

ARTICLE

FUNCTIONAL COMPILATIONS

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ABSTRACT

At some level, every human-made creation is a compilation. Yet, most of them do not qualify for copyright protection because the selection and arrangement of their component parts is inherent in the functional purpose for which they were designed. The Supreme Court's decision in *Feist Publications, Inc. v. Rural Telephone Service Co.* established that works of authorship must be "original" to qualify for copyright protection and that originality requires a "modicum" of creativity. However, the Court did not say how much or what kind of creativity would satisfy this standard.

In the years since *Feist*, courts have sometimes rejected compilation copyright claims because the compilation was too functional to be protectable. Sometimes they have relied upon copyright's exclusions of methods and systems to say that a systematic or methodical selection and/or arrangement of information is uncopyrightable. Other times, they have invoked the merger doctrine, as when the selection and/or arrangement was dictated by functionality. Still other decisions have ruled that functional selections or arrangements lack the originality necessary to qualify for copyright protections. This Article intends to unify the functional compilation case law by pointing out that regardless of

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the doctrinal hooks or linguistic characterization courts use, it is the functionality of these compilations that limits copyright.

Functionality as a general basis for disqualifying some compilations from copyrights has not been widely recognized in the case law and law review literature. Some judges and commentators reject the idea that functionality is ever a limit on copyright (except maybe as to pictorial, graphic, and sculptural works whose expressive elements cannot be separated from functional elements). This Article demonstrates that functionality does and should limit the protectability of compilations. It gives examples of four types of functionality that courts have identified in the compilation case law: mechanically derived compilations, compilations dictated by function, systematic or methodical compilations, and compilations whose selection and arrangement were constrained by external factors or efficiency.

Copyright aims to protect not originality per se, but expressive originality. Some compilations satisfy the expressive originality standard, but others do not. Since *Feist* forbids granting copyright protection based on a sweat-of-the-brow rationale, functional compilations would seem to lie largely outside the bounds of copyright protection. Even if protectable, the scope of copyright protection in functional compilations is and should be quite thin, requiring proof of exact or near-exact copying.

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I. INTRODUCTION

At some level, every human-made creation is a compilation of one kind or another insofar as it is the product of human acts of selection and arrangement of component elements.¹ A garden, for instance, can be conceived of as a compilation of plants.² A

1. I am not the first person to have observed that almost everything is a compilation. See Jeffrey Malkan, *Rule-Based Expression in Copyright Law*, 57 BUFF. L. REV. 433, 475 n.153 (2009). The U.S. Copyright Office issued a policy statement giving a narrow interpretation to the copyrightability of compilations to exclude those involving creative selection and arrangement of uncopyrightable protectable subject matters, such as yoga poses. See Registration of Claims to Copyright, 77 Fed. Reg. 37,605, 37,605–607 (June 22, 2012). See *infra* Part II.B for further discussion of what does and does not constitute a copyrightable compilation.

2. See *Kelley v. Chi. Park Dist.*, 635 F.3d 290, 304 (7th Cir. 2011) (garden design was not copyright subject matter). Although Kelley considered his “Wildflower Works” to be a work of art, not a compilation, it might also have been claimed as a compilation because creating a garden typically requires human acts of selection and arrangement of

yoga routine may be a compilation of poses and breathing exercises.³ A dress is a compilation of fabric and fasteners.⁴ A lawnmower is a compilation of hardware parts.⁵ A drug is a compilation of active ingredients and other components through which drug delivery is accomplished.⁶ A sandwich is a compilation of bread, fillings, and condiments.⁷ The layout of a suburban housing development is a compilation of buildings, streets, and other infrastructures.⁸

It may take a “modicum” of creativity to bring the overwhelming majority of such artifacts and processes into being.⁹ However, no serious student of intellectual property law in the United States would assert that any of these creations should be considered copyrightable compilations.¹⁰ The principal reason why

plants. Under the Copyright Office Policy Statement, these acts do not result in a copyrightable compilation. See Registration of Claims to Copyright, 77 Fed. Reg. at 37,607. The Copyright Office explained as much in denying copyright registration in a DNA sequence. See Letter from Robert J. Kasunic, Associate Register of Copyrights, to Mr. Simon (Feb. 11, 2014) (explaining that a DNA sequence fails to qualify under §§ 102(a) and (b) and lacks sufficient copyrightable authorship) (on file with the author). Elsewhere I have explored at considerable length what is and should be protectable subject matters under U.S. copyright law. See Pamela Samuelson, *Evolving Conceptions of Copyright Subject Matter*, 78 U. PITT. L. REV. (forthcoming 2016).

3. See *Bikram’s Yoga Coll. of India, L.P. v. Evolution Yoga, LLC*, 803 F.3d 1032, 1042–43 (9th Cir. 2015) (holding sequence of yoga poses and breathing exercises not to be copyright subject matter, either as a choreographic work or as a compilation).

4. See *Nat’l Cloak & Suit Co. v. Standard Mail Order Co.*, 191 F. 528, 528 (C.C.S.D.N.Y. 1911) (finding no infringement where dresses copied from plaintiff’s drawings were made and sold).

5. See *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1212–14 (8th Cir. 1986) (rejecting claim of copyright in lawnmower parts and numbers that would have impeded competition in the market for replacement parts).

6. See *SmithKline Beecham Consumer Healthcare, L.P. v. Watson Pharm.*, 211 F.3d 21, 29 n.5 (2d Cir. 2000) (recognizing danger that claim of copyright in wording on label would confer monopoly over sale of drugs).

7. See *Lorenzana v. S. Am. Rests. Corp.*, 799 F.3d 31, 34 (1st Cir. 2015) (holding chicken sandwich not copyright subject matter).

8. See *McIntosh v. N. Cal. Universal Enters. Co.*, 670 F. Supp. 2d 1069, 1096 (E.D. Cal. 2009) (seemingly extending copyright protection to the layout of lots in a subdivision). *McIntosh* is criticized in the Nimmer treatise. See 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.03[B][3][c] (Matthew Bender rev. ed. 2016) (“Copyright laws are designed to vindicate particular expressive choices, not to dictate construction results.”).

9. “Modicum of creativity” has become a term of art for creativity-based conceptions of copyright’s originality standard in the aftermath of the Supreme Court’s decision in *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 346 (1990). This Article uses the term sparingly because it is vacuous.

10. But see STAFF MEMBERS OF N.Y. UNIV. LAW REVIEW UNDER THE GUIDANCE OF WALTER J. DERENBERG, STUDY NO. 3: THE MEANING OF “WRITINGS” IN THE COPYRIGHT CLAUSE OF THE CONSTITUTION (1956), in COPYRIGHT LAW REVISION: STUDIES PREPARED FOR THE SUBCOMM. ON PATENTS, TRADEMARKS & COPYRIGHTS OF THE COMM. ON THE JUDICIARY, 86TH CONG., STUDIES 1–4, at 106 (Comm. Print 1960) (describing the exclusion of dress designs copied from drawings as “indefensible today”). Congress has considered extending copyright-like protection to fashion designs, but has not enacted such legislation. See, e.g., S. 3523, 112th Cong. (2012).

these creations are not copyrightable is that they are too functional to qualify for copyright protection.¹¹ Some, though not all, of these creations may be eligible for utility patent protection as inventions in the useful arts,¹² although patents are only available if their creators have applied for and satisfied patent law standards.¹³ No matter how many alternative ways there might be to select and arrange their component parts, these types of compilations lie outside the bounds of U.S. copyright law.¹⁴

Some compilations are, of course, protectable by copyright law, as the Supreme Court held in its landmark decision in *Feist Publications, Inc. v. Rural Telephone Service Co.*¹⁵ *Feist* established that compilations must be “original” to qualify for copyright protection, and that originality requires a compilation’s author to have contributed a modest amount of creativity in selection and arrangement of the compilation’s elements.¹⁶ The Court did not, however, say what kind of creativity, nor how much creativity, is required to satisfy this standard. However, it found the alphabetical order and standard format of the white pages listings of Rural’s telephone directory to be insufficiently

11. See *infra* Part II discussing the role of functionality in copyright law.

12. Yoga poses are unlikely to be proper subject matter for either utility or design patents. Dress designs may be proper subject matter for design patents, but are unlikely subject matters for utility patents. Drug combinations, by contrast, would be protectable subject matter for utility patents, but are unlikely to be eligible for design patents or trade dress protections. The Copyright Office rejected a copyright application in a DNA sequence, partly in recognition that synthetic DNA sequences are patent-eligible subject matter. See Letter from Robert J. Kasunic, Associate Register of Copyrights, to Mr. Simon, *supra* note 2.

13. 35 U.S.C. §§ 101–103 (2012).

14. See *supra* notes 1–8 and accompanying text.

15. 499 U.S. 340, 348 (1991). There is considerable commentary and case law concerning copyright in factual compilations. See, e.g., Miriam Bitton, *Protection for Informational Works After Feist Publications, Inc. v. Rural Telephone Service Co.*, 21 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 614–15 (2011); Robert C. Denicola, *Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516, 527–28 (1981); Alan L. Durham, *Speaking of the World: Fact, Opinion, and the Originality Standard of Copyright*, 33 ARIZ. ST. L.J. 791, 810–11 (2001); Jane C. Ginsburg, *Creation and Commercial Value: Copyright Protection of Works of Information*, 90 COLUM. L. REV. 1865, 1893–96 (1990); Jane C. Ginsburg, *No “Sweat”? Copyright and Other Protection of Works of Information After Feist v. Rural Telephone*, 92 COLUM. L. REV. 338, 342–44 (1992); Robert A. Gorman, *Fact or Fancy? The Implications for Copyright*, 29 J. COPYRIGHT SOC’Y U.S.A. 560, 562–63 (1982).

16. *Feist*, 499 U.S. at 346. The Court cited approvingly to L. Ray Patterson & Craig Joyce, *Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations*, 36 UCLA L. REV. 719, 763 & n.155 (1989), in support of its ruling on the originality requirement. In the EU, functional compilations of data may be protectable under the *sui generis* form of legal protection accorded to databases. See, e.g., P. Bernt Hugenholtz, *Implementing the European Database Directive*, in INTELLECTUAL PROPERTY AND INFORMATION LAW, ESSAYS IN HONOR OF HERMAN COHEN JEHOAM 183, 185–89 (Jan J.C. Kabel & Gerard J.H.M. Mom eds., 1998).

creative.¹⁷ In the years since *Feist* (and to some extent before *Feist*), courts have sometimes rejected compilation copyright claims because the compilations were too functional to be protectable.¹⁸

Part II considers cases in which courts have relied upon functionality as a reason to deny or limit copyrightability of compilations. In some cases, the courts deemed the compilations at issue to be functional because they resulted from a mechanical process.¹⁹ In other cases, the courts found the compilations to be “dictated by” the function to be performed.²⁰ Courts in still other cases decided that the compilations were unprotectable because of their methodical or systematic character.²¹ Finally, courts sometimes mentioned efficiency and external factors as limiting the copyrightability of compilations.²² Courts have used various doctrinal hooks to explain their rulings, including merger of expression and idea, fact, or function, the exclusion of methods and systems, and lack of originality, among others. What underlies all of these cases is a principle that the functionality of a compilation in relation to its task or purpose does and should limit the protectability of compilations. Part III considers factors that may make compilations expressive as well as original. It also considers some controversial functional compilation cases and subsequent litigations that tried, but failed, to build on the pro-copyright analyses in those cases. Part IV concludes.

II. COPYRIGHT LIMITS ON FUNCTIONAL COMPILATIONS

Copyright law has a long history in the United States of extending protection to expressive works, but little or none to functional works. As Section A explains, functionality disqualifies many pictorial, graphic, and sculptural works from

17. *Feist*, 499 U.S. at 361–63.

18. The most relevant literature on functional compilations includes Dana Beldiman, *Utilitarian Information Works—Is Originality the Proper Lens?*, 14 MARQUETTE INTELL. PROP. L. REV. 1, 15–23 (2010); Malkan, *supra* note 1, at 475 n.153; Lloyd L. Weinreb, *Copyright for Functional Expression*, 111 HARV. L. REV. 1149, 1176–78 (1998). *See also* 1 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 2.15 (3d ed. Supp. 2016).

19. *See infra* Part II.D.1.; *see, e.g.*, *Continental Micro, Inc. v. HPC, Inc.*, 1997 WL 309028 at *3–5 (N.D. Ill. 1997) (finding that compilation of data on shape and depths of keys was not copyrightable).

20. *See infra* Part II.D.2.; *see, e.g.*, *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 157 (S.D.N.Y. 1980).

21. *See infra* Part II.D.3.; *see, e.g.*, *Coates-Freeman Assoc. v. Polaroid Corp.*, 792 F. Supp. 2d 879, 884–85 (D. Mass. 1992) (ordering of elements in a chart on leadership styles was unprotectable because part of a useful method).

22. *See infra* Part II.D.4.; *see, e.g.*, *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 105 (2d Cir. 2014) (efficiency as limit on scope of copyright protection for architectural works as well as computer programs).

copyright protection. Congress decided to protect architectural works and computer programs as copyright subject matter, notwithstanding the functionality which they typically embody.²³ Functionality affects the scope of protection in these works, although generally not their qualifications for copyright protection.²⁴ Although the main focus of this Part is on the copyrightability of functional compilations, Section B explores some questions and issues that have arisen about what is and isn't a compilation under U.S. copyright law. Section C explains the variety of doctrinal hooks that courts have used when deciding that compilations are unprotectable by copyright law. Section D then reviews numerous cases that illustrate four different ways courts have characterized the functionality of compilations that have limited copyright claims in them.

A. *Some General Observations About Functionality and Copyright Protection*

The statutory exclusion of functional compilations from copyright protection is starkly clear insofar as they fall within the category of pictorial, graphic, and sculptural (PGS) works.²⁵ The designs of such things as bicycle racks and temperature recording charts, which often involve the selection and arrangement of component parts, are disqualified from copyright protection in the United States insofar as these useful articles lack separable expressive elements.²⁶ The existence of more than

23. See Pub. L. No. 96-517, § 10, 94 Stat. 3015, 3028 (codified at 17 U.S.C. §§ 101, 117 (1980)). For a further discussion of the role of functionality in software and architectural work cases, see Pamela Samuelson, *Functionality and Expression in Computer Programs: Refining the Tests for Software Copyright Infringement*, 31 BERKELEY TECH. L.J. (forthcoming 2016). Courts in software copyright cases frequently emphasize creativity in selection and arrangement as a basis for considering program elements as original enough to satisfy copyright standards. See, e.g., *Softel, Inc. v. Dragon Med. & Sci. Commc'ns*, 118 F.3d 955, 963–67 (2d Cir. 1997) (holding that while individual elements in software may be unprotectable, a creative selection and arrangement may render a compilation of these elements protectable under copyright law). Whether (or to what extent) a compilation analysis is appropriate in software cases is beyond the scope of this Article, but because computer programs are, by their nature, industrial compilations of applied know-how, it is questionable whether compilation analysis is appropriate in these cases. See, e.g., Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2326–29 (1994).

24. See *infra* note 34 and accompanying text.

25. 17 U.S.C. § 101 (2012) (defining “pictorial, graphic, and sculptural works” and “useful article”).

26. See, e.g., *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142, 1146–47 (2d Cir. 1987) (bicycle rack unprotectable); *Esquire, Inc. v. Ringer*, 591 F.2d 796, 803–04 (D.C. Cir. 1978) (outdoor light fixture unprotectable); *Taylor Instrument Cos. v. Fawley-Brost Co.*, 139 F.2d 98, 100 (7th Cir. 1943) (temperature recording chart held unprotectable). See generally 1 GOLDSTEIN, *supra* note 18, § 2.5.3; U.S. COPYRIGHT OFFICE, FL-103, USEFUL ARTICLES (2013), <http://www.copyright.gov/fls/fl103.pdf> [<https://perma.cc/C57R-RCC7>].

one way to design such works and of a modest amount of creativity in the selection and/or arrangement of elements does not matter.²⁷ The integration of form and function may make these works attractive in their relevant product markets. However, these creations are ineligible for copyright protection in the United States.²⁸ Unless protected by other intellectual property rights, such as a design or utility patent or as trade dress, these types of compilations are in the public domain. This exclusion of such functional compilations has been a bedrock principle of U.S. copyright law for well over a century.²⁹ This rule is supplemented by another long-standing complementary rule that the scope of copyright in a protected work, such as a drawing, that depicts a useful article, such as a bicycle rack, does not extend to the design of the useful article depicted therein.³⁰

Whether functionality is or should be a limit on the copyrightability of compilations or other types of works, apart from the PGS category, is a contested proposition. Some commentators believe that functionality is either never a limit on copyrightability,³¹ or at least never a limit on copyrightability except as to PGS works lacking in separable expressive elements.³²

Despite the general rule that copyright law does not protect functionality, there are two exceptions of functional creations whose

27. See H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 54–55 (1976) (“[Congress] is seeking to draw as clear a line as possible between copyrightable works of applied art and uncopyrighted works of industrial design. . . . [E]ven if the appearance of an article is determined by esthetic (as opposed to functional) considerations, only elements, if any, which can be identified separately from the useful article as such are copyrightable.”).

