 (4th Cir. 1995); Demetriades v. Kaufmann, 680 F. Supp. 658, 663–66 (S.D.N.Y. 1988); Acorn Structures, Inc. v. Swantz, 657 F. Supp. 70, 75 (W.D. Va. 1987), *rev'd on other grounds*, 846 F.2d 923 (4th Cir. 1988); Herman Frankel Org. v. Tegman, 367 F. Supp. 1051, 1053–54 (E.D. Mich. 1973); DeSilva Constr. Corp. v. Herald, 213 F. Supp. 184, 195–96, 198 (M.D. Fla. 1962).

132. Although pre-AWCPA cases do not dwell on it, the absence of a right to control drawing-to-building copying also has independent statutory origins in the 1909 Act. The 1909 Act granted authors of "models or designs for works of art" exclusive rights not only to copy but also "to complete, execute, and finish" the works of art. Copyright Act of Mar. 4, 1909, ch. 320, § 1(b), 5(g), 35 Stat. 1075, 1076, *repealed by* Copyright Act of 1976, 90 Stat. 2541. In contrast, copyright in "[d]rawings or plastic works of a scientific or technical character," including architectural plans, gave authors the exclusive right to copy but was silent on the exclusive right to execute their works. *Id.* §§ 1(b), 5(i). By negative implication, the 1909 Act did not grant an execution right to these authors. STUDY NO. 27, *supra* note 114, at 70. One small puzzle is why most pre-AWCPA copyright cases trace the absence of an exclusive right to drawing-to-building copying to *Baker* rather than to the statutory structure of the 1909 Act. The answer appears to lie in the fact that cases involving drawing-to-useful-article copying arose outside of architecture decades before the courts had to grapple with the issue in the architecture context. *See infra* note 134 and accompanying text. Many of the non-architecture cases involve artistic drawings ("works of art") rather than technical drawings. This made the absence of a statutory execution right for technical drawings in the 1909 Act irrelevant. These non-architecture cases relied instead on *Baker*, and they then served as precedent for the issue when it arose in architectural cases involving technical drawings.

architecture case to expressly state this rule.¹³³ It notes that “the architect does not have the exclusive right to build structures embodied in his technical writings,” and, based on earlier cases involving drawings of non-architectural useful articles, it even presents the “legal principle that the building of a structure from copyrighted architectural plans is not an infringement of the [copyright in the] architectural plans themselves” as already “established.”¹³⁴ An exclusive right to drawing-to-building copying would create a *de facto* monopoly on the functional building depicted in the drawing, at least until a building that can be freely reverse-engineered exists. To ensure that patent law sets the requirements for protection of functional innovation, constructing a functional building is the kind of activity to which only a patent should be able to grant an exclusive right. As *Imperial Homes* later noted, “no copyrighted architectural plans . . . may clothe their author with the exclusive right to reproduce the dwelling pictured” in a drawing because “copyright privileges” in drawings should not “vest[] exclusive use rights which only a patent could confer.”¹³⁵

More critically to the drawing side of the building/drawing dichotomy, most courts interpreting pre-AWCPA copyright deem drawing-to-drawing copying to be a *per se* communicative act. This means that architects can have an exclusive right to drawing-to-drawing copying without copyright encroaching on the proper domain of patent law *even when the copying only implicates features of building designs that are not protected when fixed in buildings*. As one court applying the building/drawing dichotomy noted,

133. *DeSilva Constr. Corp.*, 213 F. Supp. at 195–98. *DeSilva* addresses the question of what constitutes a publication under common law copyright. *Id.* at 194; *see also* Donald Frederick Evans & Assocs., Inc. v. Cont’l Homes, Inc., 785 F.2d 897, 901 n.7 (11th Cir. 1986) (“[W]e do not consider the public display of a model home to constitute a publication of the architectural drawings from which it was constructed.”). It is worth noting that the absence of an execution right benefits, rather than disadvantages, architects in this context: if architects cannot control the construction of a building from plans, then a building cannot amount to a publication of the plans that divests common-law copyright. *Cf. supra* note 117 (discussing the gap between common-law and statutory copyright under the 1909 Act).

134. *DeSilva Constr. Corp.*, 213 F. Supp. at 195–98. To support the “established” description, *DeSilva* cites “the unanimous view of respected text writers,” and these writers, in turn, cite cases involving drawings of non-architectural useful articles. *Id.* at 195–96; *see also* STUDY NO. 27, *supra* note 114, at 69–70 (reviewing case law involving non-architectural useful articles and reaching the same conclusion). Many of these cases, some of which are also directly cited in *DeSilva*, rely on *Baker* to support their analyses. *See* *Fulmer v. United States*, 103 F. Supp. 1021, 1022 (Ct. Cl. 1952); *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298, 299 (S.D.N.Y. 1942); *Jack Adelman, Inc. v. Sonners & Gordon, Inc.*, 112 F. Supp. 187, 188–89 (S.D.N.Y. 1934); *Nat’l Cloak & Suit Co. v. Kaufman*, 189 F. 215, 217, 219 (M.D. Pa. 1911); *Nat’l Cloak & Suit Co. v. Standard Mail Order Co.*, 191 F. 528 (S.D.N.Y. 1911); *Lamb v. Grand Rapids Sch. Furniture Co.*, 39 F. 474 (W.D. Mich. 1889).

135. *Imperial Homes*, 458 F.2d at 899; *see also* *Tegman*, 367 F. Supp. at 1053 (“A person cannot, by copyrighting plans, prevent the building of a house similar to that taught by the copyrighted plans. One does not gain a monopoly on the ideas expressed [i.e., functional features contained] in the copyrighted material by the act of registering them for copyright.”).

copyright in cases alleging drawing-to-drawing copying of building designs “protects against copying of copyrighted material, yet does not change the copyright act into a patent act and give the person holding the copyright a monopoly on the [functional] ideas there expressed.”¹³⁶ The theory at work here is that, unlike a building (or apparel, furniture, shovels, or even the bookkeeping ledger at issue in *Baker*), a representational drawing has no technological affordances.¹³⁷ It is never a tool,¹³⁸ it performs only in the linguistic sense that it explains through language and symbols to a human reader.¹³⁹ Copying an architectural drawing into a new drawing is thus always an expressive act that is done for the purpose of explaining how to construct a building. This is true even when a builder makes drawing-copies of plans for use on a job site to guide construction: the plans do nothing but convey information to the builder.¹⁴⁰ Representations of functional features are not functional in the patent sense, meaning that a copyright that allows an author to control the reproduction and distribution of representations does not grant patent-like rights.

Not all courts, however, read *Baker* in this manner to support the expansive scope of drawing protection that leads to the building/drawing dichotomy. In *Scholz Homes, Inc. v. Maddox*, the Court of Appeals for the Sixth Circuit focuses on a passage in *Baker* that hints at the eventual development of the merger doctrine.¹⁴¹ *Baker* states that when the functional art a book “teaches cannot be used without employing the . . . diagrams [i.e., forms] used to illustrate the book, or such as are similar to them, such . . . diagrams are to be considered as necessary incidents to the art, and given therewith to the public.”¹⁴² *Scholz Homes* relies on this passage to argue that

136. *Tegman*, 367 F. Supp. at 1054 (citing *Baker v. Seldon*, 101 U.S. 99 (1879)); see also *Imperial Homes*, 458 F.2d at 899 (“[N]othing in *Baker v. Selden* prevents . . . a copyright from vesting the law’s grant of an exclusive right to make copies of the copyrighted plans so as to instruct a would-be builder on how to proceed to construct the dwelling pictured.”).

137. See *supra* note 126 and accompanying text.

138. See *supra* note 130 and accompanying text.

139. This semiotic performance is central to copyright’s conception of authorship and antithetical to patent law’s conception of usefulness, utility, or functionality. See Collins, *supra* note 103, at 1640–42; Kevin Emerson Collins, *Semiotics 101: Taking the Printed Matter Doctrine Seriously*, 85 IND. L.J. 1379 (2010).

140. The result might be different if a drawing were a self-executing file for a house-sized 3D printer. Such a file would both represent in a semiotic sense and have the technological affordances of a tool.

141. *Scholz Homes, Inc. v. Maddox*, 379 F.2d 84, 85–86 (6th Cir. 1967). The merger doctrine is a refinement to the idea/expression dichotomy. If the public’s use of an unprotected idea requires use of what would normally be protected expression, then the idea and expression have merged, and the expression is not protected to ensure that the public has free access to the unprotected idea. See *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675 (1st Cir. 1967). *Baker* is sometimes cited as the genesis of the merger doctrine, but it arguably has little to do with the idea/expression dichotomy (and thus the merger doctrine). See Samuelson, *Frontiers*, *supra* note 99, at 1953–61.

142. *Baker v. Seldon*, 101 U.S. 99, 103 (1879). This refines rather than supplants the use/explanation dichotomy because it continues: such methods and diagrams are “not given for the

true fidelity to *Baker* would deny copyright owners an exclusive right to control most drawing-to-drawing copying:

Baker would seem to go farther than [denying only an exclusive right to drawing-to-building copying] by permitting the copying of the plans themselves. . . . [I]f architectural plans are to be treated in the same way as “a book on science or the useful arts,” then *Baker* would seem to permit the making of plans [to be used in construction] as well as the construction of buildings.¹⁴³

Scholz Homes thus reads *Baker* to require drawing-to-drawing copies made for the purpose of constructing a building to be functional “uses” that lie beyond the reach of architects’ exclusive rights.¹⁴⁴ Only drawing-to-drawing copying performed for the enjoyment or edification of the non-building-constructing public, such as for publication in coffee-table books and perhaps advertising brochures, would lie within the architect’s control.¹⁴⁵

Although *Scholz Homes* puts forward this narrow protection as the proper interpretation of the use/explanation distinction in *Baker*, it does not embrace the narrow protection as a policy matter.¹⁴⁶ To the contrary, it expounds on how this result would eviscerate the economic value of

purpose of publication in other works explanatory of the art, but for the purpose of practical application.”
Id.

143. *Scholz Homes*, 379 F.2d at 85–86.

144. The holdings of some outlier pre-AWCPA copyright cases echo this view. *Acorn Structures, Inc. v. Swantz*, 657 F. Supp. 70, 75 (W.D. Va. 1987) (“[P]reparing a derivative work and filing such plans with the Building and Permits Office is simply a necessary incident to building the structure depicted in the plans, and does not constitute a copyright infringement.”), *rev’d on other grounds*, 846 F.2d 923 (4th Cir. 1988). Some non-architectural useful articles cases, too, echo the *Scholz Homes* dicta. *See* *RJ Control Consultants, Inc. v. Multitject, LLC*, No. 16-10728, 2018 WL 5840736, at *3–5 (E.D. Mich. Nov. 11, 2018) (finding no liability for copying technical drawings when those drawings are subsequently used to manufacture the useful articles depicted in the drawings). Other cases involving non-architectural useful articles conclude that there is no liability for drawing-to-useful-article copying without addressing the drawing-to-drawing copying that very likely had to occur to manufacture the useful article. *See, e.g., Fulmer v. United States*, 103 F. Supp. 1021 (Ct. Cl. 1952) (camouflage parachute); *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298 (S.D.N.Y. 1942) (automotive bridge approach). Although they are ambiguous, these cases can also be read as consistent with the *Scholz Homes* dicta.

145. Even the advertising brochure could be beyond copyright’s proper reach. At least one early case held that illustrations that depict a useful article are necessary incidents to the manufacture and sale of the useful article. *Lamb v. Grand Rapids Sch. Furniture Co.*, 39 F. 474, 475 (W.D. Mich. 1889) (“To say that the defendant has not the right to publish correct illustrations of its goods must practically result in creating a monopoly, in goods modeled on those designs, in the complainants, and thus give all the benefits of a patent upon unpatented and unpatentable articles.”). *Scholz Homes* also suggests that the sale of copies could give rise to infringement. *Scholz Homes*, 379 F.2d at 86.

146. *Scholz Homes* held that publication without notice invalidated the copyright in the plaintiff’s drawings, making the entire discussion of the scope of copyright in the drawings dicta. *Scholz Homes*, 379 F.2d at 86–87.

architectural copyright,¹⁴⁷ and it then muses on what preferable alternatives could be adopted instead by departing from *Baker*.¹⁴⁸ One of these alternatives should sound familiar: “if *Baker* is followed to the extent of holding that the possession of the copyright in the plans gives no exclusive right to construct the building, then protection could be provided by [departing from *Baker* and] declaring the making of unauthorized copies of the plans to be an infringement.”¹⁴⁹ *Scholz Homes* suggests adopting the building/drawing dichotomy not because of *Baker* but rather despite *Baker*.

The building/drawing dichotomy re-emerges here not as an outgrowth of the doctrinal logic of copyright but rather as a form of rough economic justice. Given that the absence of building protection and an exclusive right to drawing-to-building copying significantly diminishes the value of architectural copyright, media discrimination in subject matter is a pragmatic, if conceptually awkward, way of strengthening architects’ weak position.¹⁵⁰

The *Scholz Homes* dicta also emphasizes that subsuming the building/drawing dichotomy within the literature addressing copyright’s weakness in the face of functionality would mischaracterize the dichotomy’s true nature.¹⁵¹ Drawing protection is actually quite expansive under pre-AWCPA copyright (at least in cases alleging drawing-to-drawing copying); copyright would steer yet farther away from protection for

147. *Id.* at 86. Other courts also reject the *Scholz Homes* interpretation in favor of the building/drawing dichotomy on normative grounds. *See, e.g., Demetriades v. Kaufmann*, 680 F. Supp. 658, 665–66 (S.D.N.Y. 1988) (“The *Scholz Homes* dictum, if adopted, would literally render plaintiffs’ copyright in this case a nullity. Such a holding would subvert Congress’s express and unequivocal intent to include architectural plans as proper subjects for copyright This court cannot countenance such a result”). The *Scholz Homes* interpretation would come close to answering in the affirmative a question that some pre-AWCPA copyright cases quote from the Nimmer treatise: “[A]re there some works . . . which by their very nature may be copied only for purposes of use and not for purposes of explanation, so that to deny liability by reason of copying [for use] is in effect if not in theory to deny copyrightability?” *Robert R. Jones Assocs., Inc. v. Nino Homes*, 858 F.2d 274, 279 n.3 (6th Cir. 1988) (quoting NIMMER & NIMMER, *supra* note 40, § 2.08[D][1]); *see also Demetriades*, 680 F. Supp. at 665.

148. One possibility mentioned, and apparently championed by the Nimmer treatise at the time, was to grant architects an exclusive right to drawing-to-building copying and thereby further heighten the building/drawing dichotomy. *Scholz Homes*, 379 F.2d at 86 & n.2.

149. *Id.* at 86.

150. Market-buffer theory here plays a role that is turned on its head from the role it usually plays in discussions of media discrimination in subject matter. Media discrimination in subject matter is usually perceived as a threat to the sufficient incentives. *See supra* note 64 and accompanying text. This argument takes protection for a work in all media as the media-neutral baseline. The historical evolution of the building/drawing dichotomy starts with almost the opposite media-neutral baseline—close to no effective protection for architectural works in any medium. Thus, *Scholz Homes* suggests adopting media discrimination in subject matter in order to ensure that architects have at least some incentives to create.

