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COPYRIGHT PROTECTION FOR ARCHITECTURAL DESIGN: A CONCEPTUAL AND PRACTICAL CRITICISM

Gregory B. Hancks*

Abstract: The Architectural Works Copyright Protection Act of 1990 (AWCPA) extended copyright protection to architectural design as part of Congress's effort to conform U.S. law to the Berne Convention. U.S. courts previously had treated architecture as a "useful article" and generally had denied it protection under the "separability" doctrine. The AWCPA treats architecture similarly to other categories of copyrightable subject matter. Conceptually, this is inappropriate because (1) architectural design is a professional service, (2) architecture is a part of our public environment, and (3) architecture's expressive aspects cannot be adequately separated from its useful aspects. As a practical matter, the AWCPA imposes costs on architects that outweigh the benefits that it confers on them. To help alleviate this result, the AWCPA should be amended to limit protection to designs with artistic or aesthetic expression. Nevertheless, architects working under the AWCPA should alter their relationships with their employees, consultants, and clients to minimize liability for infringement.

United States copyright law did not protect architectural design prior to 1990. Any or all of a building's features could be copied, whether observed in drawings, photographs, or the structure itself. Copyright law limited this borrowing in only two ways. The reproduction of architectural drawings themselves was prohibited, and a sculptural...
feature of a building could not be copied if that feature could be considered a work of art independent of the building’s useful
to the AWCPA. Part II provides a conceptual framework for understanding architectural design as a professional service and as a part of our public environment—characteristics which copyright law does not adequately take into account. Part II also describes why traditional copyright doctrine cannot resolve the problems inherent in protecting the design of useful articles such as architecture. Part III outlines the practical problems that the AWCPA creates and predicts how courts, architects, and others involved in the design and construction process will react. The Comment concludes that architects should alter their professional relationships to minimize their liability and that the AWCPA should be amended to protect only designs with artistic or aesthetic expression.

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4. See infra notes 12–19 and accompanying text.
6. § 703, 104 Stat. at 5133 (codified at 17 U.S.C. § 102(a) (1994)).
I. HISTORICAL TREATMENT OF ARCHITECTURE IN U.S. COPYRIGHT LAW

A. Architectural Copyright Prior to the A WCPA

In the Copyright Act of 1909 ("1909 Act"), Congress protected "all the writings of an author" upon publication if a notice of copyright was affixed to each copy. The 1909 Act did not further limit the subject matter that was protectable but did provide a list of registration classifications, which included "works of art" and "designs for works of art." Sculpture clearly could be copyrighted as a work of art. Monumental architecture, which is essentially large-scale sculpture, could be copyrighted for the same reason.

When confronted with copyright claims on utilitarian designs with expressive features, courts concluded that only a feature which could "be identified separately" and was "capable of existing independently as a work of art" could be copyrighted. This "separability" doctrine effectively excluded most architectural design from copyright protection under the 1909 Act because nearly all such design is useful. In the Copyright Act of 1976 ("1976 Act"), Congress retained the restriction on copyright for useful articles and explicitly adopted the court-created

15. Carol Barnhart, 773 F.2d at 416 (quoting Copyright Office regulation, 37 C.F.R. § 202.10(e) (1959)) (emphasis added).
17. H.R. Rep. No. 1476, 94th Cong., 2d Sess. 54 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5667-68 [hereinafter 1976 H.R. Rep.] (explaining that works of "applied art," which are pictorial, graphic, or sculptural works embodied in useful articles, are protectable, but industrial designs are not); see also 17 U.S.C. § 101 (1994) (defining "useful article" as "an article having an intrinsic utilitarian function" other than to create an appearance or to convey information); Carol Barnhart, 773 F.2d at 418-19 (holding that mannequins for clothing display are uncopyrightable useful articles).
doctrine used to define what is copyrightable: 18 "[T]he design of a useful article" cannot be copyrighted unless it incorporates "pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." 19

The House Report on the 1976 Act explained that this separate identification may be either physical or conceptual. 20 The test of physical separability is easy to apply to a building's ornamental feature that could be removed and used as free-standing sculpture. Applying the conceptual separability test to architectural design is considerably more problematic. It requires the separation of expression from utility. This task must be accomplished in the face of the design trend of the past century which has created expression primarily through the satisfaction of function, rather than by application of ornament. 21 The 1976 Act, therefore, effectively precluded copyright in a built structure itself or in its design. 22

Architectural design might have found practical copyright protection under either the 1909 Act or the 1976 Act, however, were it not for the court-created distinction between the publication of a work which describes a useful art (such as accounting, medicine, or farming) and the use of the art described. 23 The U.S. Supreme Court had set forth this standard in Baker v. Selden. 24 Prior to the AWCPA, Baker guided courts in distinguishing the copyright in an architectural drawing from rights in the design depicted by that drawing. 25 As a result, an architect could have a copyright in the drawings of a building without having a right to

control the use of the design itself.\textsuperscript{26} Thus, the architect could not prevent someone else from constructing a building of the same design.\textsuperscript{27}

Courts relied on this distinction when applying both the 1909 Act and the 1976 Act to architecture, analyzing rights in a drawing separately from rights in the design.\textsuperscript{28} The 1909 Act, in fact, listed "technical" drawings as works which could obtain copyright registration.\textsuperscript{29} Consequently, architectural drawings generally were protected against reproduction in the form of copied drawings.\textsuperscript{30}

Under the 1909 Act, courts could have held that the construction of a building from copyrighted drawings is copying in a different medium. This would have given the copyright owner the "right of execution."\textsuperscript{31} Instead, a consensus developed, relying on \textit{Baker v. Selden}, that such construction was a use of the "useful art" depicted by the drawings.\textsuperscript{32} As a result, an architectural design embodied in either drawings or in a built structure could not be protected from copying unless the design itself was copyrightable subject matter.