28. *Id.*

29. See, e.g., *Baker v. Selden*, 101 U.S. 99, 101–04 (1879); Pamela Samuelson, *The Story of Baker v. Selden: Sharpening the Distinction Between Authorship and Invention*, in *INTELLECTUAL PROPERTY STORIES* 159, 180–92 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006) [hereinafter Samuelson, *Baker Story*] (discussing copyright doctrines implicating functionality that are often credited to *Baker*). There is, however, considerable disagreement among courts over the proper test to determine whether the functional elements of a PGS work are conceptually separable from the expressive elements. The Supreme Court granted certiorari to resolve this question in *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 483 (6th Cir. 2015), *cert. granted*, 136 S. Ct. 1823 (2016).

30. 17 U.S.C. § 113(b); see, e.g., *Niemi v. Am. Axle Mfg. & Holding Inc.*, No. 05-74210, 2006 WL 2077590, at *3–4 (E.D. Mich. July 24, 2006) (holding unauthorized manufacture of machine depicted in copyrighted technical drawing did not infringe that copyright).

31. See NAT’L COMM’N ON NEW TECH. USES OF COPYRIGHTED WORKS, FINAL REPORT ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 10, 19–21 (1979) [hereinafter CONTU Report] (asserting that utility does not limit copyrightability). This assertion is demonstrably untrue. See *supra* note 18 and accompanying text.

32. See *Am. Dental Ass’n v. Delta Dental Plans Ass’n*, 39 U.S.P.Q.2d (BNA) 1714, 1721, 1727 (N.D. Ill. 1996) (holding compilation of dental procedures too useful to be copyrightable), *rev’d*, 126 F.3d 977, 978, 980 (7th Cir. 1997) (giving examples of seemingly useful creations that copyright protects and indicating that functionality only limits copyright in PGS works).

design requires creative selection and arrangement, namely, architecture and computer software, that are unquestionably copyright-protectable even though their expressive and functional elements may be intermixed.³³ Functionality does not, generally speaking, disqualify these works from copyright protection, although it typically limits the scope of that protection.³⁴

B. *What Is and Is Not a Compilation?*

Before delving into what makes a compilation too functional to be protectable, it is best to define what is and is not a compilation under U.S. copyright law. The Copyright Act of 1976 (1976 Act) defines “compilation” as “a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.”³⁵ That definition also indicates that “collective works” are compilations, a term defined in the singular as “a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole.”³⁶

At first glance, this would seem to be a straightforward matter. And in most cases it is: as long as there is some creativity in selection and/or arrangement of data or other materials, the work will be a copyrightable compilation.³⁷ Yet courts sometimes differ in their conceptions of whether a particular work (or part of a work) is or is not a compilation.³⁸ Sometimes plaintiffs claim a

33. 17 U.S.C. § 101 (defining “computer program” and “literary works”); § 102(a)(1)–(8) (stating that copyright subject matter includes “literary works” and “architectural works”).

34. *See, e.g.*, *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 106 (2d Cir. 2014) (asserting that functionality limits the scope of copyright in architectural works); *Computer Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693, 707–10 (2d Cir. 1992) (asserting that functionality limits the scope of copyright in computer programs).

35. 17 U.S.C. § 101 (defining “compilation”). Some works, of course, may be composite compilations and expressive works. A travel guide, for instance, may contain a considerable amount of factual data, such as the locations and operating hours of museums, restaurants, and shops. A competing guide could conceivably infringe compilation elements of the copyright of an earlier guide if the competitor copied exactly the same selection and arrangement of data from the first guide. Yet, much of the contents of travel guides consists of narrative descriptions about the history of a region or city and proposed routes through city streets and the like. Copying the narrative could infringe the literary work embodied in the guide but not the compilation elements.

36. 17 U.S.C. § 101 (defining “collective work”).

37. *See, e.g.*, *Key Publ’ns, Inc. v. Chinatown Today Publ’g Enters., Inc.*, 945 F.2d 509, 512–14 (2d Cir. 1991) (holding copyrightable a classified directory of information about businesses likely to be of interest to Chinese-Americans in New York).

38. *See, e.g.*, *Am. Dental Ass’n v. Delta Dental Plans Ass’n*, 39 U.S.P.Q.2d (BNA)

work is a compilation as a backup theory when seeking to protect their work from copyists.³⁹ Sometimes courts use compilation analysis in cases that do not involve compilations.⁴⁰

Conventionally expressive works and compilations can be distinguished by considering the categories of original works of authorship that the 1976 Act recognizes and reflecting on those categories in relation to the definition of “compilation.”⁴¹ Section 102(a)(1), for example, identifies literary works as one of the eight categories of copyrightable works. Although a short story is the product of its author’s creative selection and arrangements of words, it is best understood as a literary work, not as a compilation. Section 102(a)(2) states that musical works are copyright subject matter. Although a song obviously consists of an arrangement of musical notes and themes in a certain order, it is not a compilation, but rather an expressive musical work. Section 102(a)(4) allows copyright to subsist in choreographic works. Although creating a dance involves selection and arrangement of steps and other movements, it is not a compilation.

Why does it matter whether a work is a compilation or one of the eight categories of statutorily recognized copyrightable works? The main reason that copyright claimants generally prefer for their works to be characterized as falling within one of the eight statutory categories is because expressive works generally enjoy a broader scope of copyright protection than compilations.⁴² Compilations are often said, including by the Supreme Court in *Feist*, to have only a “thin” scope of protection.⁴³ The only creativity compilation copyright owners can claim is in the selection and arrangement of the data or preexisting materials.⁴⁴ Arguments that similarities in the “look

1714, 1723–24 (N.D. Ill. 1996), *rev'd*, 126 F.3d 977, 980 (7th Cir. 1997) (treating ADA’s names and numbers as a compilation at the trial-court level, but as a taxonomy, not a compilation, on appeal). The *ADA* case is discussed *infra* Part III.B.1.

39. *See, e.g.*, *Bibbero Sys., Inc. v. Colwell Sys., Inc.*, 893 F.2d 1104, 1108 n.3 (9th Cir. 1990) (rejecting *Bibbero*’s backup theory that its uncopyrightable blank form was a protectable compilation). *Bibbero* is discussed *infra* notes 156–64 and accompanying text.

40. Courts often treat conventional types of works as compilations, especially when focusing on whether there is at least a modest amount of creative selection and arrangement. *See, e.g.*, *Intervest Constr., Inc. v. Canterbury Estate Homes, Inc.*, 554 F.3d 914, 919–21 (11th Cir. 2008) (floor plan of house analyzed as a compilation); *Boisson v. Baniar, Ltd.*, 273 F.3d 262, 273 (2d Cir. 2001) (quilt featuring letters of the alphabet and various other elements analyzed as a compilation); *see also* Malkan, *supra* note 1, at 436 n.12 (citing other such cases).

41. 17 U.S.C. § 102(a) (listing eight categories of copyrightable works); § 101 (defining “compilation”).

42. *See Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (examining the scope of copyright protection for compilations).

43. *Id.*

44. 17 U.S.C. § 103(b) (“The copyright in a compilation . . . extends only to the

and feel” of a second-comer’s compilation should give rise to copyright liability are likely to fail,⁴⁵ whereas with expressive works, look-and-feel claims often succeed.⁴⁶

There are, then, significant disincentives to call one’s work a compilation if it can be characterized as one of the statutory categories of expressive works. Only when desperation sets in would a copyright claimant seek to characterize its work as a compilation when its assertion that the work falls within a conventional category does not persuade the judges reviewing it.⁴⁷ But when it comes to functional compilations, there is generally no other category into which the claimed work might reasonably be understood to fall.⁴⁸

C. Doctrinal Bases for Treating Functionality as a Limit on Copyright in Compilations

Functionality as a limitation on copyright protection for compilations has found expression in the case law under three principal doctrinal rubrics. The most common is the exclusion of methods and systems embodied in § 102(b) of the 1976 Act, 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, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”⁴⁹ Some cases reject claims of copyright in compilations because of the systematic or otherwise functional nature of the selection and/or arrangement of elements.

material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material.”).

45. See, e.g., *Cooling Sys. & Flexibles, Inc. v. Stuart Radiator, Inc.*, 777 F.2d 485, 491–93 (9th Cir. 1985) (characterizing plaintiff’s substantial similarity claims as to radiator catalogs as “frivolous”).

46. See, e.g., *Roth Greeting Cards v. United Card Co.*, 429 F.2d 1106, 1110–11 (9th Cir. 1990) (look and feel of greeting cards); *Sid & Marty Krofft Television Prods, Inc. v. McDonalds Corp.*, 562 F.2d 1157, 1167 (9th Cir. 1977) (look and feel of fanciful characters for television programs and ads).

47. See, e.g., *Bikram’s Yoga Coll. of India, L.P. v. Evolution Yoga, LLC*, 803 F.3d 1032, 1041–43 (rejecting claim that a yoga sequence was a copyrightable compilation as well as a claim that the sequence was a copyrightable choreographic work).

48. See 17 U.S.C. § 102(a) (listing categories eligible for copyright protection).

49. 17 U.S.C. § 102(b). For a discussion of the evolution of this rule and the legislative history of this provision, see generally Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921, 1944–46 (2007) [hereinafter Samuelson, *Why Copyright Excludes Systems and Processes*].

A second rubric is the merger doctrine, which holds that when, as a practical matter, there are only a small number of ways to express an idea or function, the idea or function is said to be “merged” with the expression.⁵⁰ To be true to the principle that copyright protection does not extend to ideas or functions, that merged expression is regarded as unprotectable by copyright law.⁵¹ Some compilation copyrights have been rejected on merger grounds.⁵²

A third rubric for excluding functional compilations from copyright protection has been the originality requirement for copyright protection.⁵³ Sometimes courts view the functionality of a compilation as evidence that it lacks sufficient originality to be copyright-protectable.⁵⁴

Courts frequently rely on more than one of these doctrines in functional compilation cases. On occasion, they invoke other doctrines as well, such as the unprotectability of facts, *scènes à faire*, blank forms, and words and short phrases.⁵⁵ Fair use has come to the rescue in some functional compilation cases as well.⁵⁶ Regardless of the doctrinal basis courts use for rejecting copyright in compilations, functionality shines through as a key limiting principle.

50. See, e.g., *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 678–79 (1st Cir. 1967). See generally Pamela Samuelson, *Reconceptualizing Copyright’s Merger Doctrine*, 63 J. COPYRIGHT SOC’Y U.S.A. (forthcoming 2016) [hereinafter Samuelson, *Reconceptualizing Merger*].

51. The unprotectability of ideas and functions derives from 17 U.S.C. § 102(b), which, in turn, evolved out of the Supreme Court’s decision in *Baker v. Selden*, 101 U.S. 99 (1879). See 17 U.S.C. § 102(b); *Baker v. Selden*, 101 U.S. 99, 103 (1879) (deciding that copyrighting a book only secures the exclusive right of printing and publishing, not a patent for the substance within it). Cases that recognize the potential for merger of function and expression are discussed in Samuelson, *Reconceptualizing Merger*, *supra* note 50, at 21–25.

52. See *infra* notes 83, 101–02, 216, 249, 295, 303 and accompanying text.

53. The originality requirement is codified at 17 U.S.C. § 102(a). See Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 499, 354–60 (explaining the legislative history of this section). If courts adopted Professor Fisher’s proposal for a more rigorous originality standard, lack of originality would do a lot more work in rendering functional compilations unprotectable by copyright law. See generally William W. Fisher III, *Recalibrating Originality*, 54 HOUS. L. REV. 437 (2016).

54. See *infra* notes 58–59, 82, 98, 196, 214, 249 and accompanying text.

55. See *infra* notes 76–77, 86–89, 104, 112, 133–34, 156–65, 181, 195–99, 213–14, 295, 302 and accompanying text.

56. See, e.g., *Dow Jones & Co. v. Bd. of Trade of Chi.*, 546 F. Supp. 113, 119–22 (S.D.N.Y. 1982) (concluding that Board of Trade had likely made fair use of Dow’s stock market listings); *N.Y. Times Co. v. Roxbury Data Interface*, 434 F. Supp. 217, 226–27 (D.N.J. 1977) (finding defendant’s index to the N.Y. Times indices to be fair use).

D. Judicial Categorization of Functional Compilations

What makes a compilation “functional”?⁵⁷ Courts often use the word “functional” in characterizing compilations as such. Sometimes they offer some explanation for what makes the compilation functional. Sometimes they invoke synonyms for functionality: the Supreme Court’s *Feist* decision, for example, recognized functionality as a disqualifier from copyright when saying that “mechanical” selections and/or arrangements lack originality.⁵⁸ By identifying “mechanical” contributions as not satisfying copyright’s originality standard, the Court accepted that functionality does sometimes limit the copyrightability of certain kinds of contributions to compilations. It is thus not just routine selections and/or arrangements that fail to satisfy the originality standard; mechanical selections and arrangements are also unoriginal. While the Court did not give much attention to functionality as a limit on copyright protection for compilations, its reference to mechanical selections and arrangements as uncopyrightable shows that the Court implicitly accepted that mechanical creativity is not the kind that supports a grant of copyright protection.⁵⁹ Some cases, discussed below, illustrate this disqualifier from copyright.⁶⁰

There are, however, some non-mechanical functionalities that may either disqualify a work from protection or narrow its scope of protection. The case law and other commentary offer several ways to think about functionality as a limitation on

57. Here are some synonyms for “functional” (in no particular order): utilitarian, practical, purposeful, serviceable, performative, directive, operative, industrial, standard, technical, technological, workable, useful, logical, engineered, systematic, methodical, dictated by, efficient, constrained by external factors, rule-based, rule-constrained, task-specific, task-driven, instructional, objective, and unimaginative. One reason that courts may have been unreceptive to copyright claims in functional compilation cases may be the disjuncture between the symbolic author that justifies the grant of copyright, as Professor Balganesch explains, and the low level of creativity exhibited in most of the functional compilation cases. See Shyamkrishna Balganesch, *The Folklore and Symbolism of Authorship in American Copyright Law*, 54 HOUS. L. REV. 403, 410–412 (2016).

58. *Feist*, 499 U.S. at 362.

59. There may, of course, be some (or even a lot of) creativity in the development of a mechanical process. Millions of patents have issued for inventive mechanical processes. *Table of Issue Years and Patent Numbers for Selected Document Types Issued Since 1836*, USPTO, <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/issuyear.htm> [<https://perma.cc/5A4F-65F2?type=image>]. The creativity of mechanical process inventions does not, however, make a compilation produced by such processes into a copyrightable work.

60. Strictly speaking, the word “mechanical” means “of or relating to machinery”; also “done as if by machine: seemingly uninfluenced by the mind or emotions: automatic.” *Mechanical*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/mechanical> [<https://perma.cc/HK6L-ZBSS>]. While a compilation of numbers produced by the operation of a random number generating computer program might fall within this definition, the Court seems not to have been using the term in this way, but more in the sense of methodical or systematic.

copyright protection or scope. Several cases, for instance, say that the compilation plaintiffs sought to protect was “dictated by” the function it was intended to serve.⁶¹ The Supreme Court’s *Baker v. Selden* decision tells us that methods and systems in the useful arts are unprotectable by copyright law.⁶² In the aftermath of *Baker*, courts have held that methodical and systematic selections and arrangements do not qualify for copyright protection.⁶³ When certain words must be used in a legal document in order to conform to the precise language that will achieve the desired legal effect, some courts and commentators have considered this a functionality-based limitation.⁶⁴ Several courts have considered efficiency as a kind of functionality that limits copyright protection.⁶⁵ Safety and efficacy considerations on drug labels are functionality-based limits on copyright protection.⁶⁶ Industry standards and external factor constraints also bear on the functionality of some compilations.⁶⁷ Some cases

61. See, e.g., *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 157 (S.D.N.Y. 1980). *Decorative* is discussed *infra* notes 104–08 and accompanying text.

62. 101 U.S. 99, 103 (1879). *Baker* is discussed *infra* notes 115–40 and accompanying text.