151. The dimension on which drawing protection is expansive is not a necessary corollary of copyright’s refusal to protect functional articles; the building/drawing dichotomy is not simply a rule that does everything it can to keep copyright protection from granting patent-like rights.

functionality if pre-AWCPA copyright had followed the *Scholz Homes dicta*.¹⁵²

b. Non-Architectural Useful Articles

The historical origins of the building/drawing dichotomy of pre-AWCPA copyright are deeply enmeshed with policy concerns about copyright protection for functionality. One might therefore reasonably expect the dichotomy to be a particular example of a broader useful-article/drawing dichotomy, no different in kind from a clothing/drawing, furniture/drawing, or shovel/drawing dichotomy. In many respects, copyright law bears out this expectation. With respect to building protection, buildings are useful articles, so the statutory regime governs both buildings and non-building useful articles.¹⁵³ With respect to drawing protection, the logic of *Baker's* use/explanation distinction applies with equal force to drawings of all useful articles.¹⁵⁴ In fact, the early cases establishing the absence of an exclusive right to drawing-to-building copying rely on non-architectural useful articles cases as guiding precedent.¹⁵⁵

However, looking specifically at the historical non-architecture cases that address drawing-to-drawing copying, it is interesting to note that they can all be explained by the narrower, media-neutral rule discussed above under which protection extends only to rendition expression.¹⁵⁶ None provide strong support for media discrimination in subject matter or a useful-article/drawing dichotomy.¹⁵⁷

152. The same point can be made with respect to the alternative, media-neutral path that architectural copyright could have followed by not protecting the features of building designs in any medium. *See supra* Section II.B.

153. *See supra* Section II.C.2.

154. *See supra* Section II.B.3.a. Furthermore, if the 1976 Act codifies the drawing side of the dichotomy, it speaks with equal force to all useful articles. *See infra* Section II.C.3.c.

155. *See supra* note 134 and accompanying text.

156. *Nat'l Cloak & Suit Co. v. Standard Mail Order Co.*, 191 F. 528 (S.D.N.Y. 1911); *Nat'l Cloak & Suit Co. v. Kaufman*, 189 F. 215 (M.D. Pa. 1911); *Lamb v. Grand Rapids Sch. Furniture Co.*, 39 F. 474 (W.D. Mich. 1889).

157. None allege that copying could have been accomplished through useful-article-to-drawing copying rather than drawing-to-drawing copying. *Cf. supra* note 88 and accompanying text. None discuss a useful article's unprotected features when assessing substantial similarity between drawings. *Cf. supra* note 89 and accompanying text. None involve highly schematic drawings rather than artistic renderings. *Cf. supra* note 90 and accompanying text. However, a more recent case that leaves open the possibility of liability based on drawing-to-drawing copying of a highly schematic drawing of a non-architectural useful article is *Forest River, Inc. v. Heartland Recreational Vehicles, LLC*, 753 F. Supp. 2d 753, 760 (N.D. Ind. 2010) (refusing to grant summary judgment to defendants based on an allegation of drawing-to-drawing copying of the schematic floor plans of recreational vehicles into a derivative work).

For example, consider *National Cloak & Suit Co. v. Kaufman*, a case that lies near the beginning of the line of cases delineating authors' rights in drawings of useful articles.¹⁵⁸ National Cloak & Suit produced a periodical "portraying original conceptions and creations relating to wearing apparel" in order to market said apparel.¹⁵⁹ The illustrations involved "large outlays and expenditures" for "artists and authors of peculiar skill and ability;" they "embodied the personal reaction of artists of recognized skill in their calling, and were pictures of artistic merit."¹⁶⁰ Kaufman was alleged to have copied these illustrations in the course of establishing a competing business offering the same or similar clothes for sale. The court made clear that copyright did not extend to the apparel itself,¹⁶¹ but it granted National Cloak & Suit exclusive rights to their drawings depicting the apparel. National Cloak & Suit is "entitled" to "the right . . . to prevent others from copying [into new drawing-copies] and appropriating its exclusive property in such pictures."¹⁶²

National Cloak & Suit resonates more with the restrictive, media-neutral rule of drawing protection that only extends to rendition expression than it does with the expansive, media-discriminatory rule of drawing protection of pre-AWCPA copyright that protects rendition expression as well. The fact that the copied drawings "embodied the personal reaction of artists of recognized skill in their calling, and were pictures of artistic merit"¹⁶³ suggests that the illustrations contained significant amounts of original rendition expression. Liability for drawing-to-drawing copying could easily exist even if copyright did not protect any representational content at all. National Cloak & Suit's "exclusive property in such pictures"¹⁶⁴ could easily reside not in copying what the drawings portrayed (the articles as representational content) but rather how the articles were portrayed (rendition expression).¹⁶⁵ *National Cloak & Suit* may invoke *Baker* not to support a use/explanation distinction in authors' rights but rather a categorical exclusion of the useful features of clothing from protected

158. *Kaufman*, 189 F. 215.

159. *Id.* at 216.

160. *Id.*

161. *Id.* at 219 ("The complainant does not claim to monopolize the manufacture and sale of the wearing apparel depicted by reason of its copyright.").

162. *Id.*

163. *Id.* at 216.

164. *Id.* at 219.

165. For a more contemporary case in which it is clear that liability could also hang on the copying of rendition expression alone, see *Habersham Plantation Corp. v. Country Concepts*, No. C80-14G, 1980 WL 1161 (N.D. Ga. Apr. 14, 1980). In *Habersham Plantation*, the allegedly infringing furniture drawings "depict the furniture positioned in precisely the same arrangement and set at precisely the same angle to the viewer as those in plaintiff's catalog." *Id.* at *1. The plaintiff's photographs were taken with a lens that distorts the perspective, and the same distortion is present in the defendant's drawings. *Id.* The arrangement of throw pillows is also the same. *Id.*

subject matter with a functionality screen.¹⁶⁶ *National Cloak & Suit* states it is important to avoid “confusion of the pictures with the things they depict in a particular way; that is, the wearing apparel which appears in the illustration as part of the pictures.”¹⁶⁷ The unprotected design of the apparel, which exists in copies both outside of the pictures (the articles of clothing themselves) and within the pictures as representational content, needs to be kept distinct from protection for the “particular way” in which the apparel is shown in the pictures. Recast in the terms used here, *National Cloak & Suit* can most readily be read to state that copyright protects only the rendition expression wound up with how the design of apparel is shown in drawings. The case need not be read to establish protection for the design of apparel itself, regardless of whether it is fixed in clothing that can be worn or a drawing’s representational content.

c. Possible Statutory Codification in the 1976 Act

Many aspects of pre-AWCPA copyright eventually obtain clear statutory bases in the 1976 Act. Returning to Figure 1, the exclusion of buildings from protected subject matter in the top row arises from the useful articles doctrine.¹⁶⁸ The absence of an exclusive right to drawing-to-building copying in Box 3, too, has a textual basis in a grandfather clause.¹⁶⁹ Yet, while the 1976 Act clearly requires some protection for drawings in Box 4,¹⁷⁰ the codification of the expansive scope of drawing protection in cases alleging drawing-to-drawing copying that protects features of building designs that are unprotected when fixed in buildings is more tenuous.

Prominent copyright treatises argue that the statutory definition of a useful article requires the media discrimination in subject matter imposed

166. Cf. *supra* notes 99–100 and accompanying text (discussing the subject-matter interpretation of *Baker*).

167. *Kaufman*, 189 F. at 219.

168. See *supra* notes 108–116 and accompanying text. In the 1909 Act, the absence of building protection is grounded in the Act’s narrowly defined categories of works of authorship. See *supra* notes 104–107 and accompanying text.

169. The 1976 Act codifies the absence of an exclusive right to drawing-to-building copying with a grandfather clause in Section 113(b). 17 U.S.C. § 113(b) (2018) (“This title does not afford, to the owner of copyright in a work that portrays a useful article as such, any greater or lesser rights with respect to the making, distribution, or display of the useful article so portrayed than those afforded to such works under the law . . . in effect on December 31, 1977 . . .”). Section 113(b) does not codify the drawing side of the building/drawing dichotomy; it says nothing about the scope of drawing protection in cases involving drawing-to-drawing copying. For the basis of the absence of an exclusive right to drawing-to-building copying in the 1909 Act, see *supra* note 132.

170. See *supra* note 120 and accompanying text. The 1909 Act, too, requires drawing protection of some kind for building designs. See *supra* notes 118–119 and accompanying text.

by the building/drawing dichotomy.¹⁷¹ Useful articles are “article[s] having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information.”¹⁷² Under this definition, buildings are useful articles, but drawings that represent buildings are not. A drawing’s utility lies entirely in its “function” of portraying the appearance of the building and conveying information about the building.¹⁷³ Assuming that the useful articles doctrine only applies to useful articles, the argument concludes that the scope of copyright in architectural drawings is “immunized from attack on the basis of [the drawings’ representation of] utilitarian content” under the useful articles doctrine because drawings are not useful articles.¹⁷⁴ Following this reasoning, copyright does not protect features of pre-AWCPA building designs when they are fixed in buildings because buildings are useful articles, but it does protect those same features when they are fixed in drawings because drawings are not useful articles.

This codification argument, however, does not track the actual text of the useful articles doctrine in the 1976 Act. The assumption that the useful articles doctrine only limits the copyright protection granted to three-dimensional, useful articles is suspect. According to the statutory text, the useful articles doctrine applies to the *design* of a useful article—that is, as a work—not to a useful article as a particular type of copy of a design. The Act states: “the *design* of a useful article . . . shall be considered a [PGS] work only if, and only to the extent that, such *design* incorporates [PGS] features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.”¹⁷⁵ The design of a useful article exists both in three-dimensional, functional articles and drawings that represent those three-dimensional, functional articles, meaning that the useful articles doctrine should apply in a media-neutral manner. If Congress had intended to codify the expansive protection for drawings that courts granted in cases alleging drawing-to-drawing copying such as *Imperial Homes*, the text should have stated more simply that “a *useful article* . . . shall be considered a [PGS] work if, and only to the extent that, such *useful article* incorporates [PGS] features that can be identified separately from, and are capable of existing independently of, the utilitarian

171. GOLDSTEIN, *supra* note 83, § 2.15.1.2; *see also* NIMMER & NIMMER, *supra* note 40, § 2A.09[A][1][a]. Judicial opinions also interpret the definition of a useful article in this manner. *See* Eales v. Envtl. Lifestyles, Inc., 958 F.2d 876, 879–80 (9th Cir. 1992).

172. 17 U.S.C. § 101 (2018).

173. This point mirrors the argument explaining why engaging in drawing-to-drawing copying of architectural drawings is a *per se* explanatory or communicative act and is thus within the copyright owner’s exclusive rights under the media-dependent interpretation of *Baker*’s use/explanation distinction in pre-AWCPA copyright cases. *See supra* notes 136–140 and accompanying text.

174. GOLDSTEIN, *supra* note 83, § 2.15.1.2.

175. 17 U.S.C. § 101 (2018) (emphasis added) (defining a PGS work).

aspects of the article.” Whether the 1976 Act codifies the drawing side of the building/drawing dichotomy thus remains, at best, an open question.¹⁷⁶

D. *The AWCPA*

The AWCPA altered copyright protection for the designs of buildings created on or after December 1, 1990 from the pre-AWCPA baseline in a number of ways. Most importantly for the argument here, the AWCPA eliminates the building/drawing dichotomy and its media discrimination in subject matter.¹⁷⁷ It adds “architectural works” as a new category of works of authorship.¹⁷⁸ It expressly defines architectural works in a media-neutral manner to include both buildings and drawings of buildings,¹⁷⁹ and it subjects them to a *sui generis* functionality screen that precludes protection for the features of architectural works that are “functionally required” in buildings.¹⁸⁰ The AWCPA thus identifies a single set of features of an architectural work that cannot be protected, regardless of whether they are fixed in buildings or drawings.¹⁸¹

176. Even if it does not, the pre-AWCPA cases that gave rise to the drawing side of the building/drawing dichotomy likely remain good law.

177. *But see infra* notes 186–189 and accompanying text (suggesting that media discrimination may persist even after the enactment of the AWCPA).

178. 17 U.S.C. § 102(a)(8) (2018).

179. 17 U.S.C. § 101 (2018); *cf. Shine v. Childs*, 382 F. Supp. 2d 602, 609 (S.D.N.Y. 2005) (holding that a three-dimensional model embodies an architectural work). An earlier bill only referred to architectural works as embodied in buildings. H.R. REP. NO. 101-735, at 19 (1990).

180. The functionally-required functionality screen is not codified in the copyright statute. It only appears in the AWCPA’s legislative history. H.R. REP. NO. 101-735, at 20–21. It is, like the useful articles doctrine, a filtering screen. *Buccafusco & Lemley, supra* note 100, at 1338–41.

181. The AWCPA does codify one form of media discrimination in subject matter. Architects lack exclusive rights to transform architectural works fixed in buildings into derivative works through renovation, destruction, and addition. 17 U.S.C. § 120(b) (2018). The statute says nothing about denying architects exclusive rights to transform architectural works fixed in drawings into derivative works.

The AWCPA also has a provision that codifies media discrimination in rights rather than subject matter. *Cf. supra* Section I.A (distinguishing media discrimination in rights and subject matter). The AWCPA provides that architects lack exclusive rights to prevent the reproduction, distribution, or public display of photographs of architectural works, provided “the building in which the work is embodied is located in or ordinarily visible from a public place.” 17 U.S.C. § 120(a) (2019). Making building-copies is not permitted without the copyright owner’s permission, but making photograph-copies from public places is. This provision raises an interesting question at the intersection between rights and subject-matter discrimination: Is the architectural work still protected subject matter in a noninfringing photograph? *Cf. supra* note 61 and accompanying text (discussing this same conceptual difficulty at the boundary of media discrimination in rights and subject matter). A basic principle of copyright infringement holds that “[t]here is a transitive property to actual copying: if work A is an actual copy of work B, and work B is an actual copy of work C, then work A is deemed an actual copy of work C.” *Well-Made Toy Mfg. Corp. v. Goffa Int’l Corp.*, 210 F. Supp. 2d 147, 165 (E.D.N.Y. 2002). This principle is generally applied in situations in which work B infringes the copyright in work A (or would, at least, if it were not licensed). On the assumption that it also applies when work B lies beyond the rights of the owner of the copyright in work A, then it implies that § 120(a) creates media discrimination in rights without media discrimination in subject matter. Someone can be held liable for creating a

The media-neutral protection available for the design of buildings as AWCPA architectural works is in some ways stronger than the protection available for them under pre-AWCPA copyright. By shifting the functionality screen for buildings from the separability test of the useful articles doctrine to the functionally required test, the AWCPA expands the set of protected features of a building design fixed in a building.¹⁸² It also grants architects the exclusive rights to drawing-to-building copying that they lacked under pre-AWCPA copyright.¹⁸³

While these increases in the strength of architectural copyright rightly receive top billing in most commentary on the AWCPA,¹⁸⁴ it is also important to note an underappreciated way in which the AWCPA provides weaker protection than pre-AWCPA copyright does. The scope of protection granted to drawings in drawing-to-drawing copying cases has, in theory, shrunk. The drawing side of the building/drawing dichotomy protects all of a drawing's representational content, including illustrations of the features of building designs that are not protected when they are fixed in buildings. In other words, functionality is not a limit on the scope of protection of pre-AWCPA architectural drawings. In contrast, functionality does limit the protection that the AWCPA grants to drawings: functionally required features of building designs are not protected when fixed in either buildings or drawings.¹⁸⁵

This would be a tidy place to wrap up the discussion of AWCPA copyright, but there is one last wrinkle to acknowledge. The AWCPA clearly creates the new subject-matter category of architectural works and institutes media-neutral protection for it. However, architects designing today may still be able to benefit from the expansive scope of drawing

duplicate of a copyrighted building (work C) even though they copy a copyrighted building design (work A) from photographs (work B) that are noninfringing because of § 120(a).

182. Buccafusco & Lemley, *supra* note 100, at 1339 (noting that “works that never would have passed the separability test will be protected” under the AWCPA). The shift in the scope of building protection appears to be large. Courts applying the AWCPA rarely cite functionality as a stand-alone justification for refusing to protect features of architectural works. However, the shift could alternatively be small. Courts do regularly limit the scope of protection granted by the AWCPA to architectural designs by using copyright doctrines other than the functionally required test, such as originality, the idea/expression dichotomy, and scenes-a-faire. *See, e.g.*, *Design Basics, LLC v. Lexington Homes, Inc.*, 858 F.3d 1093, 1100–05 (7th Cir. 2017); *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 105–06 (2d Cir. 2014). These other conventional doctrines could be the functionally required test dressed up in different rhetorical guises.