\textbf{B. Compliance with the Berne Convention and Enactment of the AWCPA}

The exclusion of architectural design from copyright protection by the 1976 Act was bound to create tension with a primary purpose of the act: to move U.S. copyright law toward conformity with the Berne Convention for the Protection of Literary and Artistic Works ("Berne Convention" or "Berne").\textsuperscript{33} The United States had wanted to join Berne

\begin{footnotes}
\item 27. Architects have argued that the exclusive right to this use of an architectural design, which this Comment refers to as the "right of execution," should have been part of the copyright in architectural drawings. See infra notes 51, 61 and accompanying text.
\item 31. See supra note 27 and accompanying text.
\item 33. See 1976 H.R. Rep., supra note 17, at 47, reprinted in 1976 U.S.C.C.A.N. at 5660 (describing role of Berne standards in U.S. copyright law revision). "For more than 100 years, the Berne Convention has been the major multilateral agreement governing international copyright relations"
since at least the 1920s\textsuperscript{34} but had been prevented by significant conflicts between U.S. copyright law and Berne standards,\textsuperscript{35} which are of primarily European origin.\textsuperscript{36}

Berne has specifically included works of architecture as protected subject matter since 1908.\textsuperscript{37} Berne member countries typically list works of architecture as a category of protected subject matter in their implementing legislation.\textsuperscript{38} There are few reported cases on architectural copyright in countries adhering to the Berne Convention. Those which exist, however, demonstrate that the owners of copyright in works of architecture have been given rights that go substantially beyond what U.S. law allowed prior to the AWCPA.\textsuperscript{39}
Congress had given scant attention to adding architecture as protected subject matter in the 1976 Act, but the issue was analyzed in more depth when legislation to implement the Berne Convention was considered in 1986. At that time, Congress expressed concern about the unknown effects of extending copyright protection to creative works that are "more appropriate to design or patent protection." Congress also was uncertain whether the protection already available for architecture was sufficient to comply with Berne. As a result, the Berne Convention Implementation Act of 1988 did not add architecture as a category of protected subject matter. However the uncertainty prompted Rep. Robert Kastenmeier to request the Copyright Office to study the issue.

The Register of Copyrights, Ralph Oman, issued his report in June 1989 after an opportunity for public comment. Oman previously had acknowledged that "[p]rotection for architectural works would be a major change in American law." But the report glossed over objections raised by the American Institute of Architects (AIA), which stated that such a change would do more harm than good: The AIA believed that such protection would have a chilling effect on progress in architectural design by discouraging architects from incorporating new stylistic ideas into their work out of fear of litigation. The report presented four options without making a recommendation.

40. See Copyright Office Report, supra note 2, at 97.
41. Id. at 102–11.
43. Copyright Office Report, supra note 2, at 101.
46. Copyright Office Report, supra note 2, at app. A.
47. Id. at vii.
49. Copyright Office Report, supra note 2, at 117 (quoting written remarks of Ralph Oman, Register of Copyrights, at Senate hearing).
50. The AIA is a professional association with a membership that includes approximately two-thirds of all licensed architects practicing in the United States. Id. at app. C, Letter from Christopher A. Meyer, attorney for AIA, to Ralph Oman, Register of Copyrights 1 (Sept. 16, 1988).
51. See id. at xv–xvi, 4, 109–11, 195. The AIA believed that subject matter protection for architecture was "undesirable" but did support adding a right of execution to copyrighted
Rep. Kastenmeier read the report to say that U.S. law should be amended to provide protection expressly for architectural design.\textsuperscript{53} He introduced a bill\textsuperscript{54} (later enacted in amended form as the AWCPA) which embraced the broadest option presented in the report: creation of a new subject matter category for works of architecture. In introducing the bill, he made clear that its purpose was to comply with the Berne Convention, and he asserted that it made the minimum changes necessary to comply.\textsuperscript{55}

Rep. Kastenmeier claimed that his bill avoided the controversial separability doctrine which had previously applied to all useful articles\textsuperscript{56} but acknowledged that courts would nevertheless need to distinguish between architecture and "mere construction."\textsuperscript{57} He proposed a two-step test to make this determination: "First, an architectural work should be examined to determine whether there are original, artistic elements present, including overall shape. If so, a second step is reached to examine whether the original, artistic elements are functionally required. If the elements are not absolutely functionally required, the work is protectable."\textsuperscript{58}

The House hearing on the bill explored this problem of defining the scope of protected subject matter.\textsuperscript{59} At the hearing, the AIA restated the doubts\textsuperscript{60} it had expressed in the Copyright Office report about the broad architectural drawings. \textit{Id.} at app. C, Letter from Christopher A. Meyer, attorney for AIA, to Ralph Oman, Register of Copyrights 2, 5 (Sept. 16, 1988). \textit{See also infra note 97 and accompanying text.}

\textsuperscript{52.} The options were: (1) to protect works of architecture as a new category of protected subject matter; (2) to provide a right of execution for architectural drawings; (3) to exclude unique architectural structures from the category of useful articles; and (4) to make no statutory revisions. Copyright Office Report, supra note 2, at 223–26.