63. See, e.g., *Coates-Freeman Assocs. v. Polaroid Corp.*, 792 F. Supp. 2d 879, 884–85 (D. Mass. 1992) (holding that the ordering of elements in a chart on leadership styles was unprotectable because part of a useful method); see also Beldiman, *supra* note 18, at 27–30 (explaining functionality of utilitarian works, such as taxonomies, mathematical formulae, and the periodic table of chemical elements, in terms of the search for the most effective expression, which is typically functionally constrained and emphasizing the importance of industry standards to facilitate communication); Stephen Preonas, *Mergercide, When Good Copyrights Go Bad: A Recommendation for a Market-Based, Defendant-Centric Approach to the Merger Doctrine in the Context of Compilations*, 11 INTELL. PROP. BULL. 89, 96–99 (2006) (proposing a trademark-like standard for testing when functionality should limit copyright protection, focusing on whether the challenged part of a work is essential to the use or purpose of it, whether it affects the cost or quality of the work, or whether not being able to use that part would put competitors at a significant disadvantage).

64. See, e.g., *R.W. Beck, Inc. v. E3 Consulting, LLC*, 577 F.3d 1133, 1144–45 (10th Cir. 2009) (recognizing that specific language disclaiming liability in a contract may be functional); *Crume v. Pac. Mut. Life Ins. Co.*, 140 F.2d 182, 184 (7th Cir. 1944) (discussing how the use of a method allowing an insolvent insurance company to reorganize “can be effected solely by the employment of words descriptive thereof. . . where the use can be effected only in such manner, there can be no infringement”); see also Shubha Ghosh, *Legal Code and the Need for a Broader Functionality Doctrine in Copyright Law*, 50 J. COPYRIGHT SOC’Y U.S.A. 71, 83 (2003).

65. See, e.g., *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 105 (2d Cir. 2014) (discussing efficiency as a limit on scope of copyright protection for architectural works); *ATC Distribution Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 709 (6th Cir. 2005); see also Beldiman, *supra* note 18, at 22 (presenting efficiency as indication that the “requisite individuality” of an author’s expression “should be absent”).

66. *SmithKline Beecham Consumer Healthcare, L.P. v. Watson Pharm., Inc.*, 211 F.3d 21, 26–29 (2d Cir. 2000).

67. See, e.g., *Matthew Bender & Co. v. West Publ’g Co.*, 158 F.3d 674, 682–83 (2d Cir. 1998) (setting forth a test for creativity in selection and arrangement of informational works, saying it was “a function of (i) the total number of options available, (ii) external factors that limit the viability of certain options and render others non-creative, and

involving instructions for use of non-copyrightable products satisfy the general definition of “functional” as “designed to have a practical use” such as enabling purchasers to assemble or use those products.⁶⁸

The remainder of this section discusses the functional compilation cases and clusters them by the explanations the courts gave for considering the compilations to be functional. Subsection 1 discusses mechanically derived compilations. Subsection 2 reviews several “dictated by function” cases. Subsection 3 considers various cases involving methodical and systematic compilations. Subsection 4 identifies efficiency and external-factor constraints as functionality-based limitations on compilations. As will become clear, and as Subsection 5 sums up, a wide variety of functional compilations exist.⁶⁹ It is questionable how distinct the categories of functionality discussed in this section really are. But the cases do set forth some explanations about why the compilations at issue were either unprotectable by copyright law or enjoyed such a narrow scope of protection that only exact or near-exact copying would infringe. Taking the courts at their word at least helps sharpen the functionality problem that underlies them all.

1. *Mechanically Derived Compilations.* Perhaps the most functionally constrained types of compilations are those that are closest to being products of mechanical processes. A striking example of a mechanically derived compilation of information was *Continental Micro, Inc. v. HPC, Inc.*⁷⁰ The plaintiff claimed copyright in its compilation of space and depth data about the shapes of keys.⁷¹ In support of its claim of infringement,

(iii) prior uses that render certain selections ‘garden variety’); see also Bitton, *supra* note 15, at 628 (stating that the copyright status of a compilation is “dynamic rather than static” because over time a fact work can become an industry standard and lose protection).

68. *Functional*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/functional> [<https://perma.cc/YU7V-Z4M9>]; see, e.g., *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 157–58; see also Beldiman, *supra* note 18, at 37 (“[A] utilitarian work must predictably achieve its functionality, in accordance with pre-set objective criteria, every time, for every user, and under every circumstance.”).

69. Commentators have given additional examples of functional compilations. See, e.g., Beldiman, *supra* note 18, at 2–6 (discussing utilitarian information works); Weinreb, *supra* note 18, at 1197–98, 1201–02 (stating that “most compilations are for a particular use, which dictates both the selection and arrangement,” and then providing examples of functional works).

70. No. 95 C 3829, 1997 WL 309028 (N.D. Ill. June 4, 1997). Continental had to use measuring technologies in order to create this compilation. *Id.* at *1; see also *RBC Nice Bearings, Inc. v. Peer Bearing Co.*, 676 F. Supp. 2d 9, 23 (D. Conn. 2009) (denying copyright claim in part because “the numbers resulting from the adjustment of load rating calculations [about dimensions of ball bearings] are merely mechanical derivations and are not eligible for copyright protection”).

71. *Continental Micro*, 1997 WL 309028, at *1.

Continental relied upon the Second Circuit's decision in *CCC Information Services v. Maclean Hunter Market Reports*.⁷² In *CCC*, the court upheld the copyrightability of a compilation of used car valuations because the compilers had exercised professional skill and judgment in setting valuations for various makes and ages of cars in different regions of the United States.⁷³ The Second Circuit decided that the skill and judgment exercised by Maclean Hunter's staff had infused the valuations with sufficient originality to satisfy copyright standards.⁷⁴ Continental contended that its compilation of space and depth data required comparable personal and professional skill and judgment.⁷⁵

The court rejected Continental's claim on two grounds. The first was that the space and depth data were unprotectable "facts" under *Feist*.⁷⁶ Continental's employees had compiled this data through a process that was "fundamentally one of measuring preexisting facts."⁷⁷ It did not matter that other firms that might measure the same keys might arrive at somewhat different numbers. "A measurement is still a measurement, even if it cannot be made with absolute precision."⁷⁸ To uphold Continental's claim would run afoul of *Feist*'s rejection of "sweat-of-the-brow" or "industrious compilation" as a basis for copyright protection.⁷⁹

A second ground for rejecting Continental's claim was that even if the space and depth data were not "facts" within the meaning of *Feist*, the compilation was unprotectable under § 102(b).⁸⁰ The court likened Continental's compilation of data to the recipes that the Seventh Circuit had ruled were unprotectable procedures under § 102(b) in *Publications International, Ltd. v. Meredith Corp.*⁸¹ The space and depth data,

72. See *id.* at *1–2 (citing *CCC Info. Servs. v. McLean Hunter Mkt. Reports, Inc.*, 44 F.3d 61 (2d Cir. 1994)).

73. *CCC*, 44 F.3d at 67.

74. *Id.* at 72 (stating that *CCC* appropriated "approximative statements of opinion" by copying used car valuations).

75. *Continental Micro*, 1997 WL 309028, at *2. Continental also emphasized the difficulty of compiling this data. *Id.* at *1. This was, of course, a "sweat-of-the-brow" argument, which the Court rejected in *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 359–60 (1990).

76. *Continental Micro*, 1997 WL 309028, at *1.

77. *Id.*

78. *Id.*

79. *Id.* at *2. The court also distinguished *CCC* as having been "heavily infused with the author's subjective judgments about the importance of various market factors." *Id.*

80. *Id.* at *1.

81. *Id.* at *1–2 (citing *Publ'ns Int'l Ltd. v. Meredith Corp.*, 88 F.3d 473, 481 (7th Cir. 1996)).

like the list of ingredients in *Meredith*, “are clearly dictated by functional considerations, and therefore may be said to lack the required element of originality.”⁸² The court further invoked the merger doctrine because Continental’s “depth and space data state the exact settings for locksmiths to use in cutting keys with the 1200cm machine.”⁸³ Changing the numbers would presumably result in “a less perfect key.”⁸⁴ To rule in favor of Continental’s claim would “convert copyright into something more akin to patent law.”⁸⁵

Even less creative than Continental’s key measurements were the facts from daily bond cards at stake in *Financial Information, Inc. v. Moody’s Investors Service, Inc.*⁸⁶ Financial provided a service to subscribers by supplying them with daily bond cards, which consisted of packets of index cards on which it had printed information about municipal bonds whose issuers had elected to redeem the bonds that day.⁸⁷ This information was useful to persons interested in trading in municipal bonds because when issuers decide to redeem the bonds, they stop paying interest.⁸⁸ Financial’s staff gathered facts about the bond redemptions by looking at newspaper “tombstone” ads that included basic facts about the bonds, from which the staff prepared the bond cards for that day’s set.⁸⁹ Financial had about

82. *Id.* at *1 (quoting 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.18, at 2-204.25 to .26 (1996)).

83. *Id.* at *2. The data “tells locksmiths exactly how to set their machines to cut accurate keys.” *Id.*

84. *Id.*

85. *Id.* The court noted that “plaintiff received significant protection for his work during the lifetime of the 1200cm machine patent.” *Id.* at *2 n.3. Yet, the court decided that HPC’s motion for summary judgment should be denied as to Continental’s claim that HPC had copied its “selection of keys and the numbering system [Continental] used for organizing their key cards,” suggesting that both the selection of keys and the numbering system might be protectable. *Id.* at *3. For explanations about why the numbering system should not have supported Continental’s copyright claims, see *infra* notes 293–95 and accompanying text. Because keys are not themselves copyright subject matter, a selection of them is probably not copyrightable under the Copyright Office Policy Statement. See Registration of Claims to Copyright, 77 Fed. Reg. 37,605, 37,607 (June 22, 2012).

86. 808 F.2d 204, 205–06 (2d Cir. 1986). Strictly speaking, the daily bond card data were not mechanically derived in the sense of being produced by a machine. *Id.* at 206. Under today’s technology, however, they might well have been compiled by computer programs through data mining techniques. See also *Tastefully Simple, Inc. v. Two Sisters Gourmet, LLC*, 134 F. App’x 1, 4 (6th Cir. 2005) (showing that a compilation of data about state tax departments and rates was held unprotectable by copyright law); *Windgate Software, L.L.C. v. Minn. Computs., Inc.*, 504 F. Supp. 2d 582, 588–89 (D. Minn. 2007) (denying a preliminary injunction because the information about IBM parts that the defendant copied from the plaintiff was information that the plaintiff had copied directly from IBM about those parts).

87. *Financial*, 808 F.2d at 205.

88. *Id.*

89. *Id.* at 206. The facts Financial’s staff collected for the daily bond cards were:

500 subscribers to its daily bond service for an annual fee of \$279.⁹⁰ The trial court characterized the collection of the data and preparation of the bond cards as “a simple clerical task.”⁹¹ Moody’s may have copied considerable quantities of data from Financial’s bond cards, but because the compilation was unprotectable by copyright law, there was no infringement.⁹²

2. *Dictated-by-Function Compilations.* Also significantly constrained by functionality are those compilations that courts have decided were dictated by the nature of the task they were designed to achieve. A good example of a dictated-by-function compilation was *Victor Lalli Enterprises, Inc. v. Big Red Apple, Inc.*⁹³ Both Lalli and Big Red published charts of horse-racing results on a regular basis to inform readers who relied on this information in preparing to make gambling bets.⁹⁴ After Big Red exactly copied Lalli’s “Brooklyn Handle” and “3-5-7 Old Way” charts, Lalli sued for infringement.⁹⁵ The court described how the chart was prepared:

The Brooklyn Handle chart derives its daily number from the total sum of money bet each day on all of the horse races at the New York flat-racing track in operation. Local newspapers reporting on track activities publish this sum total daily. Publishers of the Brooklyn Handle take the last three digits of this daily sum total and publish it as the lucky number for the day. The 3-5-7 Old Way chart is also derived from published statistics on racetrack winnings at the New York flat-racing track in operation. Its results, however, require simple addition. First, the compiler of the 3-5-7 Old Way chart must add together the amounts paid by the track on two dollar bets to win, place and show for each of the first seven races of the day. The last digit of the total of such sums paid out by the track in the first three races forms the first digit of the lucky

“the name of the issuer and a description of the bond (e.g. water, sewage, etc.); the redemption date; the redemption agent; the identification of the specific bonds being called, and the redemption price.” *Id.* The tombstone ads sometimes contained additional information that Financial’s staff did not copy. *Id.* Sometimes Financial’s staff called the issuer to confirm some facts. *Id.* Today, these data might easily be “scraped” by software programs from websites publishing the “tombstone” ads.

90. *Id.* at 205.

91. *Id.* at 206. The Second Circuit did not use the word “mechanical” to describe Financial’s preparation of its compilation of bond data, but its description of the process as a “simple, repetitive task by rote,” *id.*, supports my characterization of *Financial* as a mechanical compilation case.

92. *Id.* at 208.

93. 936 F.2d 671, 672 (2d Cir. 1991).

94. *Id.*

95. *Id.* at 673.

number; the last digit of the total paid out by the track in the first five races forms the second digit of the lucky number; the final digit of the lucky number is the last digit of the total for all seven races.⁹⁶

The Second Circuit decided that Lalli's compilation of information was unprotectable because the data were arranged "according to 'purely functional grids that offer no opportunity for variation.'"⁹⁷ The functionality of the grids meant, in the court's view, that the compilation lacked sufficient originality to be protectable by copyright law.⁹⁸

Feist can be viewed as another example of a compilation of information that might have failed to qualify for copyright protection because the selection and arrangement of data in Rural's telephone directory were dictated by the function that white pages listings was designed to perform. A condition of Rural's being granted a monopoly franchise to provide telephone service in its sector of Kansas was its willingness to publish a directory of the names, addresses, and telephone numbers of its subscribers.⁹⁹ This requirement meant that the selection of names to include in the directory was dictated by the principal function the directory was intended to serve.¹⁰⁰

Although the Supreme Court emphasized that the white pages listings of Rural's telephone directory lacked originality because it was "entirely typical" for compilations of that kind, this format would almost certainly have been too functional to be protectable by copyright law, even if Rural had been the first company to arrange a telephone directory in that manner.¹⁰¹

96. *Id.* at 672–73. The charts also contained historical data about the last 13 months of daily winning numbers because bettors relied on them to pick "lucky numbers." *Id.* at 672. Because of the calculations performed, Lalli's compilation might also have been described as mechanically derived, but that was not the wording the court used. The calculations Lalli did to arrive at a daily number to put in the chart are fairly described as functional in nature. *Id.* at 673.

97. *Id.*; see also *Southco, Inc. v. Kanebridge Corp.*, 390 F.3d 276, 282, 285 (3d Cir. 2004) (holding that the names and numbers of hardware parts were unprotectable by copyright because they were "dictated by rules" and "dictated by logic").

98. *Lalli*, 936 F.2d at 673. Although the lower court decided the *Lalli* case before the Supreme Court's *Feist* decision, the Second Circuit decided that it had applied the proper originality standard in denying Lalli's claim. *Id.* at 673–74.

99. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 399 U.S. 340, 341 (1991).

100. See *id.*

101. *Id.* at 362. The word "typical" is a misnomer in this context. The word means normal for a person, thing, or group, or a representative of a particular specimen or category. The term assumes the existence of other persons, things, or groups with which, as atypical instances, the typical might be contrasted. In the case of white pages listings of telephone directories, the selection and arrangement Rural used wasn't "typical," but rather a well-accepted standard.

Consider this: The purpose or task of the white pages part of a telephone directory is to maximize the utility of a list of names and numbers to enable people to efficiently find the telephone numbers for which they were searching. To accomplish this objective, the information must be arranged in a certain way.¹⁰² The most logical arrangement to achieve the findability purpose of a telephone directory white pages was to list, first, in alphabetical order, the last name of an individual subscriber, followed by a first name (or the name of a firm), along with the relevant street address, and then the telephone number assigned to that person or firm. Users of such a directory would generally know who they were trying to contact, so it was logical for names to come first. Putting the last name before the first name makes more sense to enable successful searches than alphabetizing by first names.¹⁰³ Also logical was listing the address before the telephone number to enable directory users to resolve ambiguities among listings for those persons having the same names. There might, for instance, be three John Thomas listings in a directory, but a directory's user might know the street address or neighborhood in which the relevant John Thomas lived and thereby avoid calling the wrong person(s). Listing all of the telephone numbers in a column to the right of the names and addresses also facilitated usability of the directory.

Decorative Aides Corp. v. Staple Sewing Aides Corp. is one of several cases in which functionality was the basis for rejecting claims of copyright infringement based on similarities in instructions about how to use uncopyrightable products.¹⁰⁴

102. The necessity of this arrangement might also have been relevant to a merger defense.

103. *Feist*, 399 U.S. at 363 (“[Arranging names alphabetically] is an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course.”).