183. *See supra* notes 71–73, 132–135 and accompanying text.

184. The AWCPA is often understood to create the “full” rights that other authors receive rather than the atypically meager rights of pre-AWCPA copyright. MARSHALL A. LEAFFER, *UNDERSTANDING COPYRIGHT LAW* 130 (5th ed. 2010).

185. Because it is inversely related to the increase in the scope of building protection, the decrease in the scope of drawing protection in cases alleging drawing-to-drawing copying upon the shift from pre-AWCPA copyright to the AWCPA appears to have been small (although there is some doubt on the issue). *See supra* note 182.

protection in cases alleging drawing-to-drawing copying available under pre-AWCPA copyright. The AWCPA did not remove building designs fixed in architectural drawings from the category of PGS works.¹⁸⁶ If an architect registers a technical drawing of a building design as a PGS work, they receive the equivalent of pre-AWCPA copyright protection.¹⁸⁷ Because architects can concurrently register their building designs both as architectural works and PGS works,¹⁸⁸ they can, in theory, get protection for features of building designs that are functionally necessary when those features are fixed in drawings through the PGS registration, even though they cannot get protection for those features when they are fixed in buildings through either registration.¹⁸⁹

III. THE DICHOTOMY'S TRANSACTIONAL VIRTUES

This Part examines copyright for custom architectural design in a novel normative framework, taking the transactional theory, not the market-buffer theory, to be the polestar guiding the reach of copyright protection. It argues

186. See *T-Peg, Inc. v. Vt. Timber Works, Inc.*, 459 F.3d 97, 109–10 (1st Cir. 2006). The legislative history states that the AWCPA does not affect the previously available protection for building designs fixed in drawings under § 102(a)(5). H.R. REP. NO. 101-735, at 19 (1990). Whether the AWCPA eliminates protection as a PGS work for portions of a building design that are conceptually separable under the useful articles doctrine presents a difficult question. A panel of the Court of Appeals for the Ninth Circuit fractured into three separate opinions on this issue in *Leicester v. Warner Bros.*, 232 F.3d 1212 (2000).

187. The AWCPA's legislative history notes one exception to this general rule: the monumental, nonfunctional structures that had been separable under the useful articles doctrine and thus protected under § 102(a)(5) are "architectural works, and as such, will no[w] be protected exclusively under section 102(a)(8)." H.R. REP. NO. 101-735, at 20 n.43. The report uses the word "not," but it is a typo that should read "now." *Leicester*, 232 F.3d at 1224 (Tashima, J., concurring); *id.* at 1231 n.10 (Fisher, J., dissenting).

188. The legislative history of the AWCPA recognizes the possibility of two separate copyrights in a single work. H.R. REP. NO. 101-735, at 19. The Register of Copyright allows dual registration. U.S. COPYRIGHT OFFICE, *supra* note 13, at 3.

189. The media discrimination that persists under the AWCPA applies to fewer features of building designs—only those that are functionally necessary—so it is not as economically significant as the media discrimination that exists under pre-AWCPA copyright. *Cf. supra* note 182 (noting that almost no features of a building design have been explicitly identified as functionally necessary).

Paul Goldstein suggests that dual registration of a building design in an architectural drawing as both an architectural work and a PGS work should not permit expansive protection that encompasses representations of the building's functional features. The argument is that there are limitations on copyright protection other than the useful articles doctrine that prevent protection for architectural drawings from extending to functionally necessary features. GOLDSTEIN, *supra* note 83, § 2.15.1.2. The most logical candidate is § 102(b), which states that "[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery." 17 U.S.C. § 102(b) (2018); *cf. Samuelson, Frontiers, supra* note 99, at 1974–77 (discussing many possible applications of § 102(b)). This theory, however, may prove too much. Its logical conclusion seems to be that the expansive drawing protection in cases alleging drawing-to-drawing copying that constitutes the drawing side of the building/drawing dichotomy of pre-AWCPA copyright is, and always has been, legal error, at least since the 1976 Act enacted § 102(b).

that the building/drawing dichotomy and its media discrimination in subject matter are good policy when copyright's principal task is to facilitate the architect-client transaction, rather than to provide *ex ante* incentives by tamping down on copying by strangers. In a more abbreviated argument, it also suggests that this transactional goal should be the primary objective of copyright in custom architecture.

One ramification of reframing the building/drawing dichotomy as a way of optimizing copyright to the demands of transactional theory is important to note at the outset. Concerns about copyright protection for functional artifacts made the conditions ripe for the development of the building/drawing dichotomy as a historical matter,¹⁹⁰ but these concerns are largely irrelevant to why the building/drawing dichotomy is good policy from a transactional perspective.¹⁹¹

The argument proceeds in four steps. Section III.A introduces the transactional theory as a normative ground for copyright. Copyright can facilitate transactions between willing market partners by overcoming the disclosure dilemmas caused by Arrow's information paradox. Section III.B demonstrates that copyright in custom architecture has significant social value under the transactional theory. The architect-client transaction that lies at the heart of the architectural profession creates disclosure dilemmas, and copyright helps to resolve them. Section III.C argues that the building/drawing dichotomy and its media discrimination in subject matter tailor copyright to the transactional theory. Eliminating building protection while preserving drawing protection leads to a win-tie scenario under the transactional theory's cost-benefit calculus: it reduces copyright's access costs without reducing copyright's transactional benefits. Section III.D argues that tailoring architectural copyright to the transactional theory is likely a good idea because building protection does not generate significant benefits under the market-buffer theory. Combined, these two sections demonstrate that the building/drawing dichotomy is good policy under a pluralistic utilitarian justification of copyright that takes both the transactional and incentive theories into account.¹⁹² Finally, Section III.E

190. See *supra* Section II.C.

191. The template for justified media discrimination in subject matter that the building/drawing dichotomy provides is not limited to fields in which the articles sold to consumers have functional properties. See *infra* notes 332-335 and accompanying text. *But cf. supra* note 25 (noting how the functionality of buildings makes an indirect contribution to the transactional justification of the building/drawing dichotomy).

192. Prospect theory offers a third utilitarian justification for copyright. Giving a single entity rights to coordinate the development of a nascent work (a "prospect") into a diverse array of derivative works and commercialized goods eliminates the waste that inheres in competitive development. See Kitch, *supra* note 5, at 266 (developing prospect theory in the context of patents); Lemley, *supra* note 3, at 1044-47 (considering prospect theory as a justification for copyright's treatment of derivative works).

sounds a note of caution about returning to pre-AWCPA copyright because architectural copyright governs both custom and stock building designs.

A. *The Transactional Theory*

Copyright produces a social benefit under the transactional theory because it facilitates transactions in which authors sell their works when knowledge of the work is not widely known or easily ascertained. These transactions are *sales of works as information commodities*. Sales of works as information commodities help authors to bring works that have already reached their earliest stage of conception through the development and commercialization processes required to produce the marketable copies of works that consumers desire. Authors may require capital to refine and commercialize a work.¹⁹³ They may need to outsource particular functions or inputs in the supply chain to efficiently refine and commercialize works because bringing them in house is costly.¹⁹⁴ They may want to sell the entire work to a more efficient commercializer.

Sales of works as information commodities can be delicate affairs in a world without copyright, and Arrow's information paradox captures the trickiness involved.¹⁹⁵ Consider a doll designer who wants to sell a doll design to a doll manufacturer. The manufacturer (an information purchaser) may understandably insist on early disclosure by the author (an information seller) to accurately value the work before promising payment.¹⁹⁶ But, as soon as the author reveals the information, the manufacturer possesses it and can appropriate it without paying for it at all.¹⁹⁷ Authors seeking to sell works as information commodities thus face disclosure dilemmas: they either risk giving their information away by disclosing, or they forgo the sale and the allocative efficiency that it generates by not disclosing. The paradox is unique to the sale of information because, unlike with tangible goods, the commodity being exchanged is the very resource needed to put a value on the commodity.

Importantly, disclosure dilemmas only exist when the purchaser does not initially know, or cannot easily obtain knowledge of, the information that it seeks to purchase. When works are already widely known, the appropriation could occur even without the author's disclosure. Authors' disclosures are

193. See Burstein, *supra* note 5, at 241–42.

194. Barnett, *supra* note 5, at 796–97.

195. Arrow, *supra* note 6, at 615. The information paradox is also known as a “double trust dilemma.” ROBERT D. COOTER & HANS-BERND SCHÄFER, SOLOMON'S KNOT: HOW LAW CAN END THE POVERTY OF NATIONS 27 (2012).

196. Arrow, *supra* note 6, at 615.

197. *Id.*

not what enables the appropriation, so authors do not hesitate to provide the disclosure needed to propose a transaction due to appropriation concerns.¹⁹⁸ For example, once self-informing copies of works are available on the commercial market, there are no more disclosure dilemmas concerning the work fixed in those copies.¹⁹⁹

Copyright can defuse disclosure dilemmas and resolve Arrow's information paradox.²⁰⁰ When copyright impedes purchasers' ability to commercially exploit disclosed works without permission, authors are less hesitant to disclose their works. Implicit in this statement, however, is a limiting principle: copyright does not make authors more comfortable with disclosure when commercial exploitation of their works does not require infringement.²⁰¹ For example, copyright is notoriously ineffective at preventing movie producers and studios from appropriating the highly general pitches for movies and TV shows that authors need to disclose in order to sell their works as information commodities.²⁰² Much of the value of treatments lies in the ideas that they convey, and the lack of protection for ideas under the idea/expression dichotomy means that copyright does not make authors more comfortable providing their disclosures.²⁰³

As was true for its utilitarian cousin, the market-buffer theory, the transactional theory does not suggest that stronger rights are always better. Copyright still imposes the exact same access costs on end users and second-generation creators identified above.²⁰⁴ Thus, copyright's justification under the transactional theory also involves a tradeoff: the social benefits of contractual exchanges that might not otherwise occur must be balanced against the costs of access restrictions and administrative costs.

198. Thus, the grant of a license to make a copyrighted work is not a sale of a work as an information commodity if the licensee already had knowledge of the nature of the copyrighted work before approaching the author for a license. The author's disclosure could, however, still create some value for the transactional partner by identifying which of many works that are publicly available are best suited to the transactional partner's needs.

199. Barnett, *supra* note 5, at 794. A copy is self-informing when an examination of the copy reveals the work. *Cf.* Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81, 83 (defining self-disclosing goods in patent law). In copyright, most copies are self-informing.

200. *See supra* note 6 (citing sources). *But cf. infra* Section III.E (noting that copyright is not the only way to resolve disclosure dilemmas and exploring alternatives).

201. *Cf.* Burstein, *supra* note 5, at 259–60 (making this point with respect to patents).

202. Julie A. Byren, *When the Million-Dollar Pitch Doesn't Pay a Dime: Why Idea Submission Claims Should Survive Copyright Preemption*, 28 BERKELEY TECH. L.J. 1037, 1067–70 (2013).

203. *Id.* at 1040–42.

204. *See supra* notes 53–55 and accompanying text.

B. Architectural Copyright's Transactional Benefits

Copyright in custom architecture produces significant social value under the transactional theory. Architects rarely produce custom works on their own on a speculative basis.²⁰⁵ Rather, in what this Article terms the *architect–client transaction*, clients pay architects to produce creative works that are customized to their tastes and needs.²⁰⁶ The architect–client transaction is a classic example of the sale of an information commodity, so architects face disclosure dilemmas that can derail the custom design process before it gets started.²⁰⁷ Copyright can often help to resolve these dilemmas.²⁰⁸ Furthermore, although there are also other legal tools for resolving disclosure dilemmas, copyright is likely the best tool for the job in the context of custom architectural design.²⁰⁹

1. The Design-Bid-Build Process

The most common method for project delivery in custom architecture—i.e., for the process of designing a custom architectural work and constructing a building in which it is fixed—is design-bid-build.²¹⁰ Design-bid-build involves a strict sequence of five phases: schematic design, design development, bid documentation, bid oversight (or procurement services), and construction management.²¹¹ Client approval to continue is required at the end of each phase.²¹²

205. Cf. ROBERT GUTMAN, ARCHITECTURAL PRACTICE: A CRITICAL VIEW 71 (1988) (noting that custom architects are heavily dependent on clients to realize their ambitions).

206. See *infra* Section III.B.1. The conventional trade terminology is the “owner–architect” transaction because clients are future building owners. See Am. Inst. of Architects, Document B101-2017, *Standard Form of Agreement Between Owner and Architect* (2007) [hereinafter AIA Document B101-2017]. This Article avoids using the term “owner” to refer to clients to avoid confusion. In copyright scholarship, the architect might be intuitively considered to be the owner because architects usually own the copyrights in their works.

207. See *infra* Section III.B.2.

208. See *infra* Section III.B.3.

209. See *infra* Section III.B.4.

210. WILLIAM ALLENSWORTH ET AL., CONSTRUCTION LAW 64 (2009).

211. See AIA Document B101-2017, *supra* note 206, §§ 3.2–3.6; *Defining the Architect's Basic Services*, AIA BEST PRACTICES 15.01.01, http://www.aia.org/aiaucmp/groups/secure/documents/pdf/aia_p026834.pdf [<https://perma.cc/JN62-2DX7>]; ROGER K. LEWIS, ARCHITECT? A CANDID GUIDE TO THE PROFESSION 224–26 (3d ed. 2013). In contrast, a fast-track project telescopes the phases. See GAIL S. KELLEY, CONSTRUCTION LAW: AN INTRODUCTION FOR ENGINEERS, ARCHITECTS, AND CONTRACTORS 47–48 (2013).

212. THE AM. INST. OF ARCHITECTS, THE ARCHITECT'S HANDBOOK OF PROFESSIONAL PRACTICE 526 (14th ed. 2008) [hereinafter AIA HANDBOOK].

During schematic design, architects develop a *parti* or the general concept that informs the design.²¹³ “A *parti* diagram can describe massing, entrance, spatial hierarchy, site relationship, core location, interior circulation, public/private zoning, solidity/transparency, and many other concerns.”²¹⁴ The development of a *parti* is the phase at which architects’ design sensibilities have the greatest freedom, and it produces the quick, rough, and (sometimes) inspired drawings, such as the napkin sketches that are ingrained in architectural lore.²¹⁵ The final work product of schematic design is a set of highly generalized drawings illustrating only the most basic principles of the project’s spatial relationships, scale, and form.²¹⁶

In design development, architects begin to accommodate the many practical realities of a successful building. They conceive and document the basic principles of the structural, mechanical, electrical, and plumbing systems; they specify the materials that they plan to use with greater precision.²¹⁷ Some of this refinement simply fills in detail to the *parti*, but some demands modification of the *parti* itself. A tenacious grasp on the holistic vision of the project is essential to the synthetic thought that goes into design development.²¹⁸ By the end of design development, the architect should be confident that the design can be built, even though its details have not yet been fully specified.²¹⁹

In bid documentation, architects create a voluminous set of construction documents. Construction documents include not only detailed drawings illustrating how different building components fit together but also extensive texts or specifications explaining the different building systems.²²⁰ Although there are unquestionably creative choices required to flesh out the details of building features such as exterior cladding systems and interior finishes, generating construction documents demands a different skill set than either schematic design or design development does. Here, deep familiarity with the construction industry and an ability to keep the larger project in mind when working on the smallest of details are

213. MATTHEW FREDERICK, 101 THINGS I LEARNED IN ARCHITECTURE SCHOOL 15–16, 25 (2007); see also *id.* at 28 (“Think of a *parti* as an author employs a thesis, or as a composer employs a musical theme . . .”).

214. *Id.* at 15.

215. DINNER FOR ARCHITECTS: A COLLECTION OF NAPKIN SKETCHES (Winfried Nerdinger ed., 2004).

216. ALLENSWORTH ET AL., *supra* note 210, at 157.

217. *Id.* at 158.