\textsuperscript{55.} 136 Cong. Rec. 1733–34 (1990). Rep. Kastenmeier argued against the AIA's proposal to simply add a right of execution for drawings, saying that granting such a right would lead to excessively broad protection of useful, but non-architectural, design. \textit{Id.} at 1734.

\textsuperscript{56.} \textit{See supra} text accompanying notes 14–19.


\textsuperscript{59.} \textit{See generally} AWCPA Hearing, supra note 45.

\textsuperscript{60.} \textit{See supra} note 51 and accompanying text.
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protection proposed and again requested that only a right of execution be extended to drawings.\(^6\) The bill nevertheless retained architectural works as newly protected subject matter, with the House Report reaffirming that the statute's purpose was to comply with Berne standards.\(^6\) The AWCPA was signed into law and became effective on Dec. 1, 1990.\(^6\)

By adding protection for architectural design, the AWCPA thus incorporates into U.S. copyright law a policy which originated in Europe, which is not supported by the profession it purports to protect, and the application of which is untested in the United States. This result may be unavoidable, given the overriding importance of adhering to Berne to protect other subject matter in international markets.\(^6\) The scope of what is now protected is uncertain, however. The AWCPA itself provides little guidance beyond the mere use of the term "architectural."\(^6\) The statutory definition of "architectural work," if anything, broadens its meaning by incorporating the term "building" without qualification.\(^6\) The only express limitation is that "individual standard features" are not protected.\(^6\)

Cases brought under the AWCPA will challenge courts to declare whether particular buildings are or are not works of architecture.\(^6\) This

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\(^6\) See § 702, supra note 66. Regulations on registration provide the Copyright Office's view on what may be protected as an architectural work. See 37 C.F.R. § 202 (1995). No limitations on architecture appear under the heading "Material not subject to copyright." See 37 C.F.R. § 202.1. A protected "building" does not need to have artistic content. See 37 C.F.R. § 202.11(b)(2). In fact, the Copyright Office describes methods for registering the design of mass-produced "tract housing." See 37 C.F.R. § 202.11(c)(2). However "[s]tandard configurations of spaces" are excluded from protection. 37 C.F.R. § 202.11(d)(2).

68. The lag between the enactment of the AWCPA and reported cases can be explained by the fact that only designs which are created, published, or built after Dec. 1, 1990, are protected. See Pub. L. No. 101-650, § 706, 104 Stat. 5089, 5134 (1990). An infringement suit would not be commenced.
determination closely resembles the question presented to the U.S. Supreme Court in *Bleistein v. Donaldson Lithographing Co.* Writing for the Court, Justice Holmes declined to distinguish between works of art and "pictorial illustrations" used for commercial purposes.

Commentators on the AWCPA have consistently found it necessary to analyze how a court would distinguish between what is architecture and what is not, and each has returned to Rep. Kastenmeier's proposed two-step test. While these commentators' evaluations of the test range from uncritical acceptance to dismissal as an unhelpful restatement of the unworkable separability doctrine, the test itself may be irrelevant. The first court to apply the AWCPA to architectural design read the statutory definition of architectural work literally and, following in Justice Holmes's footsteps, made no distinction between architecture and a mere building.

II. CONCEPTUAL PROBLEMS IN APPLYING COPYRIGHT LAW TO ARCHITECTURAL DESIGN

The AWCPA injects copyright law's narrowly focused values into the architectural design process. The copyright model was developed to protect works where the cost of producing a copy is minimal in

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69. 188 U.S. 239 (1903) (holding that advertising illustrations are protectable by copyright).
70. Id. at 251-52.
72. See supra note 58 and accompanying text.
73. Turner, supra note 71, at 241.
74. Scholl, supra note 71, at 813-14.
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comparison to the author's creative investment. The cost of a "copy" of an architectural design, by contrast, greatly exceeds the architect's own investment. This greater cost is indicative of the many interests directly affected by architectural design, including those of developers, building owners, builders, consultants, governmental bodies, building users, and the non-user public. The copyright model does not adequately account for these interests.

A. Architectural Design Is a Professional Service

The American Institute of Architects has argued since its founding in 1857 that architects sell a service, not a product. Architectural design, broadly construed, consists of all of the services provided by architects as professionals. These services are provided, most directly, to developers. While a developer generally brings to a project's design process programmatic requirements, a site, a budget, and (indirectly) a construction technology, the architect contributes in varying degrees to defining or selecting these elements. In fact, many architects would consider such involvement to be an integral part of an effective design

77. Compare architectural works to other protected subject matter: literary works, musical works, dramatic works, choreography, pictorial and graphic works, sculpture, motion pictures, and sound recordings. See 17 U.S.C. § 102(a) (1994).