104. 497 F. Supp. 154, 157 (S.D.N.Y. 1980), *aff'd*, 657 F.2d 262 (2d Cir. 1981); *see, e.g.*, *Ophthalmic Research Assoc., Inc. v. Sarcode Corp.*, No. 12-11371-RWZ, 2013 WL 2247584, at *2 (D. Mass. 2013) (allowing exact copying of instructions for eye drop procedure because instructions were uncopyrightable owing to functional considerations); *Nat'l Nonwovens, Inc. v. Consumer Prods. Enters., Inc.*, 397 F. Supp. 2d 245, 256 (D. Mass. 2005) (finding instructions for boiling felt wood unprotectable by copyright law because “purely functional”); *Portionpac Chem. Corp. v. Sanitech Sys.*, 217 F. Supp. 2d 1238, 1247–49 (M.D. Fla. 2002) (granting summary judgment to defendant as to washing instructions, checklists, and charts to be unprotectable on merger and blank form grounds, although denying motion as to cartoon illustrating sanitation methods); *Sinai v. Calif. Bureau of Automotive Repair*, 25 U.S.P.Q.2d 1809, 1811–12 (N.D. Cal. 1992) (holding that a manual and chart concerning Corvette emissions system was uncopyrightable due to lack of originality and merger); *see also Publ'ns Int'l, Ltd. v. Meredith Corp.*, 88 F.3d 473, 481 (7th Cir. 1996) (relying on Nimmer treatise for the proposition that recipes are uncopyrightable because generally dictated by functional considerations); *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 678–79 (1st Cir. 1967) (holding instructions for entering sweepstakes contest to be unprotectable by copyright law despite the existence of alternative ways to express this idea). *But see* C.B. Fleet Co.

Decorative and Staple were both in the business of selling drapery headers whose packaging included instructions and diagrams that explained and demonstrated how to use the headers to make draperies with pleats.¹⁰⁵ The court perceived Staple's instructions and diagrams to be substantially similar to Decorative's, but said that this similarity "cannot be the basis of an infringement charge here, however, for it is dictated by functional considerations."¹⁰⁶ The court thought that awarding Decorative the relief it was requesting "would result, in effect, in protecting the device itself."¹⁰⁷ Because Staple's instructions were not "slavish copies," there was no infringement.¹⁰⁸

Gennie Shifter, LLC v. Lokar, Inc., like *Decorative*, involved a claim of infringement of copyright in a set of instructions for use of uncopyrightable products. In *Shifter*, the instructions were designed to enable consumers to install after-market automotive-performance parts and accessories.¹⁰⁹ Lokar claimed that its instructions were creative enough to enjoy copyright protection because of its use of certain non-standard terms and the newness of the procedure that the instructions described.¹¹⁰ However, the court decided that Lokar's instructions were "merely the recitation of the mechanical steps and parts dictated by the installation process."¹¹¹ Naming the tools that purchasers must use to carry out the installation and the order of the installation steps were deemed unprotectable under the *scènes à faire* doctrine.¹¹²

v. Unico Holdings, Inc., 510 F. Supp. 2d 1078, 1080, 1082 (S.D. Fla. 2007) (finding infringement of copyright in instructions for use of bowel cleansing products). The Nimmer treatise has criticized *Fleet*. 4 NIMMER & NIMMER, *supra* note 8, § 13.03[E][1][b].

105. *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 156–57 (S.D.N.Y. 1980).

106. *Id.* at 157. Decorative tried to register a copyright in its custom pleats product, but the Copyright Office declined registration, deeming it uncopyrightable subject matter. *Id.* at 156 n.1.

107. *Id.* at 158.

108. *Id.* Instructions sometimes have a more narrative form than other types of compilations, but they are often analyzed as compilations, and plaintiffs often rely on similarities in selection and ordering as a basis for infringement claims. In *Decorative Aides*, for example, the court compared the composition and selection of elements in plaintiff's and defendant's respective instructions. *See id.* at 157; *see also* *Affiliated Hosp. Prods., Inc. v. Merdel Game Mfg. Co.*, 513 F.2d 1183, 1188–89 (2d Cir. 1975) (finding that simplicity of game rules blurs "the distinction between substance and arrangement" and holding that defendant did not infringe plaintiff's copyright: "We are encouraged in this conclusion through recognition of the fact that a contrary result would prevent publication of the rules of any simple game in the public domain . . . a result which would afford protection to the game itself.>").

109. *Gennie Shifter, LLC v. Lokar, Inc.*, No. 07-cv-01121, 2010 WL 126181, at *1 (D. Colo. Jan. 12, 2010).

110. *Id.* at *5.

111. *Id.* at *6.

112. *Id.* at *6–7. However, the court found close copying of "organization, structure, and diction" from Lokar's catalog to be infringing. *Id.* at *8.

3. *Systematic or Methodical Compilations.* The largest cluster of functional compilation cases are those whose creators selected and/or arranged the component parts of their compilations in the course of implementing a functional “procedure, process, system, [or] method of operation” that the 1976 Act directs should be unprotectable by copyright law.¹¹³ The systematic/methodical compilation cases may differ from the mechanical derivation and dictated-by-function categories of cases discussed above because the creators of systematic/methodical compilations may have a wider array of possible creative choices among the possible procedures, processes, systems and methods of operation through which to carry out the general purpose or function of the compilation. The creativity required to devise a new system, method, or the like does not make the compilation of constituent elements of the system copyright-protectable, in keeping with the Supreme Court’s *Baker v. Selden* decision.¹¹⁴

a. *Forms That Embody Methods or Systems.* The principal case establishing that functional considerations that influence the selection and arrangement of component elements of forms renders them unprotectable by copyright law is the Supreme Court’s 1879 decision in *Baker v. Selden*.¹¹⁵ Selden’s widow sued Baker for infringement because the forms in Baker’s book were substantially similar to those in Selden’s books, which she claimed Baker copied from Selden.¹¹⁶ The lower court ruled in Selden’s favor, and Baker appealed.¹¹⁷ The Supreme Court observed that if Selden “had the exclusive right to the use of the system explained in his book, it would be difficult to contend that the defendant does not infringe.”¹¹⁸ Selden argued “that the ruled

113. 17 U.S.C. § 102(b) (2012). Courts are rarely careful in distinguishing between “methodical” and “systematic” in the functional compilation case law. See *Baker v. Selden*, 101 U.S. 99, 101 (1879) (“It becomes important . . . to determine whether, in obtaining the copyright of his books, he secured the exclusive right to the use of the *system* or *method* of book-keeping which the said books are intended to illustrate and explain.”) (emphasis added). They sometimes use one term over the other without trying to define what makes the elements at stake either methodical or systematic. *Id.* Methods, processes, and procedures, like methods and systems, also have some overlapping meanings. See Samuelson, *Why Copyright Excludes Systems and Processes*, *supra* note 49, at 1951 n.204.

114. *Baker v. Selden*, 101 U.S. 99, 101–02 (1879).

115. See generally 101 U.S. 99 (1879). The Court relied in part on an English case, *Page v. Wisden* [1869] 20 LT 435 at 435–36 (Eng.), that had rejected a claim of copyright in a cricket-scoring sheet. *Id.* at 106–07.

116. *Id.* at 99–100.

117. *Id.* at 100. During the appeal process, Mrs. Selden made it clear that she intended to sue all of the counties that had adopted Baker’s forms unless they paid her for their use of the Selden system. Samuelson, *Baker Story*, *supra* note 29, at 167–68; see also Transcript of Record at 80, *Baker v. Selden*, 101 U.S. 99 (1879) (No. 322).

118. *Baker*, 101 U.S. at 100.

lines and headings, given to illustrate the [bookkeeping] system, are a part of the book, and, as such, are secured by the copyright” such that “no one can make or use . . . ruled lines and headings made and arranged on substantially the same system, without violating the copyright.”¹¹⁹ The Court rejected Selden’s claim and held that the copyright in Selden’s book extended only to his explanation of the bookkeeping system, not to the system itself.¹²⁰

Because the ruled lines and headings embodied in Selden’s forms were instantiations of the bookkeeping system, the forms themselves were unprotectable.¹²¹ The Court concluded its opinion by saying that “blank account-books are not the subject of copyright,” and “the mere copyright of Selden’s book did not confer upon him the exclusive right to make and use account-books, ruled and arranged as designated by him and described and illustrated in said book.”¹²²

There was unquestionably some creativity in the selection and arrangement of the ruled lines and headings in the Selden forms.¹²³ Although the date, number, amount, to and for categories on the forms were required by state law,¹²⁴ other words on the forms, along with the lines that separated different categories of items, were original to Selden. However, the selection and arrangement of words and lines on the forms were not created to be expressive in a copyright sense.¹²⁵ The headings and lines were constituent elements of the system Selden had devised, and the functionality of that system extended to its constituent elements, which was why the forms were

119. *Id.* at 101.

120. *Id.* at 102. It may be useful to conceptualize Selden’s bookkeeping system as the logical structure that underlay his innovation. The forms were a presentation structure (that is, a user interface) that instantiated the system and allowed users to interact with the forms to carry out the system Selden devised. *See id.* at 100.

121. *Id.* at 100, 106–07. The Nimmer treatise has long regarded Baker’s forms as non-infringing because of the differences between his forms and Selden’s. 1 NIMMER & NIMMER, *supra* note 8, § 2A.05[A][2][c]–[d]. While there were some differences in the two sets of forms, *see* Samuelson, *Baker Story*, *supra* note 29, at 170–71, the conventional understanding of the ruling in *Baker* is that even exact copying of the Selden forms would not have constituted infringement. *See, e.g.*, BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 64 (1967). For further discussion of Nimmer’s erroneous interpretation of *Baker*, *see* Samuelson, *Why Copyright Excludes Systems and Processes*, *supra* note 49, at 1953–61; Weinreb, *supra* note 18, at 1174–76, 1180 (finding no support for Nimmer’s reconstruction of *Baker* as an idea/expression case).

122. *Baker*, 101 U.S. at 107.

123. Selden claimed that his bookkeeping system was “a masterly achievement, worthy to be classed among the greatest benefactions of the age.” Transcript of Record at 21, *Baker v. Selden*, 101 U.S. 99 (1879) (No. 322).

124. *See* Samuelson, *Baker Story*, *supra* note 29, at 168–71.

125. *Baker*, 101 U.S. at 100–05.

uncopyrightable.¹²⁶ The best evidence that Selden himself thought that the forms and systems they embodied were functional was that the preface to his book stated that he had sought a patent on his novel system, which he had apparently not received.¹²⁷

Perhaps because of this, the Court considered Selden's system to be among the "useful arts" that might be eligible for patent protection, but not for copyright.¹²⁸ The plausibility of Selden's copyright claim was due to its embodiment in a printed work.¹²⁹ Most useful arts, the Court noted, "can only be represented in concrete forms of wood, metal, stone, or some other physical embodiment."¹³⁰ But "the principle is the same," no matter in what medium the useful art was embodied, because the "description of the art in a book, though entitled to the benefit of copyright, lays no foundation for an exclusive claim to the art itself."¹³¹ Only through the patent system could useful arts, such as bookkeeping systems, obtain intellectual property protection.¹³²

Baker originated the so-called "blank forms" exclusion from copyright protection.¹³³ That term comes, in fact, nearly straight out of the *Baker* decision.¹³⁴ Yet, Selden's form was far from blank; it contained several dozen words and two dozen columns.¹³⁵ Some of the words and columns were unoriginal to Selden because they were required by state law.¹³⁶ Yet, Selden's forms were original in a *Feistian* sense because of his creative selection and arrangement of the remaining columns and headings. Of course, the forms also had lots of blank spaces so that users of the Selden system could fill in numbers (e.g., the date and amount of disbursements) and other information (e.g., name of the account and purpose of the disbursements).¹³⁷

126. *Id.* at 104.

127. Transcript of Record at 21–22, *Baker v. Selden*, 101 U.S. 99 (1879) (No. 322).

128. *Baker*, 101 U.S. at 104–05.

129. *Id.*

130. *Id.* at 105.

131. *Id.*

132. *Id.* It is doubtful that the Selden system would be patentable under recent Supreme Court precedents. *See, e.g.,* *Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (invalidating patent for method of hedging risk of fluctuation in commodities prices because subject matter was ineligible as an "abstract idea").

133. Samuelson, *Baker Story*, *supra* note 29, at 185–86.

134. *Baker*, 101 U.S. at 107 ("[B]lank account-books are not the subject of copyright . . .").

135. *See* Samuelson, *Baker Story*, *supra* note 29, at 171 (showing words and columns on the Selden form).

136. *See supra* note 121 and accompanying text.

137. *See* Samuelson, *Baker Story*, *supra* note 29, at 171 (showing a reproduction of Selden's form).

Most of the words on Selden's forms identified more than two dozen categories of likely entries (e.g., school fund, bridge fund, soldiers' fund) with blank spaces on either side of each category so the proper debits and credits could be listed next to the name of that category of fund.¹³⁸ As noted earlier, the Court considered the forms to be implementations of the Selden system, which copyright law did not protect.¹³⁹ The forms, moreover, contained no explanatory text.¹⁴⁰

The Nimmer treatise has long taken a position contrary to *Baker's* admonition about the uncopyrightability of forms.¹⁴¹ It has opined that forms should be copyrightable as long as they exhibit a sufficient quantum of originality.¹⁴² The treatise has acknowledged that some forms, such as calendars that lay out days and months in a conventional manner, won't pass that minimum threshold test.¹⁴³ But many forms mix conventional and novel elements in a minimally creative way. Viewed as compilations, these types of forms arguably embody some originality.

A few cases in the late 1960s and early 1970s agreed with Nimmer's criticism of the blank form rule and upheld claims of copyright in forms. One such case was *Norton Printing Co. v. Augustana Hospital*.¹⁴⁴ Norton developed a form consisting of a checklist of possible medical lab tests.¹⁴⁵ Augustana copied it.¹⁴⁶ The court observed that "[the forms] are quite detailed and contain many separate categories and areas for examination."¹⁴⁷ Moreover, "the format and arrangement used, together with the

138. *Id.*

139. *See supra* notes 119–20 and accompanying text; *see also* Gorman, *supra* note 15, at 579 (stating contents of forms "will normally be dictated by the underlying facts, ideas, or systems being recorded, explained, or implemented").

140. *Baker*, 101 U.S. at 100–05, 107. Professor Gorman has observed that "in the case of printed forms, copyright analysis often intersects with patent policy (as it did in *Baker v. Selden*), which dictates the dissemination of the process or system underlying the forms unless there is compliance with the much more rigorous criteria for securing a patent." Gorman, *supra* note 15, at 580 (citing *Taylor Instrument Cos. v. Fawley-Brost Co.*, 139 F.2d 98, 99–101 (7th Cir. 1943) (holding temperature recording chart unprotectable in part because it was an integral part of a machine more suitable for patent protection)). The functionality of forms has been recognized by other commentators as well. *See Beldiman, supra* note 18, at 21–22; Weinreb, *supra* note 18, at 1177–80.

141. Weinreb, *supra* note 18, at 1179.

142. 1 NIMMER & NIMMER, *supra* note 8, §§ 2.08[C][1][b], 2A.05[A][2][b].

143. *Id.* § 2.11[A], [D].

144. 155 U.S.P.Q. (BNA) 133, 134–35 (N.D. Ill. 1967); *see also* *Harcourt, Brace & World, Inc. v. Graphics Controls Corp.*, 329 F. Supp. 517, 523 (S.D.N.Y. 1971) (upholding copyright claim in test answer sheet).

145. *Norton*, 155 U.S.P.Q. at 134.