218. Understanding that design decisions are contingent and deciding when to stick with or abandon prior decisions are some of the most difficult skills for architects to develop. See FREDERICK, *supra* note 213, at 29, 81.

219. ALLENSWORTH ET AL., *supra* note 210, at 158.

220. *Id.* at 160; LEWIS, *supra* note 211, at 226.

critical. In gross, practical knowledge, thorough execution, and perseverance grow more important in relation to creative vision.

Under design-bid-build, architects do not construct buildings, hire the builders who construct buildings, or even hire the general contractors who hire the builders. Rather, clients hire builders or general contractors and task them with constructing the buildings described in architects' construction documents.²²¹ In the final two stages of design-bid-build, architects thus advise their clients on which contractors to hire, and they oversee the contractors' work. During bid oversight, clients send the bid documents out to competing general contractors for bids that specify the construction methods that they would use and the price they would charge to realize the building.²²² Architects help clients evaluate these bids and select a contractor. During construction management, architects represent their clients.²²³ They visit the job site to examine the contractors' work; attend progress meetings with contractors, clients, and other interested parties; review "shop drawings" submitted by the contractor, subcontractors, and suppliers; and prepare construction observation reports that enable contractors to be paid.²²⁴ Construction documents are almost always updated and modified during the course of construction management through "change orders," as foreseeing all of the complex details of fitting the different building systems constructed by different building trades together would be an impossible undertaking.²²⁵ Construction documents are thus classic examples of incomplete contracts.²²⁶ The client and the contractor sign a contract to build a building, but many of the details about exactly how the building will be built are not fully specified before the contract is signed. They are filled in, and the occasional error in the construction documents is rectified, in real time as the construction process proceeds.

221. There is no direct contractual relationship between architects and contractors. Clients hire contractors under a client-contractor contract that is distinct from the architect-client contract. See Am. Inst. of Architects, Document A101-2017, *Standard Form of Agreement Between Owner and Contractor* (2017). Under the less common design-build method of project delivery, architects also serve as general contractors, so they do hire builders. LEWIS, *supra* note 211, at 278; ALLENSWORTH ET AL., *supra* note 210, at 75–78.

222. AIA HANDBOOK, *supra* note 212, at 562–73.

223. *Id.* at 574–92.

224. LEWIS, *supra* note 211, at 250.

225. ALLENSWORTH ET AL., *supra* note 210, at 431; LEWIS, *supra* note 211, at 252; JUSTIN SWEET & MARC M. SCHNEIER, *LEGAL ASPECTS OF ARCHITECTURE, ENGINEERING AND THE CONSTRUCTION PROCESS* 330 (9th ed. 2013).

226. Oliver Hart & John Moore, *Foundations of Incomplete Contracts*, 66 REV. ECON. STUD. 115 (1999).

2. *The Disclosure Dilemmas*

Given that the architect–client transaction entails a classic sale of a work as an information commodity (the work fixed in construction documents) for valuable consideration (client fees), it should be unsurprising that the transaction implicates Arrow’s information paradox. What is perhaps surprising, however, is that custom architects face disclosure dilemmas not only before a contract has been signed but after, as well.

The pre-contract disclosure dilemma is a familiar variant of the scenarios commonly considered in the literature on Arrow’s information paradox. A client walks into an architect’s office. The client is unlikely to have a well-developed image of what her building should look like or what its interior spatial configuration should be.²²⁷ The client does not want to pay the architect for design services until she has an idea of whether or not she will like the project that the architect designs. So, to determine whether she values the architect’s services enough to pay for them, she asks to see some rough sketches of what the architect envisions.²²⁸ The architect, however, does not want to do any design work before a contract promising payment is in place. She does not like to give away her services, and she is concerned that the client will take the sketch to another architect for refinement and execution. In other words, the architect faces a disclosure dilemma. Absent copyright, should she disclose the information and risk giving it away, or should she threaten to walk away from the project?²²⁹

In the literature on Arrow’s information paradox, a binding contract is often taken as a sign that disclosure dilemmas have been successfully defused. That is, with contracts in place, information sellers are presumed to have secured full payment for the disclosed information.²³⁰ However, the custom architect’s disclosure dilemma introduces a twist into the classic paradox because it does not end when architects and clients sign a design-bid-build contract. A combination of three industry-specific features creates a post-contract disclosure dilemma: the multi-phase design-bid-build

227. ALLENSWORTH ET AL., *supra* note 210, at 156.

228. See LEWIS, *supra* note 211, at 283–84 (discussing the calculus of giving away early-stage work for free as a “loss leader”). Firms’ reputations and their portfolios of earlier projects can reduce the owner’s unease about signing a contract without any project-specific disclosure by the architect. However, small firms often lack the necessary reputations and portfolios.

229. Today, architects commonly forge ahead and disclose preliminary design information without securing a legally binding promise for payment. They work for extended periods of time, anticipating contracts that never get executed; they provide the owner with free sketches as a “loss leader” or a “come-on to attract the client’s business.” LEWIS, *supra* note 211, at 283–84. This disclosure, however, should not be taken to suggest that there is no disclosure dilemma. A professional norm of disclosure may exist precisely because copyright protects drawings and prevents the most egregious forms of client appropriation.

230. See Merges, *supra* note 5, at 1499–500.

process, the backloaded architectural fees, and the client's right to terminate for convenience.

Architects' fees are spread out across the five phases of the design-bid-build process, with a specified percentage of the fees being delivered in each phase.²³¹ The percentages are not fixed in stone, and information about industry norms concerning architectural fees is difficult to come by.²³² Nonetheless, one recurring estimate is 15 percent for schematic design, 20 percent for design development, 40 percent for construction documents, 5 percent for bid oversight, and 20 percent for construction administration.²³³ This division means that roughly two-thirds of the fees are paid after completion of both schematic design and design development.

This percentage breakdown backloads architects' fees. Extending the notion of pre-contractual, loss-leader work into the early phases of the contract, they do work on the cheap up front with the expectation of earning more on the back end. Firms openly acknowledge this underweighting of the early phases of the design process in the fee structure. When it offers its services on an à-la-carte basis, one architectural firm increases the cost of schematic design as a stand-alone service:

To make the overall numbers work[, the firm] rebalanced its fee structure. The 15 percent of construction cost it used to charge for schematic design in a soup-to-nuts scenario has been raised to 25 percent. "Before, the design fee was spread throughout the project, and sometimes we were short," [the architect] explains. "We always

231. WERNER SABO, *LEGAL GUIDE TO AIA DOCUMENTS* 191 (5th ed. 2008). The total payment is most commonly a fixed fee for smaller projects or a percentage of construction costs for larger projects. SWEET & SCHNEIER, *supra* note 225, at 185–89, 190–91. Hourly billing is also occasionally used. *Id.* at 189–90.

232. As one commentator notes, "[t]he first rule of architecture fees is that you don't talk about architecture fees." Elizabeth Evitts Dickinson, *A Better Value*, *ARCHITECT MAG.* (Jan. 1, 2014), https://www.architectmagazine.com/practice/a-better-value_o [<https://perma.cc/TKB7-HYVE>]. The lack of information on fees is often attributed to antitrust actions that the government brought against the American Institute of Architects ("AIA"). These actions resulted in consent decrees in June of 1972 and October of 1990 that prohibited the AIA from adopting a standard or policy concerning the fees that architects should charge. *Id.* "[T]he most lasting effect of the antitrust litigation may well be the silence that ensued. Architects have been afraid to talk shop, in part because they don't fully understand the scope of the law as it relates to fees." *Id.*

233. See, e.g., Tracy Kaler, *NYC Renovation Questions: How Much Do Architects Charge?*, *BRICK UNDERGROUND* (Jan. 16, 2013, 8:58 AM), http://www.brickunderground.com/blog/2013/01/the_real_scoop_on_architectural_fees_they_can_be_negotiated [<https://perma.cc/5GZT-JL7B>]. The Royal Architectural Institute of Canada, which is not bound by the AIA antitrust decrees, offers a similar breakdown of architects' fees across the phases of the design-bid-build process. See *A GUIDE TO DETERMINING APPROPRIATE FEES FOR THE SERVICES OF AN ARCHITECT*, ROYAL ARCHITECTURAL INST. CAN. (2009), [http://www.mbarchitects.org/docs/guide_architectservicefees\(e\).pdf](http://www.mbarchitects.org/docs/guide_architectservicefees(e).pdf) [<https://perma.cc/2AF6-VLKM>].

spent more time up front; now we're just charging for it. It's a way to get our fees at the front rather than at the end."²³⁴

Furthermore, the earlier stages of schematic design and design development are where the creative faculties of talented architects get the most exercise.²³⁵ The final phases are where good, creative architectural design can go bad, but they are rarely where good, creative design originates. For this reason, one could argue that the hourly rate should be higher, rather than lower, in the earlier phases that are, today, underweighted in the distribution of architects' fees.

If the execution of a contract for design services were to require clients to hire architects for all five design phases, backloaded fees would not create post-contract disclosure dilemmas. However, the industry-standard contract allows clients to terminate for convenience.²³⁶ The numerous contingencies involved in financing and getting approval for a building mean that the parties do not attempt to identify all situations in which the client can terminate.²³⁷

Together, the multiple phases of the design-bid-build process, the backloaded fees, and the client's right to terminate for convenience create the post-contract disclosure dilemma. Clients may see advantages in changing horses (i.e., architects) mid-stream. They may obtain an early-stage architectural work from a first architect renowned for creativity and who, as a consequence, charges higher fees. They may then terminate that architect for convenience and take the work to another architect for refinement and execution. The other firm may not have been capable of generating the creative design, but it may be well equipped—perhaps even better equipped—to perform the more managerial tasks that are required during the construction document, bid oversight, and construction management phases. Furthermore, because the second firm is not as design-minded, it is likely to charge lower fees. Absent copyright, should the

234. *Right-Sizing Your Price*, ARCHITECT MAG. (Aug. 9, 2010), https://www.architectmagazine.com/practice/right-sizing-your-price_o [<https://perma.cc/24SJ-S478>].

235. See *supra* notes 213–219 and accompanying text.

236. AIA Document B101-2017, *supra* note 206, § 9.5; SABO, *supra* note 231, at 177–78. When the client terminates the agreement for convenience, the architect can collect compensation for services performed prior to termination plus termination expenses. AIA Document B101-2017, *supra* note 206, § 9.6; SABO, *supra* note 231, at 178.

237. Clients frequently start the design process before knowing whether they will be able to realize the design as a building. See SWEET & SCHNEIER, *supra* note 225, at 239 (“Because of the uncertainties inherent in the construction process, project abandonment is not rare.”). The purchase of the parcel of land on which the design is sited may fall through. Clients often need the design to obtain regulatory approval (e.g., a zoning variance), and they may fail to get the approval. Clients may use schematic-design or design-development documents to raise money needed for the project or convince essential constituencies, such as a board of governors, of the value of the building project, and they may fail to obtain the needed capital or green light. Changing business plans, interest rates, or other market conditions may halt design projects.

architect fully disclose design information to a client in the early, post-contract phases of the design process and risk not being properly compensated, or should she withhold information that the client should ideally know to approve the early-stage design work?

3. *Copyright Defuses the Dilemmas*

When it plays the role scripted by the transactional theory, copyright gives architects more confidence to disclose their works to their clients and thereby helps to resolve architects' disclosure dilemmas. If a client terminates for convenience and takes an early-phase work designed by a first architect to a second architect for refinement and execution, the second architect must make copies of the work to pick up where the first architect left off.²³⁸ Thus, a client cannot appropriate protected material from an architect's copyrighted design without committing infringement, and the architect is more comfortable disclosing first and getting a binding commitment for payment in place later.

Copyright, however, is a more effective tool for defusing disclosure dilemmas when the appropriation occurs later in the design-bid-build process. As the architect's work becomes more detailed, the likelihood that the copying constitutes infringement under the idea/expression dichotomy increases.²³⁹ If the appropriation occurs early—for example, if the appropriated work is a napkin-sketch *parti*²⁴⁰—the inherent generality of the work means that the bulk of the work's value lies in unprotected ideas.²⁴¹ Even close copying may not amount to infringement. If appropriation occurs later—for example, after design development—the work is full of protectable expression illustrating how the *parti* should be realized, and close copying is more likely to amount to infringement.²⁴²

Copyright can function as a tool for defusing disclosure dilemmas at all only because architects possess the relevant copyright interests. Architects are the authors, and thus initial owners, of the copyrights in the building

238. Actual copying is an element of copyright infringement. *See Ty, Inc. v. GMA Accessories, Inc.*, 132 F.3d 1167, 1169–70 (7th Cir. 1997). Copyright only deters clients from terminating a first architect and asking a second architect to complete the first architect's work. It does not deter them from firing a first architect and starting the design process over with a second architect.

239. *See supra* notes 62–63 and accompanying text.

240. *See supra* note 215 and accompanying text.

241. *See, e.g., Attia v. Soc'y of the N.Y. Hosp.*, 201 F.3d 50 (2d Cir. 1999) (holding that the client only copied ideas when plaintiff's allegedly appropriated work was “a series of architectural drawings and sketches to present th[e] concept” of a hospital on a platform over the FDR drive).

242. *See, e.g., Sturdza v. United Arab Emirates*, 281 F.3d 1287 (D.C. Cir. 2002) (finding a triable issue of fact on infringement when the plaintiff's allegedly appropriated work was a juried competition entry).

designs that they create for clients.²⁴³ The standard client–owner contract published by the American Institute of Architects (“AIA”) and widely used in the field specifies that the copyright remains with the architect and is not assigned to the client.²⁴⁴ The client only receives a nonexclusive, no-fee license “for purposes of constructing, using, maintaining, altering and adding to the Project.”²⁴⁵ If the owner terminates the contract for convenience, the owner must negotiate a license from the architect in order to continue the conduct permitted by the license.²⁴⁶

Clients sometimes argue that they have implicit, nonexclusive licenses to use the works that architects generate after they terminate the contract for convenience to construct the building they desire, provided that they pay the fees due to architects under the contract up to the time of termination. In gross, owners intuitively believe that they paid the architects for their designs, so the designs become to some extent the property of the owners. (Clients cannot argue that the implicit agreement was a wholesale assignment of a copyright because copyright assignments require express,

243. Authorship, by default, vests in the party who actually creates a work. *See Cmty. for Creative Non-Violence v. Reid*, 490 U.S. 730, 738 (1989). The work for hire doctrine, which is an exception to this default, does not make the client the author because architects are usually independent contractors, not employees. *See* 17 U.S.C. §§ 101, 201(b) (2018). Clients sometimes argue that they are entitled to some form of authorship interest in a building design because the process of custom design is highly interactive and they are, in fact, parties who actually create building designs. As a factual matter, it is true that clients often work closely with architects and make substantive contributions during the design process. However, the clients’ arguments concerning authorship routinely fail as a legal matter. “Indeed, courts have uniformly held that absent unusual circumstances, if a homeowner who lacks architectural training provides ‘sketches,’ ‘instructions,’ or ‘input’ to a professional architect, then the architect—not the homeowner—is the author of the resulting blueprints.” *Sorenson v. Wolfson*, 96 F. Supp. 3d 347, 363 (S.D.N.Y. 2015).

244. AIA Document B101-2017, *supra* note 206, § 7.2.

245. *Id.* § 7.3. Older versions of the AIA architect–client agreement granted owners less generous use rights. The 1987 agreement did not expressly grant any use rights. *See* SWEET & SCHNEIER, *supra* note 225, at 234; SABO, *supra* note 231, at 111. The 1997 agreement gave the owner a nonexclusive license to reproduce the documents for the purpose of building, using, and maintaining the project, but not for altering or adding to the project. SWEET & SCHNEIER, *supra* note 225, at 234.