78. In this Comment, "developer" is used to refer to the person or entity which is responsible for creating the architectural project and which owns the building upon its creation. "Building owner" refers to the person or entity which owns the project during its useful life. An architect generally will hire consultants to do the structural, mechanical, and electrical design. Other consultants often include civil engineers, landscape architects, interior designers, food service consultants, and graphic designers. For a description of the participants in the construction process, see Justin Sweet, Legal Aspects of Architecture, Engineering and the Construction Process §§ 8.02–03 (5th ed. 1994).


80. In this Comment, the term "profession" is used in its narrower sociological meaning: an organized body of experts who apply esoteric knowledge to particular cases; who have formal entry prerequisites, including elaborate systems of instruction and training; and who possess and enforce a code of ethics. See Andrew Abbott, The System of Professions: An Essay on the Division of Expert Labor 4 (1988).

81. The program describes the activities to be housed, the particular requirements of each activity, and the developer's other project goals. See Alexander, supra note 1, at 84.

82. See Sweet, supra note 78, § 8.07.

83. See id. § 12.02.

84. Available construction technologies are determined by the date the developer chooses to create the project, the location of the project, and the project's budget.
process. The elements are interdependent; none can be satisfactorily considered in isolation.

The architect's central task, however, is to find a coherent physical form that accommodates all of the developer's requirements. Toward this end, the architect manipulates the variables, such as how a particular site might be most effectively utilized or how various programmatic activities might be spatially related. This manipulation continues while the architect applies alternative concepts of physical form until an effective match is found. Within this context, the fact that an existing physical form is selected as the architectural solution is generally insignificant. Unless the developer's programmatic goals include uniqueness of design, the use (to any degree) of a previously existing design that satisfies the project requirements is a successful solution, and the architect has rendered a valuable professional service to the developer.

In addition to providing purely architectural services, the architect generally retains one or more consultants who provide services in related design specialties. In copyright terminology, consultants are typically "independent contractors," with their own rights to the work they produce. Because the "author" of a copyrightable architectural work need not be a state-licensed architect, a consultant's contributions to a design also may create rights in the undivided work as a joint author.

Under the AWCPA, building owners have no rights in the design of their own buildings unless the architect has assigned the copyright to them. The House hearing addressed the fear that any restrictions on building owners' rights to alter their physical property would severely disrupt the architect-developer relationship. As a result, exceptions were included in the AWCPA to allow building owners to alter or demolish their buildings without the copyright owner's consent. The

85. See Alexander, supra note 1, at 84 (describing the program as the "analytical phase" of the design process).
86. See id. at 15-16, 84 (describing this derivation of form as the "synthetic phase").
87. See supra note 78.
92. See AWCPA Hearing, supra note 45, at 16-17 (noting that many types of building uses require growth and change).
93. One section of the AWCPA provides:
need for such exceptions betrays the poor fit between the traditional copyright model and the real-world relationships in the architectural design process.

Legal commentators frequently have argued that copyright for architectural design is necessary to encourage creativity. This assertion is unsupported by credible evidence and is contradicted by the internationally prominent role that the United States has played in architectural innovation for more than 100 years. Architectural creativity results from a variety of factors other than the promise of copyright protection, including the demands of particular projects. But even if copyright actually facilitated creativity, that result alone should not be the ultimate legislative goal. Instead, the aim should be to provide the best possible design solutions to developers and therefore to society. By placing restrictions on what designs architects can utilize, architects’ duties are made more difficult to perform. The best solutions may not be utilized.

Justification for copyright in architectural design also may confuse protection of the rights of the architect, as author, with protection of the rights of other parties involved in the design process. Often, justification relies on the interest of developers or building owners in creating or owning identifiably unique structures. Building owners have other forms of protection, however, where similarity of design has been
recognized to be detrimental. The control of design to confer benefits directly on parties other than the architect is inconsistent with the copyright law model.

Architects may have a theoretical interest in being able to protect original designs from copying, but their rewards depend on, and come only secondhand through, developers who may be able to exploit the originality. Whether architects can effectively reap those rewards under the AWCPA is questioned in part III.

B. Architectural Design Is Part of the Public Environment

The public is free to choose whether and when to enjoy most types of creative works which are controlled by copyright. Architecture, by contrast, is largely a public art which indiscriminately imposes itself on its surroundings and the public once it has been constructed. Not surprisingly, more than one body of law has evolved to regulate this environmental aspect of architectural works.

As urbanization has increased, legal restrictions which affect architectural design, such as zoning, have become more pervasive. Typically these restrictions are locally crafted to respond to community desires. They emphasize community over individuality. They also attempt to ensure that a design is appropriate for its site, to the mutual benefit of the developer and the public. These regulations tend to encourage similarity of design within neighborhoods.

Copyright law, by contrast, values originality and distinctiveness above all other qualities. It provides no other impetus toward aesthetic merit or other qualities which contribute to a positive human environment. Copyright applied to architectural design discourages these other qualities because it ignores them at the same time that it rewards

99. See Copyright Office Report, supra note 2, at 63–69 (describing federal protection under design patents and the Lanham Act, 15 U.S.C. §§ 1051–1127 (1994), and state protection under trademark, trade dress, contract, tortious interference with contractual relations, conversion, unjust enrichment, misappropriation, and unfair competition). While these protections may be insufficient to satisfy developers' or building owners' interests, it does not follow that copyright law is the appropriate mechanism to protect those interests.