146. *Id.*

147. *Id.* at 135.

different boxes and terms, . . . serve to convey information as to the type of tests to be conducted and the information which is deemed important.”¹⁴⁸ The court in *Norton* noted that the Nimmer treatise “strongly criticized” the blank form rule, concluding, as Nimmer had, that the rule was “without foundation.”¹⁴⁹

In response to *Norton*, the Copyright Office issued a Notice of Inquiry to get public comments about whether it should change its rule and policy regarding the exclusion of blank forms from copyright protection.¹⁵⁰ The Office received numerous comments, all of which endorsed a liberalization of the blank form rule.¹⁵¹ The Office considered the commentators’ arguments, but decided to retain its blank form rule because it regarded *Baker* and its progeny as the law.¹⁵² The Office cited approvingly to *John H. Harland Co. v. Clarke Checks*, which had recently followed *Baker*.¹⁵³ The Office noted that as in *Baker*, the defendant in *Harland* copied the novel system for recording information (namely, a memory stub for checkbook entries), not the explanatory materials in the plaintiff’s work.¹⁵⁴ The Office reiterated that forms, such as contracts and insurance policies, could be copyrighted as long as they conveyed information through contained explanatory text.¹⁵⁵

The Ninth Circuit also endorsed the conventional understanding of the blank form rule in *Bibbero Systems, Inc. v. Colwell Systems, Inc.*¹⁵⁶ The court described Bibbero’s forms thus:

Bibbero designs and markets blank forms known as “superbills” which doctors use to obtain reimbursement from insurance companies. Each superbill contains simple instructions to the patient for filing insurance claims; boxes for patient information; simple clauses assigning insurance benefits to the doctor and authorizing release of patient information; and two lengthy checklists for the doctor to

148. *Id.*

149. *Id.* at 134; 1 NIMMER & NIMMER, *supra* note 8, § 2.08[D][1]–[2].

150. See Registration of Claims to Copyright; Notice of Termination of Inquiry Regarding Blank Forms, 45 Fed. Reg. 63,297, 63,297–300 (Sept. 24, 1980) (setting forth the history of the Notice of Inquiry and its eventual termination).

151. *Id.* at 63,298–99. The rule was codified as 37 C.F.R. § 202.1(c) (2015).

152. Registration of Claims to Copyright; Notice of Termination of Inquiry Regarding Blank Forms, 45 Fed. Reg. at 63,298.

153. *Id.* at 63,299 (citing *John H. Harland Co. v. Clarke Checks*, 207 U.S.P.Q. (BNA) 664, 667 (N.D. Ga. 1980)). The *Harland* ruling was later affirmed in *John H. Harland Co. v. Clarke Checks*, 711 F.2d 966, 971–72 (11th Cir. 1983).

154. Registration of Claims to Copyright; Notice of Termination of Inquiry Regarding Blank Forms, 45 Fed. Reg. at 63,299.

155. *Id.* at 63,299–300.

156. 893 F.2d 1104 (9th Cir. 1990).

indicate the diagnosis and any services performed, as well as the applicable fee. All entries on the checklists are categories specified by the American Medical Association (AMA) or government publications, as are the code numbers accompanying each entry. The superbills differ according to specialty, to reflect the illnesses and treatments most relevant to the individual doctor.¹⁵⁷

Bibbero registered its claim as to individual forms, one of which Colwell was alleged to have infringed.¹⁵⁸ Bibbero relied upon *Norton* and emphasized that its form, like Norton's, conveyed information about what was important for doctors to record.¹⁵⁹ It was, Bibbero argued, a compilation of terms that was original enough to be copyrighted, as evidenced by the issuance of a registration certificate for the form.¹⁶⁰

The Ninth Circuit declined to follow *Norton* and pointed to the Copyright Office's decision not to liberalize the blank forms rule.¹⁶¹ It characterized *Norton*'s view of its checklists as "convey[ing] information" to be unhelpful because of its "potentially limitless" nature.¹⁶² Because Bibbero's form was "a convenient method for recording services performed," it was an uncopyrightable blank form.¹⁶³ The Ninth Circuit's conclusion that Bibbero's form ran afoul of the blank form rule "preclude[d]" Bibbero's claim that the form should be considered a copyrightable compilation.¹⁶⁴

Other cases decided after *Bibbero* have likewise held forms to be uncopyrightable, generally as incidental to business processes or as implementations of a method or system.¹⁶⁵

157. *Id.* at 1105.

158. *Id.* at 1106.

159. *Id.* at 1106–07.

160. *Id.* at 1106.

161. *Id.* at 1107.

162. *Id.* The Ninth Circuit pointed to the Copyright Office's decision not to change its blank form rule, 37 C.F.R. § 202.1(c), in support of its ruling. *Bibbero*, 893 F.2d at 1107.

163. *Id.* at 1107–08; *see also* Harper House, Inc. v. Thomas Nelson, Inc., 889 F.2d 197, 204–07 (9th Cir. 1989) (holding that plaintiff's information organizers were copyrightable compilations but afforded only limited protection and excluded blank forms, common property, and utilitarian elements).

164. *Bibbero*, 893 F.2d at 1108 n.3.

165. *See, e.g.*, Utopia Provider Sys., Inc. v. Pro-Med Clinical Sys., LLC, 596 F.3d 1313, 1317, 1324 (11th Cir. 2010) (finding templates for emergency medical procedures as "an integrated system for efficiently documenting a patient's symptoms, and the physician's conclusions" unprotectable by copyright law); *Hutchins v. Zoll Med. Corp.*, 430 F. Supp. 2d 24, 33 (D. Mass. 2006), *aff'd*, 492 F.3d 1377, 1385 (Fed. Cir. 2007) (denying copyright protection to phrases for CPR procedure because procedure was "entirely functional"); *Fin. Control Assocs., Inc. v. Equity Builders, Inc.*, 799 F. Supp. 1103, 1120, 1121 (D. Kan. 1992) (denying preliminary injunction because similarities largely due to implementing the same system of pre-payment of mortgages); *Gaye v. Gillis*, 167 F. Supp. 416, 418 (D. Mass. 1958) (finding similarities in the parties' coupon books were due to

b. *Systematically Organized Compilations.* *Baker v. Selden* is also the origin of the rule that precludes copyright protection for systematic organization of information.¹⁶⁶ Systematically organizing information infuses the compilation with functionality because the system's rules prescribe how the component elements are arranged.¹⁶⁷ Directories of useful information are often organized in a systematic way.¹⁶⁸

The systematic nature of organization of telephone information in a yellow pages directory limited the scope of copyright in *Bellsouth Advertising & Publishing Corp. v. Donnelley Information Publishing, Inc.* Bellsouth (aka BAPCO) sued a competitor in the yellow pages directory market for infringing the copyright in its directory.¹⁶⁹ Donnelley did not question the validity of BAPCO's copyright.¹⁷⁰ However, Donnelley asserted that insofar as the BAPCO's directory was the product of a systematic organization, Donnelley should be able to use the same system in its directory.¹⁷¹ The Eleventh Circuit agreed:

[T]o the extent that this similarity of format resulted from . . . the common arrangement and coordination of the two directories into alphabetized business classifications, with alphabetized listings under each classification, the district court erred by extending the scope of BAPCO's copyright to capture the system of organization common to all classified directories in the public domain.¹⁷²

their both having adopted the same method of collecting on delinquent accounts). In some cases, courts have rejected copyright claims in forms on *scènes à faire* grounds. *See, e.g.,* *Bucklew v. Hawkins, Ash, Baptie, & Co.*, 329 F.3d 923, 930–31 (7th Cir. 2003).

166. *Baker v. Selden*, 101 U.S. 99, 104 (1879). An older case that, like *Baker*, involved systematic organization of information is *Guthrie v. Curlett*, 10 F.2d 725, 725 (2d Cir. 1926). In his first lawsuit against Curlett, Guthrie sued for infringement of his patent for a novel method of compressing information about freight tariffs to make the information more comprehensible. *Id.* The Second Circuit struck down the patent for lack of patentable subject matter. *Id.* at 726. Having lost the patent claim, Guthrie then sued Curlett to enforce copyright in his consolidated freight index because the Curlett's compilation of data was substantially the same as Guthrie's. *Guthrie v. Curlett*, 36 F.2d 694, 695–96 (2d Cir. 1929). The Second Circuit denied this claim as well, finding the freight index to be unprotectable as inevitable and methodical in character. *Id.* at 696.

167. *See, e.g.,* *PIC Design Corp. v. Sterling Precision Corp.*, 231 F. Supp. 106, 110–11 (S.D.N.Y. 1964) (holding that a table of data of physical and mathematical characteristics of precision gears was unprotectable by copyright law because it was necessary to express the same system).

168. *See, e.g.,* *Bellsouth Advert. & Publ'g Corp. v. Donnelley Info. Publ'g, Inc.*, 999 F.2d 1436, 1439 (11th Cir. 1993) (describing the organization of a telephone book).

169. *Id.* at 1439.

170. *Id.*

171. *Id.* at 1444–45.

172. *Id.* The court also observed that because of “the extent to which the heading structure of a classified business directory is dictated by functional considerations and

The Eleventh Circuit ruled that this result was required by the Supreme Court's *Feist* decision.¹⁷³

BAPCO's directory was not the only one to be organized in a systematic way.¹⁷⁴ Some directories may have enough and the right kind of creativity in selection of entries (e.g., a directory of 100 best restaurants in a city) or of headings (e.g., yellow pages categories of businesses), as well as in the arrangement of elements (e.g., clustering of data into various categories) to satisfy copyright standards.¹⁷⁵ However, the more systematic its selection and arrangement, the less copyright protection a directory can claim.¹⁷⁶

c. Recipes as Procedural Compilations. Recipes are compilations insofar as their creators select out of the universe of all possible ingredients those that they choose and what quantity of each ingredient will be required to make each dish. Recipe creators generally arrange those ingredients in a systematic way, as well as setting forth the procedure for preparing each dish. The Seventh Circuit's decision in *Publications International Ltd. v. Meredith Corp.* characterized the recipes at issue in that case as compilations,¹⁷⁷ but decided they were not protectable by copyright law.¹⁷⁸

common industry practice, the differences apparent in the glossary of headings employed by Donnelley are sufficient to rebut any inference of copying." *Id.* at 1443.

173. *Id.* at 1445.

174. *See, e.g.,* Warren Publ'g v. Microdos Data Corp., 115 F.3d 1509, 1517–19 (11th Cir. 1997) (holding unprotectable a systematic organization of cable television directory; *see also* Beldiman, *supra* note 18, at 27–30; Bitton, *supra* note 15, at 665 (“Neither the placement of listings within a category nor other decisions about arrangement in a directory are particularly subjective; both seem to be dictated by utilitarian considerations.”)).

175. *See, e.g.,* Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc., 945 F.2d 509, 514 (2d Cir. 1991). Some telephone directories have been held copyrightable in the aftermath of *Feist* insofar as the directories embodied some creative selection and arrangement of elements. *See id.* at 513–14 (holding a classified directory of information about businesses likely to be of interest to Chinese-Americans in New York to be copyrightable, but not infringed because of differences in the listings and categories of information in the two directories).

176. *Id.* at 514–16.

177. *Publ'ns Int'l v. Meredith Corp.*, 88 F.3d 473, 480 (7th Cir. 1996). The plaintiff's cookbook containing the recipes was registered as a compilation. *Id.* at 475. The court concluded that the copyright did not extend to the individual recipes, only the “manner and order in which they are presented.” *Id.* at 482; *see also* Lorenzana v. S. Am. Rests. Corp., 799 F.3d 31, 34 (1st Cir. 2015) (recipe for chicken sandwich uncopyrightable); Tomaydo-Tomahhdo, LLC v. Vozary, 629 Fed. App'x 658, 661 (6th Cir. 2015) (recipes excluded from copyright protection as list of ingredients and instructions are functional); Lambing v. Godiva Chocolatier, No. 97-5697, 1998 WL 58050, at *1 (6th Cir. 1998) (“[R]ecipes are functional directions for achieving a result and are excluded from copyright protection under 17 U.S.C. § 102(b).”); Hassett v. Hasselbeck, No. 14-14760-GAO, at *3–5 (D. Mass. 2016) (gluten-free recipes unprotectable because “purely functional”).

178. *Meredith*, 88 F.3d at 480. The court noted that the accused recipes were “functionally identical to their counterparts” in Meredith's publication. *Id.* at 476.

The recipes involved in this case comprise the lists of required ingredients and the directions for combining them to achieve the final products. The recipes contain no expressive elaboration upon either of these functional components, as opposed to recipes that might spice up functional directives by weaving in creative narrative.¹⁷⁹

There was “no literary expression” and “no expressive elaboration” in Meredith’s recipes that might satisfy copyright’s originality standard.¹⁸⁰ The list of ingredients was, the court ruled, a statement of facts that was unprotectable by copyright law.¹⁸¹ The directions for how to prepare the dishes set forth in the recipes were unprotectable procedures under § 102(b).¹⁸² The court cited approvingly to the Nimmer treatise for the proposition that standard format recipes are dictated by functional considerations.¹⁸³

4. *External Factor and Efficiency Constraints on Compilations.* That external factors and efficiency considerations may limit copyright protection was first recognized by the Second Circuit Court of Appeals in *Computer Associates International, Inc. v. Altai, Inc.*¹⁸⁴ Although *Altai* was a software case, not a compilation case, the key principle it articulated—that when external factors and efficiencies constrain design choices of subsequent creators, those constrained elements should be filtered out as uncopyrightable—is general enough to apply to other copyrighted works as well.¹⁸⁵

Among the external factors the Second Circuit considered relevant in *Altai* were the need to be compatible with other products, market demands, and standard techniques in a field.¹⁸⁶ Compatibility is a functionality constraint because one product cannot work or compete with another product without using the same interface.¹⁸⁷ Market demands may also impose

179. *Id.* at 480.

180. *Id.*

181. *Id.*

182. *Id.* at 480–81 (citing 17 U.S.C. § 102(b) (2012) (“In no case does copyright protection for an original work of authorship extend to any . . . procedure . . . regardless of [how it may be] . . . embodied in such work.”)).

183. *Meredith*, 88 F.3d at 481.

184. 982 F.2d 693, 710 (2d Cir. 1992).

185. *Id.* at 707–10; see, e.g., *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 105 (2d Cir. 2014) (adapting *Altai* filtration categories for cases involving architectural works).

186. *Altai*, 982 F.2d at 709–10.

187. See, e.g., *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 542 (6th Cir. 2004) (holding printer cartridge software unprotectable by copyright law because its re-use was necessary to enable interoperability with a printer).

functionality constraints on later creator's design choices.¹⁸⁸ Standard techniques, along with industry standards, almost by definition, are functional in nature.¹⁸⁹ When one way of accomplishing a task is more efficient than others, courts have decided that copyright law should not block second comers' ability to use it, even if other less efficient options are available.¹⁹⁰ It is socially undesirable to require second comers to adopt functionally inferior options.¹⁹¹ These kinds of functionality constraints can be found in the compilation case law as well.¹⁹²

The dispute in *Southco, Inc. v. Kanebridge Corp.*, for instance, raised both compatibility and market demand considerations. Southco claimed that the names and numbers of hardware parts that it published in its catalog were copyrightable and that Kanebridge had infringed Southco's copyright by reproducing them in its competing catalog.¹⁹³ In rejecting this claim, the Third Circuit Court of Appeals emphasized the systematic nature of Southco's name-and-numbering system.¹⁹⁴ Each of Southco's product numbers, the court noted, "is rigidly dictated by the rules of the Southco system."¹⁹⁵ Once the system for naming the products and

188. See, e.g., *Plains Cotton Coop. Ass'n v. Goodpasture Comput. Servs.*, 807 F.2d 1256, 1262 (5th Cir. 1987) (finding that cotton market industry expectations limited design choices of programmers trying to serve that market); see also *TraFFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 32–33 (2001) (finding features of products too functional to qualify for trade dress protection where claimant's exclusive use of the features would put others at a significant non-reputational competitive disadvantage).

189. See, e.g., *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1439 (9th Cir. 1992) (holding elements of graphical user interface unprotectable because they had become industry standard).

190. *Altai*, 982 F.2d at 707–08.

191. *Id.*

192. For example, the Second Circuit in *Matthew Bender & Co. v. West Publishing Co.* offered guidance about copyright-relevant creativity in selection and arrangement, saying it was "a function of (i) the total number of options available, (ii) external factors that limit the viability of certain options and render others non-creative, and (iii) prior uses that render certain selections 'garden variety.'" 158 F.3d 674, 682–83 (2d Cir. 1998).

193. 390 F.3d 276, 279 (3d Cir. 2004). The author of the *Southco* opinion was then Judge, now Justice, Samuel Alito. See also *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1213 (8th Cir. 1986) (holding that lawn care replacement product names and numbers lacked originality because of arbitrariness in assigning them to parts); *Windgate Software, L.L.C. v. Minn. Computs., Inc.*, 504 F. Supp. 2d 582, 584, 586, 589 (D. Minn. 2007) (finding no infringement where IBM part numbers and identifying information were copied from plaintiff's database); *R&B, Inc. v. Needa Parts Mfg., Inc.*, 418 F. Supp. 2d 684, 695 (E.D. Pa. 2005) (rejecting claim of copyright in auto part numbering system for lack of originality, relying on *Southco*); *Sumner Mfg. Co. v. Midco Mfg. Co.*, 29 U.S.P.Q.2d (BNA) 1230, 1232 (S.D. Tex. 1993) (pipe jack part numbers not protectable). The primary decision on which the *Southco* plaintiff relied was *American Dental Ass'n v. Delta Dental Plans Ass'n*, 126 F.3d 977 (7th Cir. 1997), which is discussed *infra* Part III.B.1.