In addition to collecting more fees, architects seek to avoid exposure to liability for construction defects by preventing clients from taking their drawings to other architects to complete their designs and construct buildings. If a future architect fails to correct a design error prior to construction or uses a building design in an unforeseen manner, the initial architect may end up being dragged into the resulting lawsuit. *See* SWEET & SCHNEIER, *supra* note 225, at 233; SABO, *supra* note 231, at 111. The standard AIA architect–client agreement now releases the architect from liability and requires the client to pay the architect’s legal fees if an owner uses an architect’s plans without retaining the architect’s services. AIA Document B101-2017, *supra* note 206, § 7.3.1; SABO, *supra* note 231, at 124.

246. The 2007 version of the standard AIA architect–client agreement departed from prior versions by providing for a licensing fee for the continuation of the owner’s use license if the owner terminates the contract for convenience or the architect terminates the contract due to the owner’s failure to pay fees due in a timely manner. Am. Inst. of Architects, Document B101-2007, *Standard Form of Agreement Between Owner and Architect*, § 11.9 (2007); *see also* ALLENSWORTH ET AL., *supra* note 210, at 174–75; SABO, *supra* note 231, at 194–95. A similar provision was carried forward into the 2017 version. AIA Document B101-2017, *supra* note 206, §§ 7.3, 7.5, 9.7.2.

written agreements, but nonexclusive licenses do not).²⁴⁷ Courts use a three-element test to determine whether an author has granted an implied license: the potential licensee must request the creation of the work, the potential licensor must create and deliver the work to the potential licensee, and the potential licensor must intend that the licensee have a nonexclusive right to make copies or derivative works.²⁴⁸ The facts underlying architect–client infringement actions usually satisfy the first two factors, so the third, intent factor is usually the most important. In turn, a finding of an intent to grant an implied license commonly hinges on whether the architect and client envisioned a short-term transaction for a single phase of project delivery when they signed the contract or whether they were planning to work together for all phases.²⁴⁹

This test for the existence of an implied, no-fee license dovetails perfectly with copyright’s role in defusing post-contract disclosure dilemmas. If the client hires the architect to perform only a single phase, say schematic design, the architect is assumed to have intended to grant the client a license.²⁵⁰ The concern over post-contractual client appropriation is reduced in this scenario because à-la-carte pricing for particular phases of the design-bid-build does not backload architects’ fees.²⁵¹ However, if the client engages the architect for all phases, then the architect is assumed not to have intended to grant the client an implied license.²⁵² Copyright provides the architect a remedy only in the scenario wherein the architect could hesitate to disclose because of a concern about eventually receiving back-loaded fees.

247. Transfers of ownership require exclusive licenses. 17 U.S.C. § 204 (2018). Nonexclusive licenses are not transfers of ownership. *Id.* § 201.

248. *Effects Assocs., Inc. v. Cohen*, 908 F.2d 555, 558–59 (9th Cir. 1990).

249. *Nelson-Salabes, Inc. v. Morningside Dev., LLC*, 284 F.3d 505, 516 (4th Cir. 2002). Courts also consider whether architects’ proposed contracts contain terms retaining exclusive rights and whether architects’ behavior manifests the belief that clients have nonexclusive licenses. *Id.*

250. *See Foad Consulting Grp., Inc. v. Azzalino*, 270 F.3d 821, 827–28 (9th Cir. 2001); *I.A.E., Inc. v. Shaver*, 74 F.3d 768, 774–77 (7th Cir. 1996).

251. *See supra* note 234 and accompanying text.

252. *See John G. Danielson, Inc. v. Winchester-Conant Props., Inc.*, 322 F.3d 26, 40–42 (1st Cir. 2003); *Nelson-Salabes*, 284 F.3d at 514–17; *Johnson v. Jones*, 149 F.3d 494, 499–502 (6th Cir. 1998); *Saxelbye Architects, Inc. v. First Citizens Bank & Tr. Co.*, No. 96-2766, 1997 WL 702290, at *3–4 (4th Cir. Nov. 3, 1997); *cf. Francois v. Jack Ruch Quality Homes, Inc.*, No. 03-1419, 2006 WL 2361892, at *7–11 (C.D. Ill. Aug. 14, 2006) (denying summary judgment because of a factual dispute as to whether the owner had intended to use the architect’s services for all phases of the project). The presumption can be strong: one court found no implied license even when the work was incorporated into a restrictive covenant running with the land. *John G. Danielson*, 322 F.3d at 40–42.

4. *Alternative Legal Mechanisms for Defusing the Dilemma*

The previous Section focused on showing that copyright *can* resolve architects' disclosure dilemmas. This Section argues, albeit more tentatively, that copyright is the *best way* to resolve them. That is, it argues that there are not alternative tools in the toolbox that could do the job more efficiently.²⁵³ The commonly considered alternatives to copyright as a tool for resolving information paradoxes are inapplicable in the context of custom architecture.

Other forms of intellectual property do not offer architects enough protection against client appropriation to defuse their disclosure paradoxes. Utility patents do not provide effective protection for most architectural works,²⁵⁴ and design patents are costly to obtain in relation to copyrights.²⁵⁵ Trade secrecy can overcome the disclosure paradox in some situations,²⁵⁶ but architectural designs cannot be kept secret for long.²⁵⁷

The bulk of the commonly considered mechanisms for resolving disclosure dilemmas other than intellectual property are not viable in the context of custom architecture, either. While "second-order" information that communicates the value of a work can sometimes be disclosed without disclosing the work itself,²⁵⁸ there is no such second-order information for architectural works. A professional norm against appropriation can facilitate disclosure,²⁵⁹ but strong norms among the heterogeneous collection of largely one-shot players in the building market who become architects'

253. Cf. Burstein, *supra* note 5, at 262–74 (considering options other than intellectual property for resolving information paradoxes). Copyright becomes a more attractive tool for resolving architects' disclosure dilemmas if the building/drawing dichotomy limits its reach. See *infra* Section III.C.

254. Utility patents have historically protected spatial layouts embodying functional innovation, but only a small fraction of architectural works will qualify for protection. Collins, *supra* note 103, at 1646–51.

255. Design patents can protect architectural designs. See Brainard, *supra* note 15, at 87–89; Cahn, *supra* note 15, at 117–20; Voorhees, *supra* note 15, at 84–87. They offer the most plausible alternative form of intellectual property for resolving architects' disclosure dilemmas. However, they require an expensive application and examination process that few architects undertake for custom works, especially at early stages of the design-bid-build process.

256. See Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 336–37 (2008).

257. Architects must coordinate with a large team of professionals. See FREDERICK, *supra* note 213, at 21; LEWIS, *supra* note 211, at 197, 208. Clients frequently want to publicize designs to raise funds for, and public awareness of, their projects, and regulatory approval requires drawings to be deposited with local governments. LEWIS, *supra* note 211, at 204–06, 224–25, 244–46.

258. Burstein, *supra* note 5, at 255–58; see also Barnett, *supra* note 5, at 801–02; cf. James J. Anton & Dennis A. Yao, *The Sale of Ideas: Strategic Disclosure, Property Rights, and Contracting*, 69 REV. ECON. STUD. 513, 515 (2002) (considering a combination of partial disclosure and bonds to resolve disclosure dilemmas).

259. Barnett, *supra* note 5, at 802–03; Burstein, *supra* note 5, at 267–70.

clients are unlikely.²⁶⁰ Vertical integration eliminates the need to sell works as an information commodity,²⁶¹ but requiring clients to take on architects as employees every time they want to pursue a custom building project is implausible.²⁶² Two alternatives to copyright, however, do merit more in-depth consideration: the laws of contract and tangible property.

Absent any copyright, the architect and client could insert a clause into the architect–client agreement that attempts to replicate the effect of a copyright by prohibiting post-contract client appropriation. For example, the architect–client agreement could specify that the client will not use the architect’s building design, first, to construct multiple buildings or, second, to construct the first building if the owner terminates the contract for convenience or the architect terminates because the owner fails to pay the architect monies already due under the contract. Attempts to use contract law as a substitute for copyright, however, often leave architects without effective remedies because of contract law’s privity requirement.²⁶³ Under copyright, architects’ infringement suits can include not only clients as defendants but also the many other parties involved in a building project on the client side, including the client’s new architects, the contractor or builder, or even the banks that lend money to clients for the construction project. In contrast, under contract law, the architects’ suits can only be brought against clients. In some cases, the architect has no cause of action against the client at all. For example, the client may sell the parcel of land that is the site of the building project or title to that parcel may transfer in bankruptcy.²⁶⁴ If the new owner of the parcel appropriates the architect’s building design, the client who has a contractual bond with the architect is no longer in the picture at all. Privity means that the contract’s *in personam* rights cannot do what copyright’s *in rem* rights can do.²⁶⁵

260. Setting aside professional developers, constructing buildings is not part of most clients’ ongoing business. See LEWIS, *supra* note 211, at 275.

261. See Barnett, *supra* note 5, at 803–12; Burk & McDonnell, *supra* note 5, at 579, 587–88; R. H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386, 391–92 (1937).

262. The transaction costs of keeping architects on the payroll would likely outweigh the transaction costs avoided by not engaging in a market transaction. See Burk & McDonnell, *supra* note 5, at 583–90; Coase, *supra* note 261, at 395–97.

263. Although the transactional theory focuses on copyright’s impact on transactional partners, it still recognizes the importance of copyright’s *in rem* rights, as opposed to contract’s *in personam* rights, as a way of going after entities who are not parties to the contract yet who stand in the shoes of information recipients.

264. For examples of architectural copyright infringement cases in which architects sue parties who come to stand in their former clients’ shoes, see *John G. Danielson, Inc. v. Winchester-Conant Props., Inc.*, 322 F.3d 26 (1st Cir. 2003); *Nelson-Salabes, Inc. v. Morningside Holdings, No. Civ. B-98-2226*, 2001 WL 419002 (D. Md. Feb. 16, 2001), *aff’d in part, vacated in part on other grounds*, 284 F.3d 505 (4th Cir. 2002).

265. In addition, contracts governing the exchange of information, and especially yet-to-be-developed information, are tricky because of “the difficulties of describing information precisely,

Alternatively, and perhaps most simply, architects could demand fees that are not backloaded regardless of whether client appropriation occurs.²⁶⁶ This change, however, might not be preferable to copyright—and especially copyright limited by the building/drawing dichotomy—for either the architects or the clients.²⁶⁷ For clients, the lower fees in the earlier phases are clearly advantageous because they shift financial risk onto architects.²⁶⁸ Perhaps more surprisingly, backloaded fees also have benefits for architects (at least from the perspective of firms who do not yet know that they will not see a project through to building completion) because they increase the amount of work that clients will pay for. Backloaded fees reduce the costs that clients incur to start design work, meaning that clients will seek out design work when the risk of a project not being brought through to completion is greater. Architects may prefer having a larger quantity of work at a reduced fee (especially if the early-stage fees cover firms' labor costs, even if they do not contribute to firms' profits). Many less-established firms can benefit from unrealized projects because they fill out the firms' portfolios and help to obtain future work.²⁶⁹

The contractual solutions noted above are only possible once there is a contract in place, and they are therefore only helpful for resolving post-contract disclosure dilemmas. Attempts to use copyright to resolve architects' pre-contract disclosure dilemmas layer yet another problem on top of those already discussed: the courts need to find an implicit agreement for the client not to appropriate the architect's building design without compensating the architect. Similar implied contracts already exist in

evidentiary uncertainty, and the limitations of contractual remedies, to name a few." Yelderman, *supra* note 5, at 1580. If copyright did not exist, how would a court determine whether a client used an architect's building design?

266. The contract could also eliminate clients' rights to terminate for convenience or grant architects rights to a stipulated sum upon termination for convenience equal to the backloaded portion of the fees. The standard AIA architect-client agreement layers this latter provision on top of the architect's ability to use copyright to prevent client appropriation of architectural works still under development. AIA Document B101-2017, *supra* note 206, §§ 9.6, 9.7 (specifying a termination fee that includes "the Architect's anticipated profit on the value of the services not performed by the Architect"). As a stand-alone measure, this contractual provision raises the difficult problem of determining whether a client has used an architect's work. How does a court determine whether the client has appropriated the architect's building design without relying on copyright law? *See infra* note 272 and accompanying text.

267. The access costs that copyright imposes on future architects must also be considered. However, these access costs are significantly reduced when the building/drawing dichotomy limits copyright. *See infra* notes 293–295 and accompanying text.

268. *Cf. supra* note 237 and accompanying text (noting the many contingencies in the construction process). In addition, the time-value of money and the ability of clients to use the self-help measure of withholding fees upon unsatisfactory architect performance make the backloaded fees preferable to clients.

269. LEWIS, *supra* note 211, at 272 (noting that even losing competition entries have value because they build firms' portfolios).

California in the entertainment industry.²⁷⁰ However, the basis of the implied contract is a professional norm among the information recipients, namely the studios, and it would be tricky, if not impossible, to find or even develop such a norm among the clients of custom architects.²⁷¹ Another solution would be to move forward the point in time at which owners and architects sign agreements and effectively eliminate pre-contract disclosures. However, such agreements are costly to implement and difficult to draft and enforce.²⁷² In addition, in a mirror image of the disclosure paradox, clients would be unlikely to consent to an obligation not to use any disclosed information for their commercial advantage without first knowing what the information is.²⁷³

The law of tangible property, too, provides a possible alternative to copyright law as a means for architects to prevent, or at least obtain compensation for, appropriation of their building designs by clients. Architects refer to the physical drawings, computer files, and models that represent building designs as *instruments of service*.²⁷⁴ The standard AIA architect–client agreement establishes architects’ ownership of instruments of service.²⁷⁵ If clients terminate a contract for convenience, architects can demand that the clients return whatever instruments of service are in their possession, making appropriation more difficult.²⁷⁶ How can a client

270. The seminal case is *Desny v. Wilder*, 299 P.2d 257 (Cal. 1956).

271. See *supra* note 260 and accompanying text.

272. See Barnett, *supra* note 5, at 797–800; Burstein, *supra* note 5, at 263; Merges, *supra* note 5, at 1489–95.

273. See Barnett, *supra* note 5, at 797–800; Burstein, *supra* note 5, at 263; Merges, *supra* note 5, at 1489–95. Clients may have already conceived of the basic design that architects reveal, or they may learn of the same basic design from multiple architects. See Barnett, *supra* note 5, at 798; Burstein, *supra* note 5, at 263; Lemley, *supra* note 256, at 337.

274. Am. Inst. of Architects, Document A201–2007, *General Conditions of the Contract for Construction*, § 1.1.7 (2007) (“Instruments of Service are representations . . . of the tangible and intangible creative work performed by the Architect and the Architect’s consultants . . . Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.”); SABO, *supra* note 231, at 295.

275. In fact, it establishes ownership of instruments of service with the same clause that retains architects’ ownership of copyright. AIA Document B101-2017, *supra* note 206, § 7.2 (“The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights.”). However, absent any contractual clause establishing ownership, the copyright would belong to the architect as author but the instruments of service might belong to the client. SABO, *supra* note 231, at 111. *But cf.* SWEET & SCHNEIER, *supra* note 225, at 233–34 (arguing that default ownership of the instruments of service is not clear-cut).