101. See infra text accompanying notes 162–65.


103. Id. at 388.

104. See 17 U.S.C. § 102(a) (1994) (requiring only that works of authorship in the listed categories be fixed in a tangible medium of expression and be "original"); § 106 (granting copyright owner the exclusive rights in "derivative works," thereby discouraging similarity).
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distinctiveness. Copyright law does not have the same pernicious effect on other subject matter because no other subject matter has a public nature that approaches that of architectural design.

Much of our culture's most cherished architectural heritage is the result of copying. For instance, many of our state capitols are self-consciously derived from the U.S. Capitol. 105 Consider, as well, the single-steepled New England church form which has been repeated innumerable times. 106 These examples are all in the public domain and therefore unprotected by copyright because they were constructed prior to Dec. 1, 1990. The effect of the AWCPA, however, is to discourage any similar culture-building in the future.

Architectural design at its best results from careful attention to the unique nature of individual sites and the communities in which they are located. Architects speak in poetic terms about buildings that grow out of their site. 107 Frank Lloyd Wright emphasized that good architectural design does not exist independent of its site. 108 The AWCPA, however, takes no notice of the site-specific nature of architectural design. By making no reference to the relationship of a design to its surroundings, it creates the false presumption that sites are fungible—that buildings are commodities that can be arbitrarily located on any site. The AWCPA places value on an architectural design completely divorced from the design's context. It therefore creates an inappropriate incentive in the architectural design process for the copyright owner to reuse designs on sites for which they were not created.

C. Architecture Is a Useful Article

Copyright protects the expression of ideas, not the practical use of ideas. 109 This limitation traditionally has barred copyright protection for works that are merely utilitarian. Although the 1976 Act adopted the separability test to qualify the design of some otherwise useful articles for copyright, 110 its application has been unsatisfactory. 111

106. See id. at 68-75, 322 (describing evolution of this architectural form through replication).
108. See, e.g., Frank Lloyd Wright, An Autobiography 192 (1977) ("[N]o house should ever be on a hill or on anything. It should be of the hill. Belonging to it.").
110. See supra text accompanying notes 16-19.
No one questions that virtually all architectural works have useful aspects. The AWCPA raises the issue of which building designs have expressive features that qualify them as copyrightable "architectural works." This determination is no easier to make in the field of building design than it is in the design of other types of useful articles such as mannequins or bicycle racks. This difficulty traditionally had been recognized, as the Register of Copyrights expressed in a 1961 report:

In the case of architecture particularly, it would often be difficult to differentiate between the functional and the "artistic" features of a design. While we are inclined to the view that a limited measure of protection should be afforded to the designs of functional structures, we do not believe that the copyright statute provides the appropriate framework for their protection.

Functional elements in architectural design include, at a minimum, structural members, spatial volumes, circulation, mechanical and electrical systems, and construction methods. In a very real sense, function also includes such qualities as building identity, clarity of form, views, natural light, accessibility, and life safety.

Distinguishing architectural design from unprotectable building design by the presence of non-functional expressive features is, as has been suggested elsewhere, merely a restatement of the separability

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doctrine\textsuperscript{117} and apparently rests on the idea that what is functional is not expressive. In the middle of the twentieth century, however, a substantial portion of the architectural profession set about to use the functional requirements of a building as the words in a new aesthetic language. What was being expressed—often in an exaggerated way—was function.

This trend can be illustrated by buildings usually described as "International Style."\textsuperscript{118} Mies van der Rohe was a prominent architect whose work embodies that aesthetic.\textsuperscript{119} His work also exemplifies the contradictions inherent in attempting to separate the functional from the expressive. At the same time, it is cited as an example of fine architecture worthy of copyright protection,\textsuperscript{120} even though it has been the archetype for much of the modern steel and glass architecture toward which the public professes considerable dislike. The following description of one of his buildings shows how expression and function may be misunderstood outside the architectural profession.

Mies van der Rohe designed Crown Hall, a one-story building which houses the architecture school at the Illinois Institute of Technology in Chicago.\textsuperscript{121} The most notable features of Crown Hall are four immense steel girders\textsuperscript{122} which are exposed above the roof and which enable the entire main floor to be column-free. The casual observer would probably perceive these girders to be functional, which they are. And there can be no doubt but that the architect intended just that response.

Although the girders do support the roof, however, closer analysis reveals that their design is not determined purely by functional considerations at all. First, from a structural point of view, the girders are inefficient because they are laterally supported along their length at their lower edges, not at their upper edges.\textsuperscript{123} Second, locating the girders outside the insulating "skin" of the building subjects them to temperature changes which cause significant expansion and contraction.\textsuperscript{124} Third,
exposing the girders to view necessitates that they be painted or otherwise given a finished appearance, requiring both increased initial cost and increased maintenance over the life of the building.

These girders were designed for an appearance of functionality that supersedes the reality of their functionality. The architect created an architectural expression that celebrates the functionality of the building's structure. Whether a lay observer or a court would perceive the aesthetic expression is doubtful.