194. *Southco*, 390 F.3d at 282.

195. *Id.*; see also *Project Dev. Grp., Inc. v. O.H. Materials Corp.*, 766 F. Supp. 1348,

assigning numbers to the products had been devised, Southco did not exercise “the slightest element of creativity” so the names and numbers were lacking in originality.¹⁹⁶ By emphasizing that the system “dictated the logic” of the parts numbers, the court implicitly invoked the merger doctrine as well.¹⁹⁷ To top it off, the court said that “[t]he Southco numbers are purely functional,” as well as running afoul of copyright’s exclusion of words and short phrases.¹⁹⁸ A concurring opinion invoked the *scènes à faire* doctrine insofar as the names and numbers had become an industry standard.¹⁹⁹

Underneath the doctrinal cocktail of the several rationales that defeated Southco’s claim,²⁰⁰ the Third Circuit may have implicitly understood the compatibility considerations and market demand issues that were at stake in the case. Kanebridge was selling hardware parts that were compatible with and substitutes for the (uncopyrightable) hardware parts that Southco was selling.²⁰¹ Kanebridge wanted to let prospective customers know that compatible (and probably cheaper) alternatives existed to the products sold by Southco.²⁰² The best way to accomplish this objective was to use the same names and numbers that Southco had used in its catalogs. Southco wasn’t making money from selling those names and numbers.²⁰³ It was making money by selling hardware parts, and it was trying to use copyright law to impede competition in the market for hardware parts by depriving prospective customers of useful information about possible marketplace choices.²⁰⁴ Lurking in the background of the *Southco* case was a danger that the claim of copyright in part numbering systems would give the plaintiffs “a monopoly on the typically uncopyrightable product” to which the names and numbers were assigned.²⁰⁵

1354 (W.D. Pa. 1991) (granting summary judgment against claim of compilation copyright infringement arising from copying of facts, procedures, and processes in bid documents because some elements in the bids were required by regulations).

196. *Southco*, 390 F.3d at 282.

197. *Id.*

198. *Id.* at 284–85. One judge dissented because he perceived enough creativity in the name and numbering system to support Southco’s copyright claim. *Id.* at 291–92 (Roth, J., dissenting).

199. *Id.* at 287 (Becker, J., concurring).

200. Thanks to Molly Van Houweling for introducing the “doctrinal cocktail” metaphor to me.

201. *Southco*, 390 F.3d at 279.

202. *Id.*

203. *See id.* at 278.

204. *See id.* at 279.

205. *SmithKline Beecham Consumer Healthcare, L.P. v. Watson Pharm., Inc.*, 211 F.3d 21, 25–29, 29 n.5 (2d Cir. 2000) (holding that the wording on the label for a drug was uncopyrightable because the Food and Drug Administration required use of the same wording as had been approved for the sale of the same drug sold by SmithKline); *see also*

A very similar case decided in the Sixth Circuit was *ATC Distribution Group, Inc. v. Whatever It Takes Transmissions & Parts, Inc.*²⁰⁶ Like the Third Circuit in *Southco*, the Sixth Circuit in *ATC* was unpersuaded that a taxonomy of names and associated numbers of hardware parts was copyrightable expression.²⁰⁷ *ATC*'s claim failed on merger and lack of originality grounds.²⁰⁸ "For almost all of the types of creativity claimed by *ATC*, there is only one reasonable way to express the underlying idea."²⁰⁹ Besides, it would be "extremely inefficient" to require *ATC*'s competitors in the sale of transmission parts to adopt alternative numbering schemes for their equivalent parts.²¹⁰ Although the Sixth Circuit did not expressly describe *ATC*'s parts name-and-numbering scheme as functional, it is fair to infer that the functionality of the parts themselves contributed to the court's unwillingness to characterize the names and numbers assigned to the parts as copyrightable expression.

Another example of industry standards as a factor relevant to a claim of copyright of a functional compilation arose in *Mid America Title Co. v. Kirk*.²¹¹ *Mid America* asserted copyright in a compilation of terms in its real estate title commitment document.²¹² The Seventh Circuit observed that "[s]electing

N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc., 497 F.3d 109, 116–18 (2d Cir. 2007) (treating settlement prices promulgated by NYMEX as facts by marketplace actors for future trading activities so that others such as ICE could use these prices in their trades).

206. 402 F.3d 700 (6th Cir. 2004).

207. *Id.* at 705–06.

208. *Id.* at 707. The *ATC* name-number allocation for transmission parts were partly a product of a system of categorization that *ATC* set forth in its Numbering System Manual. *Id.* at 705–06. Other parts of the number allocations were the product of "an essentially random process, serving only to provide a useful shorthand way of referring to each part." *Id.* at 709. The court observed:

The only reason that a "sealing ring, pump slide" is allocated number 176 is the random ordering of sub-categories of parts, and the random ordering of parts within that sub-category. Were it not for a series of random orderings within each category field, a given part could be 47165 or 89386. As such, the particular numbers allocated to each part do not *express* any of the creative ideas that went into the classification scheme in any way that could be considered eligible for copyright protection.

Id. at 709.

209. *Id.* at 707. This is probably wrong; there were many ways to link names with numbers of transmission parts.

210. *Id.* at 709.

211. 59 F.3d 719 (7th Cir. 1995); *see also* RBC Nice Bearings, Inc. v. Peer Bearing Co., 676 F. Supp. 2d 9, 15, 22–23 (D. Conn. 2009) (finding numbers for ball bearings uncopyrightable because they were the industry standard), *aff'd*, 410 Fed. App'x 362 (2d Cir. 2010); Nautical Sols. Mktg., Inc. v. Boats.com, No. 8:02-CV-760-T-23TGW, 2004 WL 783121, at *2–3 (M.D. Fla. 2004) (finding industry-standard headings for yacht listings on broker websites not a basis for copyright infringement).

212. *Mid America*, 59 F.3d at 720.

which facts to include in this compilation of data was not a matter of discretion based on Mid America's personal judgment or taste, but instead was a matter of convention and strict industry standards."²¹³ Although Mid America's president testified about a variety of decisions that the firm's personnel made in devising the terms in the document, the court concluded that the selection of facts to incorporate in it was "too rote and mechanical" to satisfy copyright's originality standard.²¹⁴

5. *Summing Up.* This Section has given numerous examples of four principal types of functional constraints on the copyrightability of (or in some cases, the scope of copyright in) compilations: those that were mechanically derived, those that were dictated by the function to be performed, those that were methodical or systematic, and those that were constrained by external factors or efficiency considerations.

These four types of functionality that courts identified in the case law do not, however, exhaust the range of possible functionalities that limit copyright protection. There have been numerous other compilation cases in which functionality served as a limit on copyright when claiming rights in labels,²¹⁵ charts,²¹⁶ legal documents,²¹⁷ contests,²¹⁸ games,²¹⁹ and maps.²²⁰

213. *Id.* at 722.

214. *Id.*

215. *See, e.g.,* SmithKline Beecham Consumer Healthcare, LP v. Watson Pharm., 211 F.3d 21, 23–26 (2d Cir. 2000) (noting labels legally required to have same facts, safety, and efficacy information).

216. *See, e.g.,* Tastefully Simple, Inc. v. Two Sisters Gourmet, LLC, 134 F. App'x 1, 5 (6th Cir. 2005) (finding merger doctrine precluded copyright in chart of data about state tax departments and their tax rates); Coates-Freeman Assocs., Inc. v. Polaroid Corp., 792 F. Supp. 879, 883–85 (D. Mass. 1992) (holding decision-making chart unprotectable because of logical character); Matthew Bender & Co. v. Kluwer Law Book Publishers, Inc., 672 F. Supp. 107, 108–11 (S.D.N.Y. 1987) (finding chart of information relevant to size of awards in personal injury cases unprotectable because it represented "the most logical and clear way of expressing . . . the desired information").

217. *See, e.g.,* R.W. Beck, Inc. v. E3 Consulting, LLC, 577 F.3d 1133, 1144–45 (10th Cir. 2009) (recognizing that language limiting liability in a legal document may be unprotectable by copyright law on account of its functionality, but denying motion to dismiss copyright claim); Merritt Forbes & Co. v. Newman Inv. Sec., Inc., 604 F. Supp. 943, 951–53 (S.D.N.Y. 1985) (holding functionality of language in a bond document to be a question of fact for the jury to resolve).

218. *See, e.g.,* CMM Cable Rep, Inc., v. Ocean Coast Props., Inc., 97 F.3d 1504, 1520 (1st Cir. 1996) (characterizing certain phrases for radio contest as "inescapably functional").

219. *See, e.g.,* Hoopla Sports & Entm't, Inc. v. Nike, Inc., 947 F. Supp. 347, 350, 354 (N.D. Ill. 1996) (finding unique combination of elements but holding game unprotectable by copyright law); *see also* Atari Games Corp. v. Oman, 888 F.2d 878, 886 (D.C. Cir. 1989) (reversing Copyright Office refusal to register game based on its view that the game's design was functionally constrained).

220. *See, e.g.,* Kern River Gas Transmission Co. v. Coastal Corp., 899 F.2d 1458, 1464 (5th Cir. 1990) (holding map of pipeline route unprotectable because it was the only effective way to depict the route); *see also* Gorman, *supra* note 15, at 564 (maps "dictated

Some of these compilations, like those discussed above, have been too functional to be protectable by copyright law.²²¹ Or if protectable, the scope of copyright protection has been sufficiently thin that defendants have dodged infringement claims as long as they varied their expressions in nontrivial ways.²²²

III. FUNCTIONALITY AND EXPRESSION IN COMPILATIONS

Delving into the copyrightability of compilations has raised some fundamental questions. Part II considered what it means to characterize a compilation as “functional.” Part III explores what it means to say a compilation is “expressive.” Can a work be both a compilation and an expressive work? What makes a work of authorship sufficiently expressive in selection and arrangement to qualify as a compilation? And how should courts assess compilations that arguably contain some expressiveness but are nonetheless functional?

A. *What Makes a Compilation Expressive?*

Compilations can be and sometimes are expressive in a conventional copyright sense. A newspaper’s list of the 100 best restaurants in a major city based on the compiler’s weighting of subjective impressions is one example.²²³ A writer’s compilation of the most beautiful poems of the 20th century is another.²²⁴ A book recommending a thousand places to go before you die, based on the compiler’s positive experiences in those places, is a third.²²⁵ A sound recording of classical music “favorites” is a fourth.²²⁶ A cookbook by a famous chef containing a collection of recipes is a fifth.²²⁷

by fact”). Gorman also characterizes maps as compilations insofar as their creation involves selecting and arranging preexisting data. *Id.* But, of course, maps can also be artistic works. *Id.* at 565.

221. See, e.g., *CMM Cable Rep*, 97 F.3d at 1520.

222. See, e.g., *id.* at 1510–11, 1525 (enough dissimilarities in wording about radio contest rules to be non-infringing); see also *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 158 (S.D.N.Y. 1980) (enough differences in drapery card instructions to avoid infringement), *aff’d*, 657 F.2d 262 (2d Cir. 1981).

223. The San Francisco Chronicle publishes annually an alphabetical list of the 100 best restaurants in the Bay Area. *Top 100 Restaurants*, S.F. CHRON., <http://projects.sfchronicle.com/2016/top-100-restaurants/> [https://perma.cc/QS6W-QZ5J]. Similar compilation copyrights have been upheld. See, e.g., *Adventures in Good Eating v. Best Places to Eat*, 131 F.2d 809, 811 (7th Cir. 1942) (holding copyright in compilation of recommended restaurants valid and infringed).

224. See, e.g., THE PENGUIN ANTHOLOGY OF TWENTIETH-CENTURY AMERICAN POETRY (Rita Dove ed., 2013).

225. See, e.g., PATRICIA SCHULTZ, 1,000 PLACES TO SEE BEFORE YOU DIE (2d ed. 2015).

226. See, e.g., MITSUKO UCHIDA, NETHERLANDS WINDS ENSEMBLE & SIR NEVILLE

Of course, one can say that expressive works generally, and expressive compilations in particular, have some “functions.” They typically entertain, educate, inform, please, amuse, enthrall, or evoke other emotional responses in their readers, viewers and listeners. Yet, these types of educational and cultural enrichment functions are quite distinct from the more task-oriented functions discussed in Part II. Copyright law has long treated the educational and cultural enrichment roles of copyrighted works as “non-functional” in character.²²⁸

What might make the educational and cultural enrichment compilations expressive? The compilation copyright case law provides some insights into what might make a compilation sufficiently expressive to qualify for copyright protection. In *Meredith*, for instance, the Seventh Circuit indicated that to be copyright-protectable, recipes would need to have “literary expression” or embody “expressive elaboration.”²²⁹ In *Mid America*, the Seventh Circuit emphasized that the exercise of “personal judgment or taste” would make a compilation copyrightable.²³⁰ In *CCC*, the infusion of “personal opinion” was found to evince expressive originality in compilations.²³¹ In *NYMEX*, the Second Circuit suggested that “sentiment” might support the presence of expressive originality.²³² Commentators have suggested other terms indicative of expressiveness, such as subjectivity or taste, judgment, or imagination.²³³ One commentator has suggested an intentionality test for whether a

MARRINER, THE BEST OF MOZART (Universal Music Pty. Ltd. 1999); see also *Eckes v. Card Prices Update*, 736 F.2d 859, 860 (2d Cir. 1984) (upholding copyright in compilation of “premium” baseball cards); *List Pub. Co. v. Keller*, 30 F. 772, 772–74 (C.C.S.D.N.Y. 1887) (compilation of socially prominent people in New York was copyrightable and infringed).

227. See, e.g., YOTAM OTTOLENGHI, PLENTY: VIBRANT VEGETABLES FROM LONDON'S OTTOLENGHI (Chronicle Books LLC 2011) (2010).

228. See, e.g., *Baker v. Selden*, 101 U.S. 99, 102 (1879) (distinguishing between text explaining a bookkeeping system and the system itself); 1 GOLDSTEIN, *supra* note 19, § 2.15 (describing what makes a work functional).

229. *Pub'ns Int'l, Ltd. v. Meredith Corp.*, 88 F.3d 473, 480 (7th Cir. 1996).

230. *Mid Am. Title Co. v. Kirk*, 59 F.3d 719, 722 (7th Cir. 1995).

231. *CCC Info. Servs., Inc. v. MacLean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 71 (2d Cir. 1994) (quoting *Kregos v. AP*, 937 F.2d 700, 707 (2d Cir. 1991)). *But see* Ginsburg, *Creation and Commercial Value*, *supra* note 15, at 1868 (“Personality-based characteristics in many [fact compilations] seem contrived.”).

232. See *N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc.*, 497 F.3d 109, 115 (2d Cir. 2007).

233. Durham, *supra* note 15, at 844–47; Ginsburg, *Creation and Commercial Value*, *supra* note 15, at 1901. Here are some additional synonyms of “expressive” that may be useful in separating the expressive sheep from the functional goats in compilation copyright cases (in no particular order): communicative, artistic, fanciful, dramatic, emotional, vivid, decorative, signifying, aesthetic, appealing to senses, pleasing, beautiful, entertaining, tasteful, evocative, subjective, colorful, elaborate, literary, clever, insightful, thoughtful, thought-provoking, profound, and moving.

compilation is expressive or functional: “Did the author intend to express him or herself, or did the author intend to perform a function?”²³⁴

Pre-*Feist* Supreme Court decisions offer some insights about expressive originality as well. The Court in *Baker* identified ornamentality, appeal to taste, and explanation as characteristics of expressiveness in copyrighted works.²³⁵ In *Burrough-Giles Lithographic Co. v. Sarony*, the Court emphasized the intellectual creativity in the photographer’s aesthetic selection of Oscar Wilde’s costume and arrangement of his pose against the photographer’s chosen backdrop in upholding the copyright in the photograph that Sarony had copied.²³⁶ In *Bleistein v. Donaldson Lithographing Co.*, the Court spoke of the “personal reaction of an individual upon nature” as indicative of originality in pictorial works.²³⁷ “Personality always contains something unique. It expresses its singularity even in handwriting, and a very modest grade of art has in it something irreducible, which is one man’s alone.”²³⁸ The circus poster at issue in *Bleistein* contained, in the Court’s view, sufficient originality to satisfy copyright standards.²³⁹

The Court in *Feist* had far less to say about expressive originality than these previous cases. The Court’s main intentions in *Feist* were, first, to clarify that no copyright can exist in facts,²⁴⁰ and, second, to debunk the “sweat of the brow,” or “industrious collection,” theory of originality that had long underlain a series of cases involving white pages and similarly uncreative compilations.²⁴¹

The Court in *Feist* gave scant guidance about which characteristics or factors to look for in making a judgment about the type and quantum of creativity necessary to satisfy copyright’s originality standard. Instead, the Court used numerous vague phrases such as “some creative spark,”

234. Malkan, *supra* note 1, at 492.

235. *Baker v. Selden*, 101 U.S. 99, 103–05 (1879).