276. The standard AIA architect–client agreement grants owners a use license to the architect’s instruments of service on the same terms that it grants owners a use license to the architect’s copyrights. The use license either ends or requires the payment of a fee upon termination of the contract. See *supra* notes 245–246 and accompanying text. Ownership interests in the physical instruments of service are distinct legal rights from ownership interests in the copyright in the architectural design fixed in those instruments, so the two need not be allocated in the same manner. SABO, *supra* note 231, at 111

reproduce a design if she lacks access to a copy of the design? Fights between clients and owners over instruments of service are thus fights over legal ownership of sheets of paper and files on disks and hard drives as chattels.²⁷⁷ (More specifically, they are fights over use-rights in those chattels).²⁷⁸ However, fights over tangible things are means to the end of controlling the use of the design information represented on those things.²⁷⁹

The idea of using ownership of instruments of service as a tool for controlling the client's use of design information has deep roots in architectural practice. Disputes between clients and architects over instruments of service are as old as, if not older than, disputes over statutory copyright.²⁸⁰ Prior to 1997, the standard AIA architect–client agreement made special reference to ownership of “reproducible copies” of instruments of service, emphasizing that control over tangible documents is a means to the end of control over the flow of information.²⁸¹ Revealing the path-dependent nature of the language in the standard AIA architect–client contracts, the allocation of copyright in architects' architectural works is still today accomplished by clauses that expressly discuss instruments of service.²⁸²

In the early part of the twentieth century, the primacy of architects' interest in acquiring physical ownership of documents rather than retaining

(“[O]wnership of the drawings and ownership of the copyright . . . are two distinct terms. One person can own the copyright and another own the drawings.”). *But cf.* SWEET & SCHNEIER, *supra* note 225, at 330 (suggesting that vesting copyright authorship and instrument-of-service ownership to two different parties results in a “clash”). Having different owners of tangible copies and copyright interests is commonplace in copyright law. For example, a reader owns a tangible book, but the author or publisher owns the copyright. *Cf.* 17 U.S.C. § 109(a) (2018) (codifying copyright's first sale doctrine).

277. Emphasizing the chattel-like nature of instruments of service, one jurisdiction styled the cause of action brought against a user of architectural instruments of service to which he did not have use-rights as a claim for tortious conversion of the tangible documents. *Williams v. Chittenden Tr. Co.*, 484 A.2d 911 (Vt. 1984).

278. SWEET & SCHNEIER, *supra* note 225, at 233.

279. *Id.* at 234 (“[T]he prohibition against the client's using the [instruments of service] for additions to or for completing the project can be looked on as a device to . . . make the client pay compensation if it replaces the original architect.”). The architect's retention of ownership in instruments of service, and even the moniker “instruments of service” itself, is also a strategic choice for architects for another reason. By calling the drawings instruments of service and retaining ownership in them, architects reduce the chance of being pegged as sellers of goods, rather than professional services, and thus the possibility of a court finding implied warranties in the plans that increase architects' liability for construction defects. *See id.* at 233; SABO, *supra* note 231, at 110–11; *O'Dell v. Custom Builders Corp.*, 560 S.W.2d 862 (Mo. 1978).

280. JOHN CASSAN WAIT, *ENGINEERING AND ARCHITECTURAL JURISPRUDENCE: A PRESENTATION OF THE LAW OF CONSTRUCTION FOR ENGINEERS, ARCHITECTS, CONTRACTORS, BUILDERS, PUBLIC OFFICERS, AND ATTORNEYS AT LAW* §§ 815–16 (1st ed. 1897) (discussing the ownership of corporeal plans while noting that the existence of statutory copyright for architects had not yet been decided). Architects have long enjoyed common law copyright in their building designs that lasted until publication. *Id.* § 816.

281. Am. Inst. of Architects, Document B141-1987, *Standard Form of Agreement Between Owner and Architect*, § 6.1 (1987).

282. AIA Document B101-2017, *supra* note 206, § 7.

the copyright in the building designs fixed in those documents was understandable. At the time, blueprints were the primary reprographic technology, and they required an original drawing to make a viable copy. Physical control over the originals (i.e., the “reproducible copies”) therefore afforded some degree of control over the flow of design information. In contrast, perfect digital copies abound in the contemporary era, making ownership of instruments of service less important and ownership of copyright more important. The architect’s ownership of instruments of service, for example, could not prevent a client from going to the local government building department and making a copy of any plans on file. In addition, ownership of instruments of service only becomes a significant deterrent if an owner considers terminating the architect late in the design process. The information embodied in the extensive set of construction documents cannot be retained in an owner’s head, and the cost of recreating the construction documents will be a very significant fraction of the money paid to the original architect to create the construction documents. In contrast, if the owner wishes to terminate early in the process during or at the end of the schematic design phase, then the owner can mentally retain much of the valuable information and take this information to another architect for refinement without physically taking the architect’s instruments of service.

C. Optimizing Copyright for Its Transactional Justification

The prior Section established that copyright can resolve architects’ disclosure dilemmas. This Section turns to the nature of the copyright that is best suited to do that work. Drawing protection alone optimizes copyright for the transactional theory. Abandoning the full, media-neutral protection offered by the AWCPA and embracing the building/drawing dichotomy leads to a win–tie result in the transactional theory’s cost–benefit tradeoff: it creates a larger public domain from which competitor architects can draw (a win on the cost side) without detracting from copyright’s ability to resolve disclosure dilemmas and facilitate transactions involving the sale of works as information commodities (a tie on the benefit side).

The usual form of client appropriation entails clients who switch horses mid-stream: they take a first architect’s work produced during the schematic design, design-development, or bid documentation phase to a second architect for refinement of the work and realization of a building at a lower cost.²⁸³ For this form of appropriation, drawing protection alone resolves the

283. See *supra* Section III.B.2.

disclosure dilemma just as well as full, media-neutral protection does. Clients must reproduce works before the architect–client transaction has realized a building if they are to profit from the appropriation. Upon building completion, the client has already paid the architect all of the backloaded fees. Furthermore, she already has the building that she desires, so there is no economic motivation to copy.²⁸⁴ Clients who copy before building completion can only copy from works that are fixed in drawings,²⁸⁵ and it is axiomatic that drawing protection protects drawings just as well as full, media-neutral protection does.²⁸⁶ Inversely, the privilege to lawfully

284. If a client desires multiple building-copies of a work, she can, in theory, profit from lawfully copying a building. She can avoid paying the architect a licensing fee for reusing construction documents by reverse engineering the first building back into construction documents and using those new construction documents to build the subsequent buildings. This scenario in which clients can profit from lawfully copying from buildings should not undermine architects' willingness to disclose their works during the architect–client transaction for three reasons. First, clients rarely want second copies of custom buildings. Multiple building-copies are far more common for stock works. *See infra* notes 314–318 and accompanying text. Second, the client is unlikely to realize any cost savings. Copying construction documents is usually less expensive than reverse engineering custom buildings when clients want close copies, *see infra* notes 308–309 and accompanying text, giving clients strong incentives to negotiate licenses to reuse construction drawings. Third, and most fundamentally, this kind of appropriation does not allow the client to use a work without paying the agreed-upon price. The lack of building protection may, however, affect the market value of the architect's work when clients construct multiple copies of custom buildings, and it therefore may have distributive consequences for architects and their clients.

285. There are two sources, other than drawings, from which clients may copy before building completion. First, they may copy from three-dimensional scale models. Pre-AWCPA copyright likely protects scale models just as it protects drawings. *See supra* note 66. Regardless of whether pre-AWCPA copyright actually protects them, copyright limited by the building/drawing dichotomy should protect them to fully resolve architects' disclosure dilemmas. *Cf. infra* note 321 and accompanying text (arguing that representations of the copies that fulfill consumers' needs are copies in the development medium under a generic consumption-medium/development-medium dichotomy). Second, clients may copy from unauthorized buildings constructed by third parties. Assume that a client and an architect begin the design-bid-build process but their work stops after schematic design because market conditions shift. A third party could unlawfully copy the schematic design drawings, refine them into construction documents, and build a building embodying the work. The original client could then lawfully copy from the third party's building, creating new schematic design drawings and proceeding with the remainder of the design-bid-build process. This scenario is empirically unlikely to arise for many reasons. (For example, demand for close copies of custom works is low, the time lag between the third party's drawing copying and building realization is significant, and the marginal cost of constructing a building means that no third party will construct a building as a prototype to test its feasibility). However, even if clients were to copy from buildings in this manner on a regular basis, drawing protection alone would still provide enough protection to make architects comfortable with disclosing their works to clients. The third party is an infringer (assuming copying of protected expression), and the architect can obtain monetary damages to compensate for the client's appropriation. She would just have to sue the third party rather than the client. *Cf. supra* note 265 and accompanying text (noting the benefits of using *in rem* rights to resolve disclosure dilemmas).

286. The expansive scope on the drawing side of the building/drawing dichotomy in cases alleging drawing-to-drawing copying is essential to the ability of pre-AWCPA copyright to serve its transaction-facilitating function. Drawing protection must extend to representational content; it must protect the very features of building designs that are not protected when they are fixed in buildings. Media-neutral protection for rendition expression alone is not enough. *Cf. supra* Section II.B (highlighting the media discrimination of the building/drawing dichotomy by identifying a media neutral

copy from buildings is irrelevant to concerns about client appropriation because there are no buildings to copy at the time at which clients can benefit from appropriation.

One possible wrinkle in the ability of drawing protection alone to fully resolve architects' information paradoxes arises if appropriation occurs after construction documents have been completed. Under pre-AWCPA copyright, architects do not have an execution right with respect to their construction drawings.²⁸⁷ Clients can, in theory, hire a second architect to lawfully use a first architect's construction documents during the bid oversight and construction administration phases because the building produced is not considered an actionable copy of the architectural work fixed in the construction documents. However, this loophole in pre-AWCPA copyright is not large. Change orders during the construction process are almost inevitable, requiring the reproduction of plans with the modifications,²⁸⁸ and, even in the unlikely event of a construction project without change orders, multiple copies of the construction documents are essential on all but the smallest of projects.²⁸⁹ Although it may smack of indicting Al Capone for tax fraud, architects can successfully sue most clients who use their drawings to construct buildings under pre-AWCPA copyright on the basis of drawing copying. More fundamentally, a justification of the building/drawing dichotomy does not have to include a justification for the absence of an execution right. Copyright could easily adopt both the building/drawing dichotomy and an execution right. The two rules are conceptually distinct and compatible. The building/drawing dichotomy imposes media discrimination in subject matter, whereas the execution right eliminates media discrimination in rights.²⁹⁰

alternative that also provides some protection to drawings without providing any protection to buildings).

287. See *supra* notes 71–73, 132–135 and accompanying text.

288. See *supra* notes 223–225 and accompanying text.

289. Copies are essential for disseminating information to the multiple contractors and subcontractors in different building trades who need to work in concert. Cf. *DeSilva Constr. Corp. v. Herral*, 213 F. Supp. 184, 187 (M.D. Fla. 1962) (noting that “at least six . . . subcontractors were given complete copies of . . . architectural plans” to construct a single-family home). Requiring the independently owned companies to reference a single set of construction documents would be a coordination nightmare.

290. Cf. *supra* Section I.A (distinguishing media discrimination in subject matter and rights); *supra* note 61 (discussing Professor Balganesch's proposal to decouple media neutrality in subject matter and rights). The AIA argued for exactly this both-and combination—preserving the building/drawing dichotomy and adding an execution right—in the congressional hearings on Berne compliance. 1989 COPYRIGHT OFFICE REPORT, *supra* note 70, at 196–98. However, the AIA supported media-neutral architectural copyright in subsequent congressional hearings on the AWCPA. *Architectural Design Protection: Hearing on H.R. 3990 and H.R. 3991 Before the Subcomm. on Courts, Intellectual Prop., and the Admin. of Justice of the H. Comm. on the Judiciary*, 101st Cong. 111–12, 114 (1990).

It is true that drawing protection alone does not protect, or thus incentivize, architects' disclosures after a building has been constructed. If a first architect discloses a work fixed in an already-constructed building to a potential client and suggests that the potential client might want her own building-copy of the work, the potential client can lawfully appropriate the work by instructing a second architect to copy the first architect's constructed building.²⁹¹ In this scenario, however, the transactional theory sees no harm in permitting the copying because the architect does not face a disclosure dilemma. The public nature of the building means that the disclosed work was already known, or at least readily knowable, to the client. The architect's disclosure is not what enables the appropriation; the appropriation could readily occur even without the disclosure, so there is little hesitation to disclose.²⁹² Furthermore, there is no concern about an architect electing not to allow a building to be built to avoid making the work known to the public. Architects cannot make money without allowing their designs to be realized as buildings.

Moving to the other side of the dichotomy, the absence of building protection reduces copyright's access costs. Most importantly, it reduces the dynamic costs of copyright's access restriction and thus lowers the tax that copyright imposes on the next generation of creators.²⁹³ Architects and architectural historians openly acknowledge the importance of historical and contemporary works as "precedent"—a familiar term in legal circles—and the use that Modern, Postmodern, and contemporary architects make of precedent to inform their designs.²⁹⁴ The loose copying that occurs when architects draw from precedent can readily be accomplished through building copying: massing, spatial flow, materiality, façade patterns, organizational arrangements, lighting schemes, and even some construction details, just to name a few, are all elements of architectural works that are on full display in buildings. Furthermore, buildings are readily available to architects as references. Photographs of buildings circulate in architectural

291. The building may not disclose all of the details that the drawings do.

292. In other words, a transaction in which a client licenses a right to construct a second copy of an already-constructed building is not a sale of a work as an information commodity as this Article defines the phrase. See *supra* text accompanying note 193.

293. See *supra* note 54 and accompanying text. The absence of building protection also decreases copyright's static costs. See *supra* note 53 and accompanying text. However, this reduction is less significant for two reasons. First, it is costly to engage in slavish, literal copying via building copying. See *infra* notes 308–309 and accompanying text. Second, demand for literal copies of custom architectural works among parties other than the clients to whose tastes and needs the works are customized is low. See Collins, *supra* note 19, at 43–44.

294. ROGER H. CLARK & MICHAEL PAUSE, PRECEDENTS IN ARCHITECTURE: ANALYTIC DIAGRAM, FORMATIVE IDEAS, AND PARTIS (4th ed. 2012). As the AIA Handbook states in its discussion of design precedents, "[i]t is common for architects to familiarize themselves with the design of buildings that deal with similar issues to stimulate solutions for their own design problems." AIA HANDBOOK, *supra* note 212, at 523.

journals and on the internet. The building/drawing dichotomy permits this loose copying to proceed without the costs of licensing or the chilling effects of potential litigation.²⁹⁵

In gross, the building/drawing dichotomy sculpts copyright to fit the transactional theory by leaving a medium in which a work can be fixed beyond the reach of copyright protection and allowing the economic truncation of copyright term when the public gains access to copies in that medium.²⁹⁶ In an initial phase before the fixation of the work in a building, copyright is strong. Protected drawings are the only copies of the work that exist and thus the only copies from which copying can occur. In the later phase after the fixation of the work in a building, copyright is much weaker. The ability to lawfully copy works from buildings saps drawing protection of its economic importance.²⁹⁷ This economic truncation gives copyright economic heft throughout the time window when it is needed to defuse disclosure dilemmas but not thereafter when its transaction-facilitating role has played out.²⁹⁸ Ratcheting down the economic strength of copyright protection after building construction provides an unalloyed social good under the transactional theory.²⁹⁹

295. It is not clear how much of the loose copying that is prevalent in architectural practice today is close enough to constitute infringement under the AWCPA. Limitations on copyright scope—such as the originality requirement, the idea/expression dichotomy, and the absence of protection for functionally required elements—might permit architects to lawfully engage in this loose copying even if buildings were protected subject matter. In its initial congressional hearings on Berne compliance, the AIA testified that building protection would cause architects to alter their creative process, draw less source material from buildings designed by other architects, and repeat their own designs more regularly. *U.S. Adherence to the Berne Convention: Hearing Before the Subcomm. on Patents, Copyrights and Trademarks of the S. Comm. on the Judiciary*, 99th Cong. 732–34 (1987) (letter from Dale R. Ellickson, AIA); cf. *supra* note 290 (noting that the AIA argued in favor of preserving the building/drawing dichotomy in congressional hearings on Berne compliance).

296. Economic truncation of term is a familiar concept, if not a familiar term, in copyright economics. For example, the generation of a competing work partially truncates copyright term as an economic, but not legal, matter. Christopher S. Yoo, *Copyright and Product Differentiation*, 79 N.Y.U. L. REV. 212, 238–39 (2004).

297. This is the crux of the argument against media discrimination in subject matter under the market-buffer theory. See *supra* note 64 and accompanying text. There is no second, weaker phase for unrealized or “paper” projects.