Another problem of interpretation may be shown by the Citicorp Center, completed in 1977 in mid-town Manhattan.125 This office tower is made distinctive by its sloping top, which appears to be a prime candidate for a protectable non-functional expressive feature. However, the design originated to enable the installation of solar panels.126 The angle of the slope was governed by the angle of the sun at New York City's latitude. But, because solar panels were ultimately determined to be impractical, they were never installed.127 Is the design functional or expressive?

In fact, architects select forms that solve as many problems simultaneously as possible. An elegant solution satisfies both practical problems and aesthetic problems jointly. Although distinctions may be made between functional and aesthetic problems in architectural design, no such distinction is meaningful when considering solutions. And it is the solutions that copyright law regulates by protecting architectural works as a subject matter.

III. PRACTICAL PROBLEMS IN APPLYING COPYRIGHT LAW TO ARCHITECTURAL DESIGN

Courts will have difficulty interpreting the AWCPA to define what works are protectable and to apply the statutory exceptions and infringement standards. This part discusses these problems from the architectural profession's point of view.

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126. Id. at 172.
127. Id.
A. The Scope of Protected Subject Matter Is Uncertain

Architects are unable to agree among themselves whether the design of particular buildings are "architectural works."\(^{128}\) The AWCPA nevertheless requires courts to make this determination. Faced with this task, courts must decide whether artistic content is a requirement. Rep. Kastenmeier expressly intended that only works with an artistic quality be protected,\(^{129}\) and the House Report also suggests, but does not specifically state, this view.\(^{130}\)

Judicial inquiry into artistic content is undependable at best. The House Report offers only that "[t]he extent of protection is to be made on an ad hoc basis."\(^{131}\) Nevertheless, architects must rely on judicial interpretation of the AWCPA both for protection and to avoid infringement. Their rights and liabilities rest on inherently unpredictable lay opinions of their professional work.

Moreover, one should expect infringement cases to be contested on the fringes of architecture, rather than where architectural qualities are obvious. In its 1989 report on architectural copyright, the Copyright Office was unable to cite a single U.S. case where infringement of copyright had been claimed in what the Copyright Office considered "fine architecture."\(^{132}\) While justification for architectural copyright usually is given by resorting to the most conspicuous examples of design by well-known architects,\(^{133}\) the most common infringement suits instead are likely to involve designs for buildings such as tract houses, strip shopping centers, and storage sheds.

Courts faced with categorizing these works have been given so much latitude by the AWCPA’s language that any prediction on the result in most cases can be nothing more than speculation. Courts may, in fact, completely avoid the task of distinguishing "architecture" from "mere buildings." They may read the statutory definition of "architectural

\(^{128}\) See Geoffrey Broadbent, Design in Architecture x–xi (1973); Hitchcock & Johnson, supra note 21, at 78–80.


\(^{130}\) See supra note 58 and accompanying text.


\(^{132}\) Copyright Office Report, supra note 2, at 14. Most infringement suits historically have involved single-family housing. Id. at 12.

work" literally and require no artistic content at all as a prerequisite to copyright protection.\textsuperscript{134}

In the first reported case to apply the AWCPA to architectural design, the court made this expansive interpretation.\textsuperscript{135} In \textit{Richmond Homes Management, Inc. v. Raintree, Inc.}, the court awarded damages for infringement of the copyright in both the drawings and the design of tract housing.\textsuperscript{136} The court applied the same minimum constitutional standard of originality to the design that it applied to the drawings: independent creation and a "minimal degree of creativity."\textsuperscript{137} The court explained that "protection extends to the most mundane, functional products of modern commercial architecture so long as the minimal originality requirement of copyright law is met."\textsuperscript{138} The court made no mention of the AWCPA's legislative history and its higher standard.\textsuperscript{139}

The \textit{Richmond Homes} opinion goes beyond what the drafters of the AWCPA had envisioned. It is, nevertheless, a reasonable interpretation of the plain language of the statute and is consistent with the interpretation of other categories of protected subject matter. The opinion is also consistent with the AWCPA's purpose of complying with the Berne Convention. Because the Berne member countries overwhelmingly do not require artistic content,\textsuperscript{140} it could be argued that it is appropriate to interpret U.S. law similarly. In addition, the approach of \textit{Richmond Homes} avoids a court becoming entangled in the distinction between architecture and a mere building. Under \textit{Richmond Homes}, the only statutory interpretation that remains regarding scope of the subject matter is whether the work is the design of a "building." This issue is easier to resolve than the architecture/building distinction;\textsuperscript{141} at least architects may feel greater confidence in knowing whether their work will be classified as a "building."

\begin{itemize}
\item \textsuperscript{134} See 17 U.S.C. § 101 (1994), supra note 66.
\item \textsuperscript{136} 862 F. Supp. at 1530.
\item \textsuperscript{137} Id. at 1523 (quoting Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991)).
\item \textsuperscript{138} Id. at 1525.
\item \textsuperscript{139} See supra notes 57--58, 129--30 and accompanying text.
\item \textsuperscript{140} See supra note 112.
\item \textsuperscript{141} See Scholl, supra note 71, at 815--16.
\end{itemize}
These factors will likely result in similar holdings in the future. Therefore, depending on the breadth of future judicial interpretation, architects should be advised that copying of any original, post-1990 building design may be actionable, irrespective of its architectural quality. At the same time, because other courts may not follow the Richmond Homes approach, architects should not rely on protection for their own utilitarian designs. Congress should reduce architects’ risk of liability for infringement by amending the AWCPA to exclude from protection designs without artistic or aesthetic expression. Until that happens, courts should follow the AWCPA’s legislative history to reach the same result.