236. 111 U.S. 53, 60 (1884).

237. 188 U.S. 239, 250 (1903). For an excellent discussion of the *Bleistein* case, see generally Dianne Leenheer Zimmerman, *The Story of Bleistein v. Donaldson Lithographing Company: Originality as a Vehicle for Copyright Inclusivity*, in INTELLECTUAL PROPERTY STORIES, *supra* note 29.

238. *Bleistein*, 188 U.S. at 250.

239. *Id.* at 249–50.

240. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345–48 (1991).

241. See, e.g., *Leon v. Pac. Tel. & Tel. Co.*, 91 F.2d 484, 484 (9th Cir. 1937) (telephone directory); *Jeweler’s Circular Publ’g Co. v. Keystone Publ’g Co.*, 281 F. 83, 84 (2d Cir. 1922) (index of jewelry trademarks). The Court repudiated such decisions in *Feist*, 499 U.S. at 352–55.

“modicum of creativity,” “fruits of intellectual labor,” and “a minimal degree of creativity” to explain what courts look for in making judgments about originality.²⁴² *Feist* gives only two small hints about expressive originality indicators, for the Court at one point speaks about “subjective” elements and at another the existence of “choice.”²⁴³ Subjective choices as indicators of expressive originality seem consistent with the personal opinion indicators that the Second Circuit emphasized in *CCC*. Courts should look for indicia of these sorts in reviewing compilation copyright cases.

It may be helpful to think of compilations in terms of a spectrum from most expressive (e.g., 100 best poems) to most functional (e.g., compilation of key measurements) and consider whether a compilation before the court is closer to one end of that spectrum than the other. Some compilations will, however, present close calls.

B. Close-Call Compilation Cases and Their Progeny

This Article has thus far concentrated its analysis mainly on those compilation cases in which courts have acknowledged the functionality of the compilations under review.²⁴⁴ This Section discusses two major cases, *American Dental Ass’n v. Delta Dental Plans Ass’n*²⁴⁵ and *CCC Information Services v. Maclean Hunter Market Reports*,²⁴⁶ in which appellate courts were persuaded that copyrights in compilations were valid and seemingly infringed. Both cases involved compilations that were much less expressive and more functional than the compilations discussed in Section A. Both decisions are notable for the analyses by which the courts reached their judgments, as well as for litigations

242. *Feist*, 499 U.S. at 345–48; see, e.g., Bitton, *supra* note 15, at 625 (complaining about the lack of guidance about what level of creativity would satisfy the originality standard).

243. *Feist*, 499 U.S. at 348.

244. It is an interesting and seemingly unsettled question whether the functionality or expressiveness of a compilation is a matter for judges or juries to decide. In most cases studied for this Article, judges decided the matters on summary judgment motions. See, e.g., *Hutchins v. Zoll Med. Corp.*, 492 F.3d 1377, 1385 (Fed. Cir. 2007); *Decorative Aides Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 157 (S.D.N.Y. 1980), *aff’d*, 657 F.2d 262 (2d Cir. 1981). Sometimes, functional compilation cases have even been dismissed at the pleading stage. See, e.g., *Coates-Freeman Assocs., Inc. v. Polaroid Corp.*, 792 F. Supp. 879, 880 (D. Mass. 1992). But courts sometimes send these cases to juries to decide whether the part of the work alleged to be infringed was functional. See, e.g., *Merritt Forbes & Co. v. Newman Inv. Sec., Inc.*, 604 F. Supp. 943, 952–53 (S.D.N.Y. 1985) (functionality of language in a bond document held to be a question of fact for the jury to resolve).

245. 126 F.3d 977 (7th Cir. 1997).

246. 44 F.3d 61 (2d Cir. 1994).

spawned in their aftermaths in which plaintiffs unsuccessfully relied on the *ADA* and *CCC* decisions.

1. *American Dental Ass'n v. Delta Dental Plan Ass'n*. At issue in the *ADA* case was whether an organized set of names and numbers assigned to specific dental procedures was protectable expression in the copyrighted Code document embodying them.²⁴⁷ After Delta Dental copied most of the names and numbers in its publication, ADA sued Delta for infringing its copyright.²⁴⁸ The district court granted summary judgment to Delta, ruling that the ADA's compilation of names and numbers for dental procedures was not copyrightable because it lacked originality, was an instance of merger of expression and facts or procedures, and was too useful.²⁴⁹ The Seventh Circuit, in a decision by Judge Frank Easterbrook, vacated this ruling and remanded the case for further proceedings.²⁵⁰

An important rhetorical move in the *ADA* decision was Judge Easterbrook's characterization of the set of names and numbers at issue as a "taxonomy."²⁵¹ He rejected the district court's description of the Code as a compilation, stating that "[i]t could be a compilation only if its elements existed independently and the ADA merely put them in order."²⁵² Instead, Judge Easterbrook regarded the ADA taxonomy as "a way of *describing* items in a body of knowledge or practice."²⁵³ Conceiving of the taxonomy in this way reinforced his conception of it as an expressive element of the Code. The names and numbers were, in his view, original because there was some creativity in the classification scheme the ADA had devised.²⁵⁴ There was, in his

247. *ADA*, 126 F.3d at 977–78.

248. *Id.*

249. *Amer. Dental Ass'n v. Delta Dental Plans Ass'n*, 39 U.S.P.Q.2d (BNA) 1714 (N.D. Ill. 1996), *rev'd*, 126 F.3d 977 (7th Cir. 1997). The collaborative nature of the development of the Code over time and its comprehensiveness undermined, in the trial court's view, ADA's claim of original authorship. *Id.* at 1725–26. But the main ground for the trial court's ruling was the utility of the compilation. *See id.*

250. *ADA*, 126 F.3d at 977, 981. Delta's other defenses included fair use and an entitlement to use the names and numbers under an express or implied license or as a joint author of the nomenclature. *Id.* at 977–78.

251. *Id.* at 977. The district court decision spoke of the Code as a compilation, *ADA*, 39 U.S.P.Q.2d (BNA) at 1723, and did not use the word "taxonomy" at all.

252. *ADA*, 126 F.3d at 980. As the Sixth Circuit noted in a subsequent case, "[t]his requirement that the elements of a compilation must exist independently of the act of compilation cannot be reconciled with the statutory language, which states that a compilation is a collection or assembly of 'preexisting materials *or of data*.'" *ATC Distribution Grp., Inc. v. Whatever It Takes Transmissions*, 402 F.3d 700, 710 n.6 (6th Cir. 2005) (citing 17 U.S.C. § 103).

253. *ADA*, 126 F.3d at 980.

254. *Id.* at 979–80. There may have been other methods or systems of organizing the

view, no merger of idea and expression because there was more than one way that the ADA could have classified the dental procedures and assigned numbers to them.²⁵⁵ Indeed, Judge Easterbrook regarded each name and each number in this taxonomy as an original work of authorship that qualified for copyright protection.²⁵⁶

Judge Easterbrook recognized that functionality disqualified some creations, such as lamps and other industrial designs, from copyright protection, but did not perceive the Code names and numbers to be functional.²⁵⁷ Judge Easterbrook might have bolstered his non-functionality argument by pointing out that the 1976 Act's definition of "useful article" implies that conveying information is not a kind of functionality that precludes copyright protection.²⁵⁸ That term is defined as "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information."²⁵⁹ This definition suggests that conveying information is not a type of functionality that disqualifies works from copyright, which would mean that compilations of information are non-functional by definition.

However, Part II of this Article has amply demonstrated that courts have sometimes recognized compilations that conveyed information to be too functional to qualify for copyright protection. A closer examination of the facts of the ADA case suggests that the coding system at issue was much more functional than Judge Easterbrook was willing to admit. The major purpose of the Code was to standardize the names and numbers of dental procedures in order "to reduce transaction costs both for dentists and third-party payers by providing dentists with a consistent and convenient means to report

dental procedure names and numbers, but this did not make the one ADA chose into a copyrightable one. *See Bikram's Yoga Coll. of India, L.P. v. Evolation Yoga, LLC*, 803 F.3d 1032, 1040–42 (9th Cir. 2015) (existence of other possible systems did not make Bikram's yoga system copyrightable).

255. ADA, 126 F.3d. at 979; *see, e.g.*, Beldiman, *supra* note 18, at 38 (criticizing the ADA decision for offering "illusory alternatives" to ADA's coding scheme).

256. *See ADA*, 126 F.3d at 979 ("[A]ll three elements of the Code—numbers, short descriptions, and long descriptions, are copyrightable subject matter under 17 U.S.C. § 102(a)."). Later decisions expressed skepticism about this conclusion. *See, e.g., ATC Distribution Grp.*, 402 F.3d at 708.

257. ADA, 126 F.3d at 980. Lamps and industrial designs were "the province of patent, trademark, or trade dress law." *Id.* However, Judge (now Justice) Alito characterized the comparable name and numbering system in *Southco* as functional. *Southco, Inc. v. Kanebridge Corp.*, 390 F.3d 276, 284 (3d Cir. 2004). Malkan agrees because the names and numbers were mechanically generated from the system rules. Malkan, *supra* note 1, at 437–42.

258. 17 U.S.C. § 101 (2012).

259. *Id.*

treatment to payers.”²⁶⁰ When seeking reimbursement from an insurance company for performing a particular procedure (e.g., root canal surgery) for a patient, dentists entered the pertinent number for that procedure on a form and sent the form to the insurance company.²⁶¹ Use of the numbers made the task of “billing easier for dentists, their clients, and insurance companies.”²⁶²

The district court in *ADA* pointed out that “the Code has become ubiquitous in the dental industry and is used now so frequently as a shorthand for dental procedures that those within the dental industry would recognize a specific code number as a particular procedure.”²⁶³ By the ubiquity of their adoption, the names and numbers had become “a matter of convention and strict industry standards,” and not the result of “discretion . . . based on . . . personal taste and judgment.”²⁶⁴ The ADA itself describes the Code names and numbers as a “coding system,” not as a “taxonomy.”²⁶⁵ The systematic nature of the organization of the names and numbers is what makes them constituent elements of the sort of system that is unprotectable under *Baker*, its progeny, and § 102(b).²⁶⁶

Subsequent plaintiffs in the *Southco* and *ATC* cases relied heavily on the *ADA* decision in support of their claims of copyright in the name-and-numbering schemes created for their

260. *Am. Dental Ass’n v. Delta Dental Plans Ass’n*, 39 U.S.P.Q.2d (BNA) 1714, 1716 (N.D. Ill. 1996), *rev’d*, 126 F.3d 977 (7th Cir. 1997).

261. *Id.*

262. *Id.* at 1723. Perhaps the need for this Code arose because dentists have bad handwriting.

263. *Id.* at 1716; *see also* Beldiman, *supra* note 18, at 30 (“Gratuitous variation from the language impedes communication.”); Samuelson, *Reconceptualizing Merger*, *supra* note 50, at Part IV.E (explaining that the merger doctrine sometimes avoids needless variation in language).

264. *ADA*, 39 U.S.P.Q.2d (BNA) at 1727 (quoting *Mid Am. Title Co. v. Kirk*, 59 F.3d 719, 722 (7th Cir. 1995)).

265. *See American Dental Association Offers Updated Coding Books*, AM. DENTAL ASS’N (Aug. 2, 2013), <http://www.ada.org/en/press-room/news-releases/2013-archive/august/american-dental-association-offers-updated-coding-books> [https://perma.cc/3XQQ-DRRD]. Calling the Code names and numbers a “taxonomy” instead of a coding system was a clever legal strategy to avoid § 102(b) and rulings such as *Brief English Sys. v. Owen*, 48 F.2d 555, 556 (2d Cir. 1931) (holding shorthand system unprotectable by copyright law); *see also* Malkan, *supra* note 1, at 453–57 (criticizing *ADA* because the taxonomy at issue in that case was a rule-based system).

266. Judge Easterbrook was sarcastically dismissive of Delta’s § 102(b) defense. *Am. Dental Ass’n v. Delta Dental Plans Ass’n*, 126 F.3d 977, 980 (7th Cir. 1997) (“But what could it mean to call the Code a system? This taxonomy does not come with instructions for use, as if the Code were a recipe for a new dish.”). I have explained elsewhere why the ADA coding system should have been unprotectable by copyright law under § 102(b). *See* Pamela Samuelson, *Questioning Copyright in Standards*, 48 B.C. L. REV. 193, 200–03, 206–14 (2007); *see also supra* Part II.D.3 for a discussion of the unprotectability of systematic organizations of information.

product catalogs.²⁶⁷ But by rejecting *ADA*-like copyright claims in name-and-numbering schemes, the *Southco* and *ATC* decisions considerably weakened the strength of *ADA* as a precedent.²⁶⁸

2. *CCC Information Services v. Maclean Hunter Market Reports*. Maclean Hunter was the publisher of a series of books, widely known as the “Red Book,” which contained long lists of used car valuations of various makes, models, and engine types for different regions of the United States.²⁶⁹ CCC developed a database into which it incorporated substantial portions of the data from the Red Book.²⁷⁰ After Maclean Hunter objected to this appropriation, CCC filed a lawsuit asking for the court to declare its use of facts from the Red Book as non-infringing.²⁷¹ The district court ruled in CCC’s favor, and Maclean Hunter appealed.²⁷²

The main question that Judge Leval addressed in his opinion for the Second Circuit in *CCC* was whether estimates of used car prices published in the Red Book were unprotectable “facts” under the *Feist* decision.²⁷³ He distinguished *Feist* as a case about “discovered” facts (i.e., telephone numbers).²⁷⁴ The Red Book used car prices were, by contrast, not “reports of historical prices nor mechanical derivations of historical prices,” but rather the product of “professional judgment and expertise” as well as predictions about competition among cars over time.²⁷⁵ The Red Book “expresses a loose judgment that values are likely to group together with greater consistency within a defined region than without,” producing a number that is “necessarily

267. *Southco, Inc. v. Kanebridge Corp.*, 390 F.3d 276, 288–89 (3d Cir. 2004); *ATC Distribution Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 708–09 (6th Cir. 2005).

268. The Nimmer treatise considers *Southco* to have called the *ADA* decision into question. 1 NIMMER & NIMMER, *supra* note 8, § 3.04[B][2][c]; see also 1 GOLDSTEIN, *supra* note 18, § 2.2.1.1 (opining that numbers, however original they may be, are unexpressive). Others have criticized the *ADA* decision as well. See, e.g., Beldiman, *supra* note 18, at 30–31; Malkan, *supra* note 1, at 454–55.

269. *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 63 (2d Cir. 1994).

270. *Id.*

271. *Id.* at 64. CCC also claimed that the Red Book valuations were in the public domain because state laws and regulations require use of Red Book valuations as the basis for insurance reimbursements. *Id.* at 73. The Second Circuit rejected this claim, suggesting that it might raise “very substantial questions under the Takings Clause of the Constitution.” *Id.* at 74.

272. *Id.* at 63–64.

273. *Id.* at 64–68.

274. *Id.* at 67.

275. *Id.*

both approximate and original.”²⁷⁶ Indeed, Judge Leval asserted in *CCC* that “[t]he valuations themselves are original creations of Maclean.”²⁷⁷

A second issue addressed in *CCC* was whether the expression of used car values in the Red Book had merged with ideas expressed.²⁷⁸ In addressing this issue, Judge Leval sought to reconcile two contradictory copyright “imperatives,” one calling for protection for creations, such as compilations, that advance knowledge, and the other calling for limits on the protection of such creations to advance knowledge.²⁷⁹ Judge Leval worried that “virtually nothing will remain of the protection accorded by the statute to compilations” if the court ruled in favor of *CCC*’s merger defense.²⁸⁰ The task was to conceptualize the merger doctrine so as to avoid going against “the express command of the copyright statute” to protect original compilations.²⁸¹

Judge Leval observed that copyright law does not extend protection to ideas because allowing free access to ideas is critically important to the ongoing advancement of knowledge.²⁸² This led him to conceptualize merger as a doctrine that should be invoked when building blocks of knowledge were at stake.²⁸³ The opinion distinguished between “two categories of ideas,” hard ones “that undertake to advance the understanding of phenomena or the solution of problems, such as the identification of the symptoms that are most useful in identifying the presence of a particular disease,” and soft ones “that merely represent an author’s taste or opinion,” which “therefore do not materially assist the understanding of future thinkers.”²⁸⁴

276. *Id.*

277. *Id.* This aspect of Judge Leval’s opinion is echoed in Judge Easterbrook’s later decision in the *ADA* case, in which the latter opined that each name and number in the *ADA* taxonomy was an original work of authorship. *Am. Dental Ass’n v. Delta Dental Plans Ass’n*, 126 F.3d 977, 979 (7th Cir. 1997). With regard to the work as a compilation, Judge Leval found “amply sufficient originality” in the selection and arrangement of data in the Red Book in response to the needs of the market. *CCC*, 44 F.3d at 67.