298. One could argue that the better way to sculpt copyright to the transactional theory is to truncate copyright term as a legal matter upon the construction of a building. Cf. *infra* note 340 and accompanying text (distinguishing legal and economic defeasance of copyright). However, full-term drawing protection provides a benefit under the market-buffer theory by increasing the cost of slavish copying. See *infra* notes 308–309 and accompanying text.

299. In contrast, the effect of truncating copyright term is never a categorical welfare gain under the market-buffer theory. An extra increment of copyright term, prospectively applied, always increases expected profits for some authors, and thus gross ex ante incentives, at the margin. However, the net effect of truncating copyright term can be a net welfare gain under the market-buffer theory once copyright’s costs are considered. Cf. *Eldred v. Ashcroft*, 537 U.S. 186, 255–56 (2003) (Breyer, J., dissenting) (noting reasons why the present value of an additional increment of copyright term decreases as the increment moves further into the future).

Another way to understand how the building/drawing dichotomy sculpts copyright to fit the transactional theory is to note that it targets copyright on architects' clients rather than their competitors.³⁰⁰ As a legal matter, the dichotomy does not transform copyright into an *in personam* contractual right that is only good against clients; drawing protection remains an *in rem* right good against the world. But, as a practical matter, drawing protection curbs copying by clients more strictly than it curbs copying by competitors. Competitor architects who want to borrow from earlier works can copy from buildings, albeit with a time delay. Clients who want to appropriate works cannot. They must copy when copying from drawings is their only option. The building/drawing dichotomy shapes architectural copyright so that it gives architects more of a leg up in disputes with clients than it does in disputes with competitor architects.³⁰¹

D. Building Protection and the Incentive to Create

The previous Section established that the elimination of building protection optimizes copyright in custom architecture for the transactional theory, but it did not address the question precedent of whether the transactional theory should be what shapes copyright's contours. If building protection were to solve a public goods problem and generate a net social benefit under the market-buffer theory, then the transactional theory alone should not be copyright's polestar. This Section therefore sketches historical and theoretical reasons to believe that building protection generates minimal benefits under the market-buffer theory and that the building/drawing dichotomy is good policy under a pluralistic, utilitarian justification for copyright that considers both the incentive and transactional theories. If there were significant incentive benefits from restricting competition in the building, then the categorically beneficial win-tie result of eliminating building protection would devolve back into an indeterminate win-lose result under a pluralistic, utilitarian theory.

Historically, architectural creativity did not suffer before the enactment of the AWCPA in 1990 when copyright denied architects protection for their buildings. Architectural critics and historians do not note a burst of

300. Under the transactional theory, copyright's principal goal is to curb copying by transactional partners. To quote Rob Merges's framing of intellectual property's transaction-facilitating role, "while property rights are indeed good against the world," a transactional theory of intellectual property emphasizes copyright's impact on "one crucial slice of the world—negotiating partners—which has been overlooked" because the market-buffer theory is intellectual property's dominant utilitarian justification. Merges, *supra* note 5, at 1496.

301. In some suits, a first architect sues a second architect when a client serves as a go-between and takes the first architect's work to the second architect for refinement and execution. These suits involve disputes between architects and clients, despite their captions.

creativity in custom architecture that correlates with the adoption of the AWCPA. Nor was there a long-simmering complaint among custom architects before the AWCPA that a free-rider problem was squelching innovative design or jeopardizing their professional livelihoods. In fact, not only did the American Institute of Architects not actively lobby for the building protection granted by the AWCPA, it initially testified that building protection would be detrimental to architects' welfare.³⁰² (It was instead Congress's decision "to place the United States unequivocally in compliance with its Berne obligations" that drove the legislative process leading to the AWCPA).³⁰³ This is a notable departure from the usual political economy of copyright reform in which rights holders push for stronger rights,³⁰⁴ and it is highly suggestive. Although Congress should hesitate to let authors set the ceiling for copyright strength out of concerns about self-dealing, authors' satisfaction with weaker rights is a more reliable indicator of the absence of a public goods problem.

Why didn't the absence of building protection in copyright lead to a public goods problem in custom architecture under pre-AWCPA copyright and its building/drawing dichotomy? The answer rests on two distinct arguments about the effects that drawing protection, even without building protection, has on creative architectural production. One resonates with copyright's competition-restricting role under the market-buffer theory and the other with its transaction-facilitating role under the transactional theory.

Assuming that, absent copyright, custom architectural designs suffer from a public goods problem, drawing protection alone mitigates the problem, albeit not to the same extent that full, media-neutral protection does. It still alters both the timing and nature of competitors' copying. Drawing protection forces competitors to wait until after the construction of a building to reproduce a work, so it provides a limited period of market exclusivity in the form of a first-mover advantage for creative architects.³⁰⁵ Given the length of the sequential design and construction processes under design-bid-build,³⁰⁶ forcing competitors to delay copying until after a building has been built delays copying by competitors for months for small-

302. See *supra* note 290. The AIA did request building protection during the congressional hearings that led to the 1909 Copyright Act. STENOGRAPHIC REPORT OF THE PROCEEDINGS OF THE LIBRARIAN'S CONFERENCE ON COPYRIGHT 11, 3d Sess. (Mar. 13–16, 1906) (testimony of Mr. Glenn Brown, AIA).

303. H.R. REP. NO. 101-735, at 12 (1990). Whether building protection is needed for Berne compliance remains an open question. 1989 COPYRIGHT OFFICE REPORT, *supra* note 70, at 101–40.

304. JESSICA D. LITMAN, DIGITAL COPYRIGHT 22–34 (2001).

305. First-mover advantages are more commonly associated with trade secrecy than with copyright. Lemley, *supra* note 256, at 330; *cf. infra* notes 337–342 (noting the parallels between development-medium copyright and trade secrecy).

306. See *supra* Section III.B.1.

scale projects and years for large-scale projects. Drawing protection thus provides a kind of “hot design” protection—a slow-motion version of the “hot news” protection of misappropriation under *International News Service v. Associated Press*.³⁰⁷ Drawing protection also increases the cost of slavish, literal copying.³⁰⁸ While tracing blueprints, photocopying drawings, and printing new copies of electronic files are inexpensive ways to make the plans needed for slavish building copies, reverse engineering a building into a set of construction documents through building copying is costly. Many of the details needed to produce the construction documents cannot even be discerned from visual inspection of a building. When copying uses buildings as source material, it is more expensive to produce an identical copy than a loose copy, providing incentives for competitors to mix their own original contributions in with any expression that they copy. Looking at a building and deciding that a roof should have a similar wavy appearance, a façade should have a similar window pattern, or a disposition of spaces should have a similar spatial flow is much easier than reproducing those building features exactly.³⁰⁹

These arguments that drawing protection alone restricts competition in the market for copies of custom buildings are technically correct, but they miss the bigger point: there is no severe public goods problem in custom architecture in the first place.³¹⁰ Architects doing custom work do not require profits from the sale of multiple building-copies of their works to recoup their creativity costs. They recoup each project’s costs from the client fees on the front end, collecting these fees in full upon the realization of the first building in which the work is fixed.³¹¹ Copyright does not need to play the competition-restricting role that the market-buffer theory scripts for it on the back end. The case for copyright protection for buildings is

307. *Int’l News Serv. v. Associated Press*, 248 U.S. 215 (1918).

308. Public goods problems are less severe when the gap between the author’s creativity costs and the costs of copying is smaller. Richard A. Posner, *Intellectual Property: The Law and Economics Approach*, 19 J. ECON. PERSP. 57, 66 (2005).

309. The fact that identical copies are cheaper to produce than looser copies inverts the conventional assumption in intellectual property scholarship that closer copying is less costly.

310. *Cf.* Stewart E. Sterk, *Rhetoric and Reality in Copyright Law*, 94 MICH. L. REV. 1197, 1226 (1996) (arguing that architects had sufficient incentives to create before the AWCPA).

311. *See* Bucher, *supra* note 15, at 1269–70; Daniel Su, Note, *Substantial Similarity and Architectural Works: Filtering Out “Total Concept and Feel,”* 101 NW. U. L. REV. 1851, 1856 (2007); Raphael Winick, Note, *Copyright Protection for Architecture After the Architectural Works Copyright Protection Act of 1990*, 41 DUKE L.J. 1598, 1606 (1992). Why clients are willing to pay for the full creativity costs associated with their designs—that is, why they don’t demand a discount based on the expectation of back-end licensing revenue—raises an interesting question. Music copyright would not be needed either if listeners were willing to commission musicians to write songs and pay all of their creativity costs, but listeners are rarely willing to commission musical works. Why is custom architecture different? The author explores this question at length in other work. Collins, *supra* note 19 (arguing that client fees that cover architects’ creativity costs arise from a combination of the economics of customization and the copying norms of the architectural profession).

therefore weak under the market-buffer theory because custom architects have sufficient incentives to produce creative works without it.³¹²

However, this fees-are-enough argument does not mean that copyright is irrelevant to the business model through which architects recoup their creativity costs. To the contrary, copyright is critical to ensure that architects can collect client fees. This is precisely what copyright does under the transactional theory: it prevents clients from appropriating architects' works without paying architects after architects disclose their works. Perhaps counterintuitively, copyright achieves the end goal that is usually associated with the market-buffer theory (fostering creativity), not by playing the role scripted by the market-buffer theory (restricting competition in the market for buildings), but rather by playing the role scripted by the transactional theory (ensuring architects get paid when they sell their works as information commodities).³¹³ Drawing protection provides enough protection for copyright to play its transactional role and provide architects with incentives to create.

312. In the related context of fine art, William Landes and Richard Posner argue that “[t]he overall case for copyright protection of works of art is weaker than that for copyright protection of most other expressive works” because “[t]he main source of the artist’s income . . . typically comes from the sale of the work itself [i.e., the first copy crafted by the author] rather than from the sale of [additional] copies” or reproductions. LANDES & POSNER, *supra* note 3, at 254, 257. Amy Adler drills down on this argument by suggesting that the value of authenticity is what allows the artist’s income to flow primarily from the sale of the first (or original) copy. Amy Adler, *Why Art Does Not Need Copyright*, 86 GEO. WASH. L. REV. 313, 329 (2018). Architects do not sell buildings, nor is authenticity likely as important in architecture as it is in fine art. Nonetheless, the custom-architecture argument parallels the fine-art argument in that architects’ main source of income has been realized upon the construction of the first copy of a building.

313. This insight may be counterintuitive because the market-buffer theory is so dominant in intellectual property scholarship and so strongly associated with incentives to create works that the transactional theory is often defined in the negative as a theory that does something other than provide incentives to create works. *See, e.g.*, Burstein, *supra* note 5, at 245 (stating in the patent context that the transactional theory “is aimed not at providing incentives for invention . . . but at reducing the costs of exchanging critical information”); *see also id.* at 246 (describing the social benefit of intellectual property under the transactional theory as a static benefit that is independent of the dynamic benefit that patent provides under the market-buffer theory). This definition by exclusion of the social benefits that transactional copyright can produce is unduly narrow. Copyright can generate incentives for creative production by facilitating transactions, such as the architect–client transaction, in which the author discloses an early-stage work and, in return, the information purchaser agrees to pay for the author to produce a more fully developed work. Whether the post-disclosure conduct that these transactions fund is a continuation of the conception of a work (akin to “invention”) or the development of an already conceived work into a good that consumers want (akin to “innovation”) lies in the eye of the beholder. *Cf. id.* at 237–38 (discussing the invention–innovation distinction). Similarly, whether funding for the post-disclosure conduct provides *ex ante* or *ex post* incentives, Lemley, *supra* note 52, at 130, hinges on the point in time at which one deems the initial conception to be complete—a time that is difficult to identify in the iterative evolution and gradual refinement of an architectural work.

E. Stock Architecture and Copyright Tailoring

The previous Section argued that the building/drawing dichotomy is good policy for custom architecture under a pluralistic, utilitarian justification for copyright that considers both the incentive and transactional theories. A word of caution about the implications of this conclusion for a proposal to return to the building/drawing dichotomy of pre-AWCPA copyright, however, is important to note. The normative arguments presented in this Article focus exclusively on custom works, but architectural copyright also protects stock works.

Custom works are designs that architects craft to suit the tastes and needs of specific, known clients. Custom design is synonymous with architecture to the extent that the works produced by the architectural profession define architecture. Most professional architects make their livelihood through custom design.³¹⁴ The money that clients spend on constructing custom buildings is the leading indicator of the economic health of the architectural profession.³¹⁵ Custom design is what is recounted in nearly all books describing the nature of the task that architects perform, whether those books are handbooks for seasoned professionals or explanations for laypersons curious about what it means to be an architect.³¹⁶ The vast majority of the works that gain recognition as high-quality, creative works within the profession result from the custom design process.³¹⁷

Yet, significant swaths of the built environment produced over the last several decades have resulted from a stock-design process in which architectural works are designed on a speculative basis to appeal to a mass audience. Most importantly, a large portion of the market for single-family residential homes in developer-driven suburban subdivisions—which, in turn, is a significant sector of the construction industry as a whole—consists of stock designs repeated, sometimes in mirror images, up and down the streets.³¹⁸

314. The developer-driven market for single-family homes sidelines architects. Robert Gutman, *Two Questions for Architecture*, in ARCHITECTURE FROM THE OUTSIDE IN: SELECTED ESSAYS BY ROBERT GUTMAN 239, 241–42 (Dana Cuff & John Wriedt eds., 2010); ROBERT GUTMAN, THE DESIGN OF AMERICAN HOUSING: A REAPPRAISAL OF THE ARCHITECT'S ROLE 8, 14, 18–19, 56 (1985).

315. The American Institute of Architects measures the economic health of the architectural profession by charting national spending on nonresidential building, which is almost exclusively custom work (excepting commercial trade dress). AM. INST. OF ARCHITECTS, FIRM SURVEY REPORT 5 (2016).

316. See LEWIS, *supra* note 211, at 196–321; AIA HANDBOOK, *supra* note 212, at 654–88.

317. Robert Gutman, *U.S. Architects and Housing: 5 Relationships*, in ARCHITECTURE FROM THE OUTSIDE IN: SELECTED ESSAYS BY ROBERT GUTMAN, *supra* note 314, at 227, 232 (noting that stock-plan designers “occupy the same status within the [architectural] profession that ‘ambulance chasers’ occupy in the legal profession or that ‘abortionists’ once held in the medical profession”).

318. PAUL L. KNOX, METROBURBIA USA (2008) (describing the homebuilding industry and the suburbs that it produces).

Even if the building/drawing dichotomy is the optimal copyright regime for custom architecture, the existence of stock-design, single-family homes complicates the argument in favor of turning back the clock on architectural copyright. The economics of custom architecture and stock architecture do not fit the same mold. The fees from the first consumer to pay for a stock-plan house are unlikely to cover the designer's full creativity costs, and the argument that building protection does not provide significant benefits under the market-buffer theory loses its traction when applied to stock works. Building protection for stock-plan homes could, in theory, provide a social benefit by restricting competition in the market for single-family homes and ensuring sufficient incentives for the production of creative, quality designs. Assuming that the same copyright regime will govern both custom and stock works, more analysis is needed to seal the case for returning to the building/drawing dichotomy.³¹⁹ Whether building protection promotes investment in creative designs for stock, single-family home designs and, if it does, whether that incentive benefit is greater than the access costs that building protection creates for both custom and stock works, are questions that lie beyond the scope of this Article.³²⁰

IV. THE TEMPLATE FOR JUSTIFIED MEDIA DISCRIMINATION

The previous Part zoomed in on the specifics of creative production in custom architecture to reveal the hidden wisdom of the building/drawing dichotomy. This Part zooms out to examine the extent to which that hidden wisdom generalizes to other types of works. It identifies a three-condition template for potentially justified media discrimination in copyright's subject matter.