B. Statutory Exceptions Add Further Uncertainty to the Scope of Protection

If copyright protection for any subject matter is to be effective, it must prevent infringement or provide a meaningful remedy when infringement occurs. The AWCPA makes exceptions to protection of architectural works, however, because of the poor fit between the traditional copyright model and the nature of architectural design.

One exception allows “pictorial representations” to be made and distributed if the building is publicly visible. The statute does not define “pictorial representation.” It is unclear whether drawings fall within this exception and whether publication of drawings of copyrighted architectural works is therefore an infringement.

All realistic drawings of physical objects can be thought of as a form of drawing which architects know as a “section.” A section is a planar slice through or near the depicted object that shows everything that one would see from that plane looking in one direction. Sections can be taken in either vertical or horizontal planes. A section taken horizontally through a building (at about four feet above a particular floor level) is a “floor plan.” A horizontal section taken above a building creates a “roof

142. The AWCPA provides:
PICTORIAL REPRESENTATIONS PERMITTED.—The copyright in an architectural work that has been constructed does not include the right to prevent the making, distributing, or public display of pictures, paintings, photographs, or other pictorial representations of the work, if the building in which the work is embodied is located in or ordinarily visible from a public place.


plan.” A vertical section taken from the outside of a building or other object is called an “elevation.”

Courts faced with an infringement claim for any form of drawing of an architectural work will need to determine how far the pictorial representation exception extends. Photographs and “pictures” are specifically excepted. Perspective elevations, which portray depth, also presumably would be excepted because they are so similar to photographs. Because there is no relevant distinction between perspective elevations and “flat” elevations, which do not portray depth, the latter also presumably would be excepted. Will a court distinguish between exterior elevations and interior elevations or sections? One also could argue that a roof plan fits within the pictorial representation exception as well as an exterior elevation does. If that is so, will a court distinguish between roof plans and floor plans? How these questions are answered could depend on whether the interior of the building is publicly accessible, even though the copyright owner may have no control over that access. These uncertainties make it impossible to know whether the AWCPA provides protection against publication of drawings of copyrighted architectural designs.

The AWCPA also grants to building owners the right to alter or destroy their buildings without the consent of either the “author” or the copyright owner. What is unclear, though, is the extent to which this exception will conflict with the copyright in the design and drawings. Does a building owner’s right of alteration include the right to make drawings of the existing building (either from existing plans or from the building itself) that otherwise would infringe on the copyright? Perhaps courts will conclude that building ownership automatically creates an implied license to make such drawings. But does a building owner’s right of alteration include the right to build an addition that copies the design of the original?

C. Uncertain Infringement Standards Create Unknown Liability for Architects and Building Owners

Whether an addition that copies the design of the original building would infringe on the copyright in that design may be less clear than it first appears. Consider an office tower designed by an architect who

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146. See 17 U.S.C. § 120(a), supra note 142.
148. See Meikle v. Maufe, [1941] 3 All E.R. 144 (Ch.) (finding infringement of architect’s copyright when building owner constructed addition that repeated original design).
Copyright Protection for Architectural Design

retains the copyright in the design and drawings. If the building’s owner decides to double its size by constructing a matching attached addition and hires another architect for the project, intuition suggests that this activity falls within the alteration exception. On the other hand, if the same owner decides to construct an identical separate building on the same site, that project would clearly be a copyright infringement. The mere fact that the new construction is or is not attached to the original building does not provide sufficient justification for this result.

Consider the result if the original building were an office tower built over a parking garage, where the parking structure had a greater floor area than the tower and was designed to support additional office space to be constructed in the future. If the two office towers themselves are separated, are they still part of the same building? Perhaps the result depends on whether they share a mechanical system or electrical system. If so, an architect’s rights might hinge on decidedly non-architectural considerations.

The AWCPA makes architects the most likely infringers of copyright in architectural works. An architectural education includes the observation and analysis of thousands of building designs. This information gathering is essential to build a mental library of forms and images with which to solve design problems. This learning process continues throughout an architect’s career. As a result, architects may not know the sources of their design ideas; they are focused instead on a successful and aesthetic solution to the problem at hand.

Infringement is not excused if the copying is unconscious, however. Because the AWCPA protects individual elements of design, architects are now subject to liability for copyright infringement if they do not prevent their memories of other architects’ designs from reappearing in their own work. Judge Learned Hand’s warning now applies to architects: “With so many sources before them they might quite honestly forget what they took; nobody knows the origin of his inventions; memory and fancy merge even in adults. Yet unconscious plagiarism is actionable quite as much as deliberate.”

149. See supra text accompanying note 86.


151. See 17 U.S.C. § 101 (1994), supra note 66 (defining “architectural work” to include “elements in the design” and excluding only “individual standard features”) (emphasis added).

Both the public nature of buildings and the widespread publication of architectural designs create a great degree of access by potential infringers. Because a plaintiff may therefore more easily prove access circumstantially, the degree of similarity needed to establish that copying took place is lessened. Architectural design always has developed through borrowing. Now a very modest degree of borrowing may constitute actionable infringement.