278. *CCC*, 44 F.3d at 68–73.

279. *Id.* at 68–69. Specific to compilations, Judge Leval noted that “it is almost inevitable that the original contributions of the compilers will consist of *ideas*.” *Id.* at 70; see also *Kregos v. Associated Press*, 937 F.2d 700, 706 (2d Cir. 1991) (“In one sense, every compilation of facts can be considered to represent a merger of an idea with its expression.”).

280. *CCC*, 44 F.3d at 70. Surely this statement was an exaggeration.

281. *Id.*

282. *Id.* at 68–69.

283. *Id.* at 71. (“[P]rotecting the [necessary] ‘expression’ of the selection would clearly risk protecting the idea of the analysis.” (quoting *Kregos*, 937 F.2d at 707)).

284. *Id.*

Judge Leval regarded the Red Book used car prices as ideas “of the soft type,” which should be treated as expressive.²⁸⁵ “To the extent that protection of the Red Book would impair the free circulation of any ideas, these are ideas of the weaker category, infused with opinion. . . .”²⁸⁶ The *CCC* decision regarded the merger doctrine as applicable only when the public needed free access to those hard ideas that are building blocks of knowledge.²⁸⁷

Even if one regards the outcome in *CCC* to be sound,²⁸⁸ its conceptualization of merger as available only when hard ideas, that is, building blocks of knowledge, are at stake, is demonstrably erroneous. It is contrary to the 1976 Act, which directs that all ideas, not just hard ones, are unprotectable.²⁸⁹ Such a distinction is, moreover, untenable because courts cannot be expected to determine in a principled way which ideas are hard or soft.²⁹⁰ To some people, baseball statistics are building blocks of knowledge, while for others, they are not.²⁹¹ The merger doctrine is not about hard or soft ideas or about building blocks of

285. *Id.* at 71–72.

286. *Id.* at 72–73. The court also said that the Red Book opinions “explain nothing, and describe no method, process or procedure.” *Id.* at 73. This suggests that the valuations were not expressive in a copyright sense. The Ninth Circuit followed *CCC* in *CDN Inc. v. Kapes*, 197 F.3d 1256, 1260–61 (9th Cir. 1999) (holding coin valuations as copyright-protectable because they are not mechanically derived). *See also* *Health Grades, Inc. v. Robert Wood Johnson Univ. Hosp., Inc.*, 634 F. Supp. 2d 1226, 1234 (D. Colo. 2009) (holding ratings for hospital quality as copyrightable and rejecting merger defense by relying on *CCC*).

287. *CCC*, 44 F.3d at 73.

288. The holding in *CCC* would have been easier to justify had the Supreme Court in *Feist* not rejected sweat-of-the-brow copyrights. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 352–55 (1991). The economic rationale for protection was based on the fact that *CCC* had created a database containing substantial parts of the used car prices from the Red Book. *CCC*, 44 F.3d at 72. It competed directly with Maclean Hunter's book and usurped some of its ability to recoup investments in creating this very useful information resource or to license authorized use of the data in a database. *Id.* at 64.

289. *See* 17 U.S.C. § 102(b) (2012).

290. The *CCC* decision and its approach to deciding whether compilations are protectable by copyright law has been much criticized in the literature. *See, e.g.*, Bitton, *supra* note 15, at 649–50 (criticizing the soft-hard distinction of *CCC* as “problematic” because it would inject subjective considerations into merger analysis); Dan L. Burk, *Method and Madness in Copyright Law*, 3 UTAH L. REV. 587, 616 (2007) (criticizing *CCC* for “doing enormous violence to the structure of the copyright system” by treating copyright as a general misappropriation statute); James Grimmelmann, *Three Theories of Copyright in Ratings*, 14 VAND. J. ENT. & TECH. L. 851, 876–80 (2012) (criticizing *CCC* because used car valuations are useful, treated as facts, and not just personal opinions); Preonas, *supra* note 63, at 93–94 (criticizing *CCC* as too subjective to be workable).

291. *See* *Kregos v. Associated Press*, 937 F.2d 700, 701–02, 707 (2d Cir. 1991) (reversing a grant of summary judgment that had been based on Kregos's selection of nine statistics about pitcher performance to predict the outcomes of baseball games as an unprotectable method or blank form). *But see* MICHAEL LEWIS, *MONEYBALL: THE ART OF WINNING AN UNFAIR GAME* (2004) (showing how an Oakland baseball team used statistics about player performances to build a winning team).

knowledge alone; it is about the existence of constraints on the practical range of authorial expressions.²⁹²

Among the litigants who relied on the copyright analysis in the CCC decision was Continental Micro, which claimed that the space and depth data its employees had written on code cards were sufficiently infused with personal opinion and judgment to satisfy copyright's originality standard.²⁹³ Others who measured the same keys, Continental asserted, might have arrived at different numbers.²⁹⁴ The court in *Continental Micro* decided that the data were unprotectable either as facts under *Feist* or because of a merger of fact and expression in the data.²⁹⁵ The court did not address whether there was any originality in the selection and arrangement of those data that might make a compilation of the data copyrightable.²⁹⁶ The claim, it seemed, was that the data themselves were original under the dictum in CCC.²⁹⁷

N.Y. Mercantile Exchange, Inc. v. Intercontinental Exchange, Inc., like *Continental Micro*, involved a compilation of data claimed to be original enough to qualify for copyright protection.²⁹⁸ As in *Continental Micro*, New York Mercantile Exchange (NYMEX) asserted that its infusion of personal opinion into the creation of the data made them copyrightable.²⁹⁹ The data at issue in *NYMEX* were settlement prices NYMEX promulgated as the end-of-trading-day closing prices for commodity futures sold on that exchange.³⁰⁰ NYMEX sought to stop ICE from using the settlement prices on the latter's trading platform.³⁰¹

292. See, e.g., Samuelson, *Reconceptualizing Merger*, *supra* note 50, at 18.

293. *Cont'l Micro, Inc. v. HPC, Inc.*, No. 95 C 3829, 1997 WL 309028, at *1 (N.D. Ill. June 4, 1997).

294. *Id.*

295. *Id.* at *1–2.

296. Bitton, *supra* note 15, at 651.

297. *Continental Micro*, 1997 WL 102541, at *4.

298. 497 F.3d 109, 110 (2d Cir. 2007), The plaintiff had sought to obtain a copyright for its database including the settlement prices, but the Copyright Office registered copyright in the database only. *Id.* at 112. See generally *Banxcorp. v. Costco Wholesale Corp.*, 978 F. Supp. 2d 280 (S.D.N.Y. 2013) (holding plaintiffs' estimates of average interest rates not protectable as a compilation even if others had made different estimates, following *NYMEX*). The CCC decision and its endorsement of copyright protection in created numbers may also have emboldened the American Bankers' Association (ABA) to assert copyright in the set of bank wire transfer numbers that it had promulgated and to send cease-and-desist letters to operators of websites that had posted the numbers. See Mike Masnick, *American Bankers' Association Claims Routing Numbers Are Copyrighted*, TECHDIRT (June 25, 2013, 9:48 AM), <https://www.techdirt.com/articles/20130621/13594123566/american-bankers-association-claims-routing-numbers-are-copyrighted.shtml> [<https://perma.cc/29W2-B6ZL>].

299. *N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc.*, 497 F.3d 109, 115–16, 115 n.6 (2d Cir. 2007).

300. *Id.* at 111.

301. *Id.* at 112.

The trial court ruled that these data were unprotectable as “real-world facts.”³⁰² The Second Circuit dodged deciding whether there was enough originality to support a claim of copyright in the settlement prices, but concluded that even assuming some originality, any expression in the prices had merged with the idea being expressed.³⁰³ The court took into account that NYMEX was required by law to report on settlement prices and that the prices “are heavily relied upon because they ‘reflect actual trades,’ not mere sentiment.”³⁰⁴

The NYMEX claim of originality in settlement prices seemed plausible not only because of the Second Circuit’s prior ruling in *CCC*, but also because *Feist* had declared that “facts do not owe their origin to an act of authorship.”³⁰⁵ The unprotectability of facts, the Court asserted, derived from their being discoveries that § 102(b) excludes from protection.³⁰⁶ This reasoning implied that created facts might be original enough to qualify for protection, and *CCC* had seemingly endorsed the copyrightability of created facts.³⁰⁷ NYMEX claimed that it was the creator of the settlement prices, and because there were a number of alternative prices they could have chosen instead, the prices they settled on were original enough to qualify as protectable creations.³⁰⁸

The Second Circuit in *NYMEX* characterized as dicta *CCC*’s endorsement of used-car valuations as copyrightable creations, saying that that decision should be understood as having held only that Maclean Hunter’s compilation of used car valuations was protectable, not that the data themselves were protectable.³⁰⁹ The only issue addressed in *NYMEX* was

302. *N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc.*, 389 F. Supp. 2d 527, 542 (S.D.N.Y. 2005). The district court also held the settlement prices to be unprotectable on merger grounds and excluded under the words and short phrases doctrine. *Id.* at 542–44.

303. *NYMEX*, 497 F.3d at 115–18. That fact and expression might sometimes be too intermingled to uphold an infringement claim was recognized in Gorman, *supra* note 15, at 575–76.

304. *NYMEX*, 497 F.3d at 115, 118. The United States government filed an amicus curiae brief in support of ICE. *Id.* at 113.

305. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 347 (1991).

306. *Id.* The Court relied on the Nimmer treatise’s explanation for this conclusion. *Id.* (citing 1 NIMMER & NIMMER, *supra* note 8, § 2.11[A]). The Second Circuit in *NYMEX* grappled with this aspect of *Feist* in its discussion of ICE’s unprotectable fact defense. *NYMEX*, 497 F.3d at 114–16.

307. For a thoughtful analysis of the copyright status of created facts, see generally Justin Hughes, *Created Facts and the Flawed Ontology of Copyright Law*, 83 NOTRE DAME L. REV. 43 (2007).

308. *See N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc.*, 389 F. Supp. 2d 527, 531 (S.D.N.Y. 2005).

309. *NYMEX*, 497 F.3d at 115 n.5. The court also distinguished the created facts in

whether the data themselves were original enough to qualify for copyright protection.³¹⁰ Like the district court in *Continental Micro*, the Second Circuit in *NYMEX* found it unnecessary to address whether there was enough creativity in NYMEX's selection and/or arrangement of the data to qualify for protection as a compilation.³¹¹ However, it seems unlikely that there was sufficient originality in selection and/or arrangement of the data for the end-of-day trading prices promulgated by NYMEX to qualify as a copyrightable compilation.³¹² It is a relief that the Second Circuit's *NYMEX* decision put to rest the idea mistakenly conceived in *CCC* that original data are copyrightable. But the holding in *CCC* remains troubling insofar as that case is closer to the functional compilation endpoint of the spectrum than to the expressive compilation endpoint.

IV. CONCLUSION

Copyright law aims to protect not originality per se, but expressive originality. Some compilations easily satisfy the expressive originality standard, while others just barely clear the bar. Some compilations, however, lack the kind of expressive originality that is necessary to support a claim of copyright in an intellectual creation. Since *Feist* forbids granting copyright protection based on sweat-of-the-brow rationale, some functional compilations lie outside the bounds of copyright protection. Others may qualify for copyright protection, but have only a very thin scope.³¹³

The compilation case law offers several policy rationales for limiting copyright in functional compilations. A common theme has been to ensure that copyright law does not grant patent-like

CCC from those in *NYMEX* because NYMEX's customers and the clearinghouse "treat[ed] the settlement prices as indisputable facts," whereas *CCC* had instructed users of the Red Book to use their own judgment about the valuations. *Id.*

310. See Bitton, *supra* note 15, at 654.

311. See *id.* at 655–66.

312. I agree with Professor Bitton that if someone holds out calculated values as facts, courts should treat them as facts. *Id.* at 655. Bitton notes that *CCC* tried to establish themselves as the authority or the industry standard in the field of used car valuations and wanted consumers to perceive their valuations as reflective of the real value of the car and thereby rely on them. Thus [the] Red Book wanted its valuations to be viewed as facts and not as personal opinions. *Id.* at 660.

313. See, e.g., *Bellsouth Advert. & Publ'g Corp. v. Donnelley Info. Publ'g, Inc.*, 999 F.2d 1436, 1444–46 (11th Cir. 1993) (upholding yellow pages directory copyright, but recognizing the copyright was not infringed based in part on Donnelley's use of functional elements of Bellsouth's directory); *Decorative Aids Corp. v. Staple Sewing Aides Corp.*, 497 F. Supp. 154, 158 (S.D.N.Y. 1980), *aff'd*, 657 F.2d 262 (2d Cir. 1981).

rights to functional designs, including methods and systems that are or may be patent subject matter.³¹⁴ This harkens back to the Supreme Court's admonition in *Baker* that exclusive rights in useful art innovations must come from the patent system, not through expansive interpretations of copyright law.³¹⁵

Another common theme has been fidelity to the Supreme Court's dual mandate in *Feist* that copyright law should not extend protection to facts and that "sweat-of-the-brow" or industrious efforts in compiling data do not justify a grant of copyright protection in a compilation that is lacking in creative originality.³¹⁶ The Court made clear that facts must be free for the taking in order to advance the constitutional purpose of copyright law. The Court in *Feist* asserted that allowing raw facts to be copied at will is "not some unforeseen byproduct of a statutory scheme," but "rather, 'the essence of copyright,'" and indeed "a constitutional requirement."³¹⁷ Allowing second comers to build on the facts and ideas of previous generations of authors' discoveries is how copyright law promotes the ongoing progress of knowledge. In cases such as *NYMEX*, courts have recognized that the operation of marketplace also relies upon freedom of facts from copyright constraints.

Courts have been much less inclined to express concerns about transaction costs that a grant of copyright in a functional compilation might impose. However, threaded throughout the functional compilation case law are concerns about the burdens that unwarranted monopolies in compiled information would impose on second comers.³¹⁸ Regardless of the doctrinal basis on which courts rest their assessments of functionality, the

314. See, e.g., *Baker v. Selden*, 101 U.S. 99, 104–05 (1879); *Bikram's Yoga Coll. of India, L.P., v. Evolution Yoga, LLC*, 803 F.3d 1032, 1039–40 (9th Cir. 2015); *Publ'ns Int'l, Ltd. v. Meredith Corp.*, 88 F.3d 473, 479 (7th Cir. 1996); *Taylor Instrument Cos. v. Fawley-Brost Co.*, 139 F.2d 98, 100–01 (7th Cir. 1943); *Project Dev. Grp., Inc. v. O.H. Materials Corp.*, 766 F. Supp. 1348, 1354 (W.D. Pa. 1991), *aff'd*, 993 F.2d 225 (3d Cir. 1993); *Cont'l Micro, Inc. v. HPC, Inc.*, No. 95 C 3829, 1997 WL 309028, at *2 (N.D. Ill. June 4, 1997). Trademark law may also provide alternative protections to some compilation copyright claimants, such as Bikram Choudhury, who can license use of his name and trademarks to studios that want to be associated with his brand of yoga. Other studios, such as Evolution's, have to be content to practice the same yoga sequence, but without using any Bikram trademarks.

315. *Baker*, 101 U.S. at 104–05.

316. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345–48, 352–55 (1991).

317. *Id.* at 349 (quoting *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 589 (1985) (Brennan, J., dissenting)).

318. See, e.g., *Southco, Inc. v. Kanebridge Corp.*, 390 F.3d 276, 287 (3d Cir. 2004) (Becker, J., concurring); *SmithKline Beecham Consumer Healthcare, L.P., v. Watson Pharm., Inc.*, 211 F.3d 21, 29 n.5 (2d Cir. 2000); *Continental Micro*, 1997 WL 309028 at *2.

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underlying policy of allowing free re-use of information and other unprotectable elements embodied in compilations should prevail in the context of compilations, just as it does in copyrighted works more generally.