First, there must be a factual basis for a *consumption-medium/development-medium dichotomy*. The work at issue must be fixed in different media at different points in its lifecycle. It must be fixed in a development medium when it is being refined and commercialized and then

319. In theory, one could draw a line between custom and stock works and adopt the building/drawing dichotomy for the former, but not the latter. However, this micro-tailoring of copyright would require the kind of easily-gamed distinction that makes the administrative costs of individualizing copyright to a particular mode of creative production overwhelm the benefits of achieving right-sized protection. See Carroll, *supra* note 28, at 1424–30.

320. The author explores these questions elsewhere. Collins, *supra* note 19, at 41–43. The incentive benefits of building protection for stock works is likely small. In fact, it would be quite ironic were the case for the persistence of building protection for all architectural works to rest on the incentives for creativity that building protection has generated in stock-plan homes, given the dearth of creativity in our developer-driven, suburban subdivisions over the last quarter century. *Id.* The costs of building protection are likely significant, especially in light of recent trolling activity involving copyrights on single-family homes. *Id.*

in a consumption medium when it is later being made available for public use and enjoyment. For example, audiovisual works have specs, screenplays, and storyboards as development media, and film and video as consumption media. Similarly, musical works are often developed in the form of sheet music and consumed through phonograms.³²¹ The factual basis for the dichotomy exists whenever audiences desire particular sensory experiences or functional artifacts, authors use representations of those experiences or artifacts to develop the works, and the representations are not substitutes to the consumers for the experiences or artifacts.

Second, copyright protection for the work must play a welfare-enhancing role under the transactional theory. Authors must face disclosure dilemmas when they sell their works as information commodities.³²² In addition, copyright must be capable of resolving these disclosure dilemmas.³²³

Third, copyright protection for the work fixed in consumption-medium copies must generate a net cost under the market-buffer theory. That is, the ability of competitors to freely copy from the consumption medium must not lead to a public goods problem or the underproduction of creative works.³²⁴

When these three conditions are satisfied, a consumption-medium/development-medium dichotomy may be good policy. Just as eliminating building protection does, eliminating protection for works fixed in the consumption medium creates a two-phase right that is economically strong during work development and commercialization and weak once commercialized copies of the work are available on the market.³²⁵ In turn,

321. There is no dichotomy as a factual matter if the development and consumption media are identical, such as when a clay sculptor develops works through working studies in clay.

322. See *supra* Section III.B.2. There are no disclosure dilemmas to resolve if authors do not sell their works as information commodities prior to commercialization, such as when authors self-publish novels.

323. See *supra* Section III.B.3. Copyright cannot resolve disclosure dilemmas if commercially significant uses of disclosed works do not require copies that fall within copyright's scope regardless of the media in which the copies are fixed. For example, copyright does little to resolve disclosure dilemmas when the primary value of a work lies in the ideas or facts that it conveys. See *supra* notes 239–242 and accompanying text.

324. Some scholars argue that there may be sufficient incentives for creativity in fields currently within copyright's ambit, such as software, absent copyright's restrictions on competition. See Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281 (1970); Pamela Samuelson, *The Uneasy Case for Software Copyrights Revisited*, 79 GEO. WASH. L. REV. 1746 (2011). Other scholars highlight that creativity flourishes in some of copyright's "negative spaces." See KATE DARLING & AARON PERZANOWSKI, CREATIVITY WITHOUT LAW: CHALLENGING THE ASSUMPTIONS OF INTELLECTUAL PROPERTY 249–69 (2017); KAL RAUSTIALA & CHRISTOPHER SPRIGMAN, THE KNOCKOFF ECONOMY: HOW IMITATION SPARKS INNOVATION (2012).

325. The public availability of a commercialized copy plays the same role in the generic consumption-medium/development-medium dichotomy that the construction of a building plays in the building/drawing dichotomy: it marks the downshift in copyright's economic importance. See *supra* notes 296–299 and accompanying text. Interestingly, there is precedent in the 1976 Act for reducing

this two-phase structure leads to a win–tie result in the tradeoff between costs and benefits under a pluralistic, utilitarian justification for copyright.³²⁶

The tie on the benefit side follows from protection for the development medium alone doing just as good a job of resolving authors' disclosure dilemmas as protection for all media does.³²⁷ Authors do not face disclosure dilemmas in transactions that occur after consumption-medium copies are available on the market,³²⁸ so transactional copyright only needs to be concerned with providing protection during the pre-market phase of a work's lifecycle when the work is still undergoing refinement and commercialization. In this early phase, works are only available to the public in the form of development-medium copies, making protection for the development medium equivalent to protection for all media as a practical matter. Furthermore, the availability of a consumption-medium copy, and thus the downshift in copyright's economic importance, will not occur so soon that it will undermine authors' interests. Authors will not produce or authorize consumption-medium copies until they have a binding contract for full payment in place,³²⁹ and making unauthorized consumption-medium copies requires infringement, providing the author a remedy for appropriation.³³⁰ In sum, the privilege to lawfully copy from

protection upon a work's authorized commercialization. 17 U.S.C. § 113(c) (2018) (limiting reproduction rights when "a work [is] lawfully reproduced in useful articles that have been offered for sale or other distribution to the public").

326. See *supra* Section III.C.

327. Condition three establishes that protection for the consumption medium does not provide any benefits, so the argument only examines the benefits—or, more precisely, the lack of benefits—from building protection under the transactional theory.

328. Disclosure dilemmas only exist when work purchasers do not know, or cannot readily gain knowledge of, the work that the author is selling. See *supra* notes 198–199 and accompanying text. Copies of works fixed in the consumption medium are usually self-informing in that they give their possessor knowledge of the work.

329. Authors must exercise care when making and displaying prototypes, which are copies in the consumption medium, during the commercialization process. Cf. *supra* note 285 (noting that prototypes were not a concern in custom architecture).

330. The author may have to sue someone other than an appropriating transactional partner to obtain that remedy. See *supra* note 285. The likelihood of unauthorized copies of buildings was low due to a number of architecture-specific factors. *Id.* The likelihood of unauthorized copies in the consumption media in other fields is likely higher.

The legal assertion that making the first consumption-medium copy without the author's permission entails infringement assumes that copying from a development-medium copy and into a consumption-medium copy constitutes infringement. That is, it assumes that copyright grants authors the equivalent of the execution right in architectural plans that pre-AWCPA copyright did not grant. See *supra* notes 71–73, 132–135 and accompanying text (noting that pre-AWCPA copyright did not grant an execution right). This assumption is plausible because the consumption-medium/development-medium dichotomy is conceptually compatible with granting authors exclusive rights to make consumption-media copies from drawing-media copies. See *supra* note 290 and accompanying text. Saying that a copy is not

consumption-medium copies that the consumption-medium/development-medium dichotomy grants to the public does not interfere with copyright's ability to play the role that the transactional theory scripts for it.

The win on the cost side arises because downsizing copyright from full, media-neutral protection to protection for only the development medium reduces access costs. After commercialization, the public's ability to copy from the consumption medium reduces the tax that copyright imposes on both literal copying and creative adaptation. Competitors can wait until after commercialization and copy in a time-delayed manner, but transactional partners who seek to participate in the commercialization process and whose potential appropriation creates authors' disclosure dilemmas cannot.

The point of identifying the three-condition template is not to identify the subject matters that are the closest cousins of custom architecture, such as custom-designed useful articles. Rather, the point is to test the limits of generalization and probe the outer boundary of the contexts in which media discrimination in copyright's subject matter may be good policy. The template should not be taken to suggest that media discrimination in subject matter should become the new normal. It is not clear how many categories of authorial production satisfy the three conditions as an empirical matter. Furthermore, tailoring copyright—whether by imposing media discrimination in subject matter or by pulling the more conventional policy levers of scope and duration—can generate significant administrative costs that must be included in the welfare calculus.³³¹ Nonetheless, it is interesting to note that the template reaches well beyond custom architecture. In fact, two of the most salient features of the building/drawing dichotomy in architectural copyright turn out not to be limitations on the template's generalizability.

First, although the origins of the building/drawing dichotomy are intimately intertwined with concerns about the costs of copyright protection for functional works,³³² the template identifies the possibility of a consumption-medium/development-medium dichotomy in subject matters that do not raise functionality concerns. For example, consider a municipality that puts out a call for artists to produce public art in the form of a request for proposals.³³³ The municipality commissions the chosen artists, so artists can recoup their creativity costs without any restrictions on

protected subject matter does not require also saying that making a consumption-medium copy by copying from a development-medium copy is not infringement.

331. These costs are higher when identifying the subject matter that is to be governed by different rules requires drawing distinctions that are complex or jurisprudentially unstable. Carroll, *supra* note 28, at 1424–30.

332. See *supra* Section II.C.

333. See LYNN BASA, THE ARTIST'S GUIDE TO PUBLIC ART: HOW TO FIND AND WIN COMMISSIONS 31–41 (2008).

competition for consumption-medium copies (condition three).³³⁴ Artists commonly develop public art in media other than the medium in which the copy eventually installed in the public place is fixed (condition one). Lighting, mosaics, glass, textiles, steel sculpture—artists develop all of these artworks in alternative media that are less costly, smaller in scale, and more easily manipulated in the studio. Finally, artists who submit proposals in response to requests therefore face disclosure dilemmas that copyright can solve (condition two). Artists may hesitate to disclose their works to the municipality because the city could appropriate them by taking them to manufacturers to produce the copy to be installed in the public place and cutting out the artist's fee. However, being understandably hesitant to commission an artist without knowing the artist's proposal, the municipality is likely to demand disclosure before payment. Protection for only the development medium can resolve the disclosure dilemma without generating the access costs of full, media-neutral copyright, even though there are no functionality concerns.³³⁵

Second, although customized architecture usually results in the production of a single copy of a work in the consumption medium (i.e., a single building), the consumption-medium/development-medium dichotomy can also be good policy for commoditized works that are commercialized through multiple consumption-medium copies. To appreciate this point, consider again a variant of the hypothetical sketched above in which a doll designer seeks to sell a doll design to a manufacturer.³³⁶ Sketches of dolls—development-medium copies—and the dolls themselves—consumption-medium copies—are not interchangeable; children will not be content playing with the sketches (condition one). The doll designer faces a disclosure dilemma when selling the work to a manufacturer that copyright can resolve (condition two). Finally, assume that there are sufficient incentives to create and commercialize dolls absent copyright protection for the dolls themselves because, for example, some combination of a first-mover advantage, branding, and profits from the sale of complementary goods provides enough restriction on competition, and thus enough profit, to offset the author's creativity costs (condition three).

334. If the public agency were to rely on merchandizing rights in the commissioned work to fund the commissioning, then condition three would not be satisfied.

335. There is one way in which the functionality concerns raised by architectural copyright differentiate the building/drawing dichotomy from most other consumption-medium/development-medium dichotomies. Most of the dichotomies depart downward from run-of-the-mill copyright by eliminating protection for the consumption medium. However, it is possible to conceive of the building/drawing dichotomy as departing upward by augmenting protection for the development medium. *See supra* notes 150–152 and accompanying text.

336. *See supra* notes 196–197 and accompanying text.

Development-medium copyright alone resolves authors' disclosure dilemmas just as well as full, media-neutral protection does, but it generates significantly reduced access costs.

The doll hypothetical is a good vehicle for highlighting the parallel between copyright that only protects the development medium and trade secrecy for self-informing goods. Like development-medium copyright, trade secrecy for self-informing goods provides robust protection that helps to resolve disclosure dilemmas³³⁷ but that only lasts until a commercialized good embodying the protected information is put on the market.³³⁸ Once the goods/works are made available to consumers, neither regime guarantees market exclusivity, apart from a first-mover advantage.³³⁹ For example, a doll design could receive effective protection either under development-medium copyright or as a trade secret only until, at the latest, the time at which dolls that can be played with become available and competitors can copy the design from the marketed dolls. However, development-medium copyright and trade secrecy fail to provide effective protection after commercialization for different reasons. While trade secrecy is a *legally* defeasible interest, development-medium copyright is an *economically* defeasible interest.³⁴⁰ The two regimes also differ in their utility to the rights holders because development-medium copyright reacts to sunlight better than trade secrecy does: it can retain its economic importance even after the copyrighted work becomes publicly known. Copyright protection for only the development medium is thus more valuable than trade secrecy as a tool for overcoming disclosure dilemmas in situations in which the protected

337. Trade secrecy is widely recognized as a tool for resolving disclosure dilemmas. See Lemley, *supra* note 256, at 336–37. The parallels in the policy justifications of trade secrecy and development-medium copyright are perhaps unsurprising because each one hybridizes *in rem* and *in personam* rights in different ways. Trade secrecy imposes obligations on strangers in some cases, but it involves rights that are only good against contractual partners in most cases. Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241 (1998). Development-medium copyright is always good against strangers in a legal sense, but transactional partners feel the brunt of its restrictive impact. See *supra* notes 300–301 and accompanying text.

338. Trade secrecy only protects information that is not generally known to, or is not readily ascertainable by, the public. UNIF. TRADE SECRETS ACT § 1(4)(i) (NAT'L CONFERENCE OF COMM'RS ON UNIF. STATE LAWS 1985). It permits competitors to reverse engineer marketed goods. *Kadant, Inc. v. Seeley Mach., Inc.*, 244 F. Supp. 2d 19, 37–38 (N.D.N.Y. 2003). Thus, the marketing of a self-informing good usually makes the information embodied in the good ineligible for trade secrecy protection. *Vacco Indus., Inc. v. Van Den Berg*, 6 Cal. Rptr. 2d 602, 611 (Ct. App. 1992).

339. Compare *supra* notes 305–307 and accompanying text (noting that drawing protection provides a first-mover advantage for custom architecture), with *Winston Research Corp. v. Minn. Mining & Mfg. Co.*, 350 F.2d 134 (9th Cir. 1965) (calibrating trade secrecy remedies to compensate for a first-mover advantage).

340. A defeasible interest is “[a]n interest that the holder may enjoy until the occurrence of a condition.” *Defeasible Interest*, BLACK'S LAW DICTIONARY (9th ed. 2009). Trade secrecy is a legally defeasible interest because the subject matter is no longer protected once a self-informing product hits the market. Development-medium copyright is economically defeasible because the marketing of a self-informing copy of a work saps copyright protection of its value.

information must become publicly known prior to commercialization. For example, regulatory approval could require disclosure,³⁴¹ or authors might benefit from publishing their early-stage works to send out a beacon-like, one-to-many broadcast and allow transactional partners who are efficient commercializers to bring themselves to the authors' attention.³⁴²

CONCLUSION

Media neutrality in subject matter is a bedrock principle of contemporary copyright law.³⁴³ This Article identifies a sound policy basis for departing from that principle and embracing media discrimination in subject matter instead. In some contexts, copyright's primary function is not to restrict competition in the market for copies of works and augment profits but rather to resolve disclosure dilemmas and facilitate pre-commercialization transactions that involve the sale of works as information commodities. In these contexts, adopting media discrimination in subject matter, and protecting works when they are fixed in a development medium but not when they are fixed in a consumption medium, preserves copyright's benefits while reducing its costs.

This justification of media discrimination in subject matter provides an alternative normative foundation for the building/drawing dichotomy of pre-AWCPA copyright as applied to custom architecture, the dominant mode of design in the architectural profession. The dichotomy protects architecture's development medium (drawings) but not its consumption medium (buildings). It is good policy because, in the context of custom design, copyright's principal function is to facilitate the architect-client transaction and prevent clients from appropriating architects' works without full payment, not to tamp down on copying by competitors in the market for multiple copies of buildings.

341. Trade secrecy would not be an effective tool for resolving authors' disclosure dilemmas in either the custom architecture or the public art scenario discussed above. *See supra* notes 256–257, 333–335 and accompanying text.

342. *See* Kitch, *supra* note 5, at 278–79; Kieff, *IP Transactions*, *supra* note 5, at 735–36.

343. The only historical exception to media neutrality arose as a way of limiting the reach of copyright's denial of protection for three-dimensional, utilitarian articles. *See supra* Section II.C.