D. Architects Must Protect Themselves by Altering Their Relationships with Employees, Consultants, and Developers

1. Architect-Employee Relationships

Architects generally own the copyright to their employees' work. At the same time, architects are liable for copyright infringement by their employees. Employees must be informed of the restrictions that the AWCPA places on the sources for their design work, and architectural firms should institute procedures to monitor the work produced for improper borrowing. For instance, a firm might require its designers to list the known sources of the design ideas used in each project, and the firm could then make independent in-house reviews for infringement.

2. Architect-Consultant Relationships

An architect's consultants own the copyright in drawings and designs they produce unless assigned to another party. The AWCPA may, in addition, vest in a consultant an interest in the copyright in an entire architectural work as a joint author. Architects should therefore be

153. See Amstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946) (holding that evidence of access reduces degree of similarity that must be shown to support finding that copying took place).

154. The copyright statute provides:
In the case of a work made for hire, the employer or other person for whom the work was prepared is considered the author for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them, owns all of the rights comprised in the copyright.
17 U.S.C. § 201(b) (1994). A “work made for hire” is “a work prepared by an employee within the scope of his or her employment.” § 101.


156. See supra note 88 and accompanying text.

advised to obtain any such rights their consultants may have. Architects should also take steps to ensure that their consultants do not contribute infringing work. For instance, a firm might require its consultants to follow the same procedures that the firm uses with its own employees.

3. *Architect-Developer Relationships*

While the alteration exception partially avoids one architect-developer conflict created by copyright in architectural design, developers will want to insulate themselves from other liability created by the AWCPA. Because architects are the persons who would typically produce a copyright infringement and can best prevent it from occurring, developers will want indemnification from their architects. An architect could, conversely, seek indemnification from a developer, but the developer has no incentive to assume a risk which is primarily under the architect's control.

Commentators who have urged copyright protection for architectural design have presumed that architects would derive an economic benefit from being vested with the copyright. But architects sell their services primarily based on an hourly valuation of their time. Their hourly rates must be in line with industry norms. Only if architects are able to resell prior designs without substantial revisions will they be able to profit from copyright ownership. Within the segment of the construction industry where repetitive design is typically used, sophisticated developers and building owners will wisely demand that the copyright be

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158. The rights an architect can obtain will be limited, however, by the consultant's unassignable right of termination. See 17 U.S.C. § 203 (1994) (giving author reversionary right regardless of prior agreement).

159. See *supra* notes 92–93, 147–48 and accompanying text.


161. See Sapers, *supra* note 71, at 16 (recommending that developers exact a covenant from their architects warranting that their designs do not infringe a copyright).

162. See American Institute of Architects, AIA Document B141: Standard Form of Agreement Between Owner and Architect, arts. 10–11 (14th ed. 1987), reprinted in *Sweet*, *supra* note 78, at app. A. Even when the contract describes a stipulated sum or a percentage of construction cost, architects typically base their fee proposals on a projection of professional staff hours to be expended.

transferred in the architect's contract for services.\textsuperscript{164} Thus, architects are not as likely to benefit financially from copyright protection of their designs as is assumed by supporters of the AWCPA.

Although their work may be aesthetically pleasing, architects primarily provide a service, rather than create art.\textsuperscript{165} Developers in the market for a professional service usually can choose among alternative suppliers. Only in rare instances can an architect demand a fee that is beyond the normal range of hourly rates, even if the contemplated design is intended for repetitive use. Architects will therefore receive few financial benefits from their newly gained copyright protection.

Architects will, however, bear the brunt of successful infringement claims and spend time and money defending against unsuccessful claims. As with other forms of liability, a portion may be paid through insurance. All of the costs nevertheless are paid out of the collective revenues of the architectural profession.

IV. CONCLUSION

The Architectural Works Copyright Protection Act of 1990 extended copyright protection to architectural design. Congress acted in response to U.S. obligations under the Berne Convention, not in response to requests of the architectural profession. The AWCPA inappropriately applies traditional copyright doctrine to architectural design and, in doing so, disregards architectural design's unique character as a professional service and as a part of our public environment.

The narrow goals of copyright law conflict with the established practices and laws governing these aspects of architecture. The architecture-specific exceptions included in the AWCPA are insufficient to fully ameliorate these conflicts. Because of the overriding importance of adhering to Berne standards in order to secure international copyright protection for other subject matter, however, repeal of the AWCPA is unrealistic. The AWCPA thus creates a new source of liability for architects, who are the most likely infringers. Therefore, architects should alter their relationships with developers, consultants, and employees in order to protect themselves.

Furthermore, courts likely will interpret the scope of protected architectural works to include all building design, even though Congress

\begin{footnotes}
\item[165] See \textit{supra} text accompanying notes 79--86.
\end{footnotes}
expressed its desire to distinguish between architecture and mere buildings. Because the broader interpretation will increase the extent of architects’ liability, the architectural profession would be better served by revising the statutory definition of "architectural works" to exclude designs without artistic or aesthetic expression. While determining the presence of such expression in a given design is unavoidably imperfect, a limitation on the scope of protected subject matter would decrease architects’ liability under the AWCPA.